



**MARKET MONITOR REPORT  
FOR AUCTION 28**

**Prepared for:**

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

**Prepared By:**



June 5, 2015

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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 28**

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 28, which was held on June 3, 2015.

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-eight bidders participated in the offering of CO<sub>2</sub> allowances. Bids were submitted to purchase 3.1 times the available supply of allowances, resulting in a clearing price of \$5.50 per ton. Compliance-oriented entities purchased 47 percent of the allowances in the offering. There was no indication of barriers to participation in the auction.

An additional ten million CO<sub>2</sub> allowances were available for sale in Auction 28 from the Cost Containment Reserve (“CCR”). Allowances are sold from the CCR when the auction clearing price reaches the level of the CCR Trigger Price. The CCR Trigger Price is \$6.00 per ton in 2015, so none of the CCR allowances were sold in Auction 28. These allowances will be available in the next 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 28 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<sub>2</sub> allowances and outcomes of the auction.

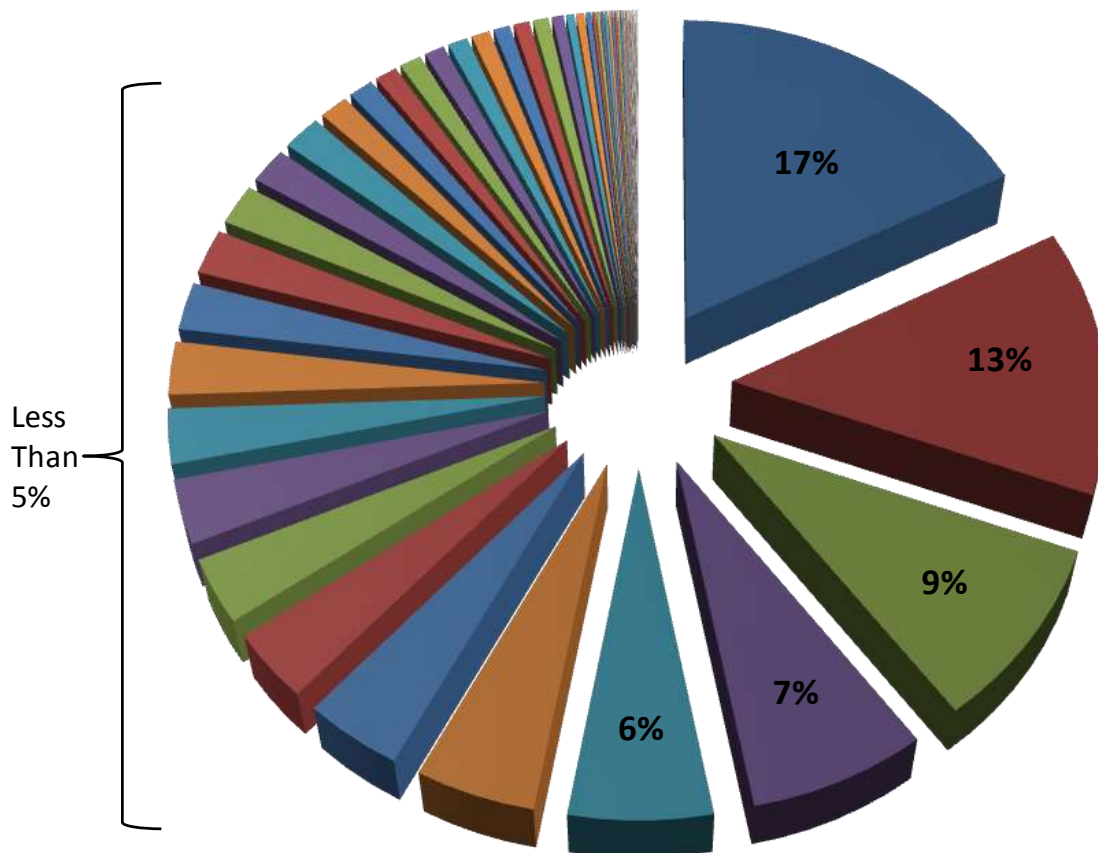
**APPENDIX**

**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. 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.

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



## **B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 28**

*In the offering of allowances for the current control period, awards were distributed across 36 bidders with six bidders purchasing one million tons or more and 12 bidders purchasing 300,000 tons or more.*

As in previous post-auction reports, this report summarizes participation by compliance entities and their affiliates.<sup>1</sup> In Auction 28, compliance entities and their affiliates purchased 68 percent of the allowances sold. In the first 28 RGGI auctions, all compliance entities and their affiliates purchased 77 percent of the allowances sold.

Beginning in this post-auction report, we also separately report the share of allowances purchased and other quantities are also reported for:

- *Compliance-Oriented Entities:* This includes most compliance entities and their affiliates. This category excludes firms that have compliance obligations but which hold a number of allowances that exceeds their estimated compliance obligations by a margin that suggests they are also buying for re-sale or some other investment purpose.<sup>2</sup>
- *Other Entities:* This includes all other entities.

The following statistics summarize the purchases and holdings of allowances by type of participant under the RGGI program:

- In Auction 28, compliance-oriented entities purchased 47 percent of the allowances sold.
- After settlement of allowances sold in Auction 28, 55 percent of the allowances in circulation will be held by firms that are believed to hold them for compliance purposes.<sup>3</sup>

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<sup>1</sup> 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.

<sup>2</sup> The assessment of whether a compliance entity holds a number of allowances that exceeds its compliance obligations by a margin that suggests they are also buying for re-sale or some other investment purpose is based on: (a) the entity's forecasted share of the total compliance obligations for the entire RGGI footprint through 2020 and (b) the total number of allowances in circulation.

<sup>3</sup> The number of allowances that are believed to be held for compliance purposes includes 100 percent of the allowances held by compliance-oriented entities and a portion of allowances held by other compliance entities that are not included in the compliance-oriented category.

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**

<b>Bidder</b>	<b>Number of Allowances Awarded</b>
Bidder 1	3,020,000
Bidder 2	1,931,571
Bidder 3	1,500,000
Bidder 4	1,449,000
Bidder 5	1,250,000
Bidder 6	1,200,000
Bidder 7	623,000
Bidder 8	525,000
Bidder 9	450,000
Bidder 10	359,000
Bidder 11	350,000
Bidder 12	325,000
Bidder 13	250,000
Bidder 14	236,000
Bidder 15	215,000
Bidder 16	200,000
Bidder 17	200,000
Bidder 18	187,000
Bidder 19	175,000
Bidder 20	151,000
Bidder 21	135,000
Bidder 22	125,000
Bidder 23	120,000
Bidder 24	100,000
Bidder 25	100,000
Bidder 26	68,000
Bidder 27	60,000
Bidder 28	50,000
Bidder 29	50,000
Bidder 30	30,000
Bidder 31	25,000
Bidder 32	22,000
Bidder 33	10,000
Bidder 34	7,000
Bidder 35	5,000
Bidder 36	4,000

