

MARKET MONITOR REPORT FOR AUCTION 21

Prepared for:

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

Prepared By:



September 6, 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 (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 21

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 21, which was held on September 4, 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-two bidders participated in the offering of CO₂ allowances for the current control period. Bids were submitted to purchase 2.0 times the available supply of allowances, resulting in a clearing price of \$2.67 per ton. Compliance entities or their affiliates purchased 53 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.
- There were no indications of issues with the auction platform such as hardware or software problems, communications issues, or security breaches.

Sensitive information was treated in a manner consistent with auction rules and procedures, with one exception. In one instance, information provided by one bidder was inadvertently sent to another bidder during the auction qualification process. The bidder was allowed to re-submit the information, and there is no indication that participation in the auction was adversely affected.

In summary, the results of our monitoring of RGGI Auction 21 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 17 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.

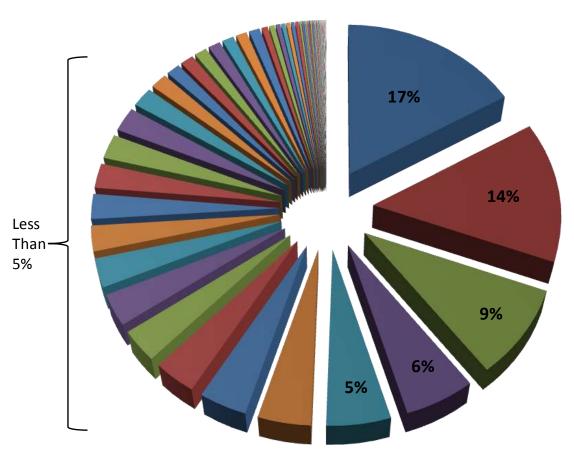


Figure 1: Projected Demand for RGGI Allowances Shares by Compliance Entity



B. DISPERSION OF BIDS IN AUCTION 21

In the offering of allowances for the current control period, bids were submitted by 33 compliance entities and nine 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. Seven compliance entities and six other entities submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, compliance entities accounted for 54 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.0 times the available supply in Auction 21, down slightly from 2.1 times the available supply in Auction 20 and 2.2 times the available supply in Auction 19.

The bid quantities were widely distributed among the 42 bidders. The concentration of bids, using the Herfindahl-Hirschman Index ("HHI"), was relatively low at 635 in Auction 21, up from 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).

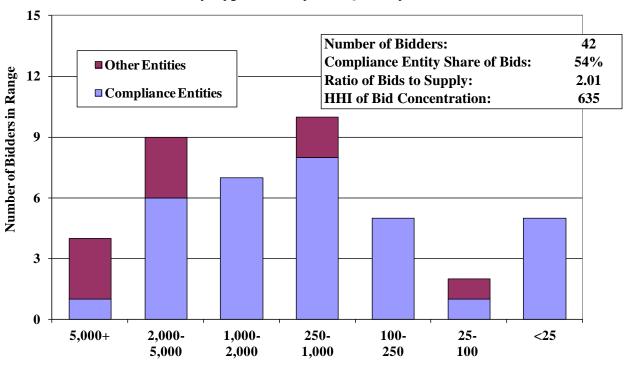


Figure 2: Quantity of Bids Submitted by Entity By Type of Entity and Quantity Bid

Quantity of Bids Submitted (in Thousands of Tons)



C. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 21

In the offering of allowances for the current control period, awards were distributed across 38 bidders with seven bidders purchasing two million tons or more and 23 bidders purchasing 300,000 tons or more. Compliance entities or their affiliates purchased 53 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-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 21, compliance entities and their affiliates purchased 53 percent of the allowances sold.
- In the first 21 RGGI auctions, compliance entities and their affiliates purchased 84 percent of the allowances sold.
- Compliance entities and their affiliates will hold 82 percent of the allowances in circulation following the settlement of allowances sold in Auction 21.

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 | 9,445,043 |
| Bidder 2 | 3,000,000 |
| Bidder 3 | 2,600,000 |
| Bidder 4 | 2,300,000 |
| Bidder 5 | 2,235,000 |
| Bidder 6 | 2,109,000 |
| Bidder 7 | 2,000,000 |
| Bidder 8 | 1,492,000 |
| Bidder 9 | 1,350,000 |
| Bidder 10 Bidder 11 | 1,225,000 1,100,000 |
| Bidder 12 | 1,060,000 |
| Bidder 13 | 1,045,000 |
| Bidder 14 | 1,007,000 |
| Bidder 15 | 1,000,000 |
| Bidder 16 | 1,000,000 |
| Bidder 17 | 725,000 |
| Bidder 18 | 550,000 |
| Bidder 19 | 500,000 |
| Bidder 20 | 450,000 |
| Bidder 21 | 350,000 |
| Bidder 22 | 317,000 |
| Bidder 23 | 315,000 |
| Bidder 24 | 250,000 |
| Bidder 25 | 200,000 |
| Bidder 26 | 168,000 |
| Bidder 27 | 164,000 |
| Bidder 28 | 105,000 |
| Bidder 29 | 100,000 |
| Bidder 30 | 50,000 |
| Bidder 31 | 50,000 |
| Bidder 32 | 50,000 |
| Bidder 33 | 46,000 |
| Bidder 34 | 20,000 |
| Bidder 35 | 10,000 |
| Bidder 36 | 9,000 |
| Bidder 37 | 6,000 |
| Bidder 38 | 6,000 |



D. SUMMARY OF BID PRICES IN AUCTION 21

Bids were submitted across a wide range of prices in the auction and the clearing price of \$2.67 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 21. The median and mean bid prices are weighted by the quantity of each bid.

| Bid Prices: | |
|------------------|---------------|
| Minimum | \$1.98 |
| Maximum | \$12.85 |
| Average (Median) | \$2.66 |
| Average (Mean) | \$2.79 |
| Clearing Price: | \$2.67 |



E. NAMES OF POTENTIAL BIDDERS IN AUCTION 21

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 21 on September 4, 2013, the Participating States are releasing the names of Potential Bidders in Auction 21. 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

Astoria Generating Company, LP Berkshire Power Company, LLC

Brooklyn Navy Yard Cogen Partners, LP

Caithness Long Island, LLC Calpine Energy Services, LP Castleton Power, LLC CE2 Carbon Capital, LLC ClimeCo Corporation

Consolidated Edison Comp. of NY, Inc.

CP Energy Marketing (US) Inc.

Delaware City Refining Company, LLC

DTE Energy Trading, Inc.

Dynegy Marketing and Trade, LLC EDF Trading North America, LLC Empire Generating Co., LLC

Entergy Rhode Island State Energy, LP

EquiPower Resources

Exelon Generation Company, LLC

Footprint Power Salem Harbor Operations, LLC

GenOn Energy Management, LLC Granite Ridge Energy, LLC H.Q. Energy Services (U.S.) Inc.

Hess Corporation (G)

Indeck Energy Serv. of Silver Springs Indeck-Corinth Limited Partnership Indeck-Oswego Limited Partnership Jamestown Board of Public Utilities J-Power USA Development Co., Ltd.

Kleen Energy Systems, LLC Koch Supply & Trading, LP Lakeside Energy, LLC

Luminus Energy Partners QP, LP Mercuria Energy America, Inc. Millennium Power Partners, LP Morgan Stanley Capital Group, Inc. National Grid Gen. dba National Grid New Athens Generating Company, LLC NextEra Energy Power Marketing, LLC

NRG Power Marketing, LLC

Power Authority of the State of New York PSEG Energy Resources & Trade, LLC Public Service Company of New Hampshire

RBC

Selkirk Cogen Partners, LP

Shell Energy North America (US), LP Twin Eagle Resource Management, LLC Upstate New York Power Producers, LLC

Verso Paper Corp. Village of Freeport

Vitol Inc.

Wallingford Energy, LLC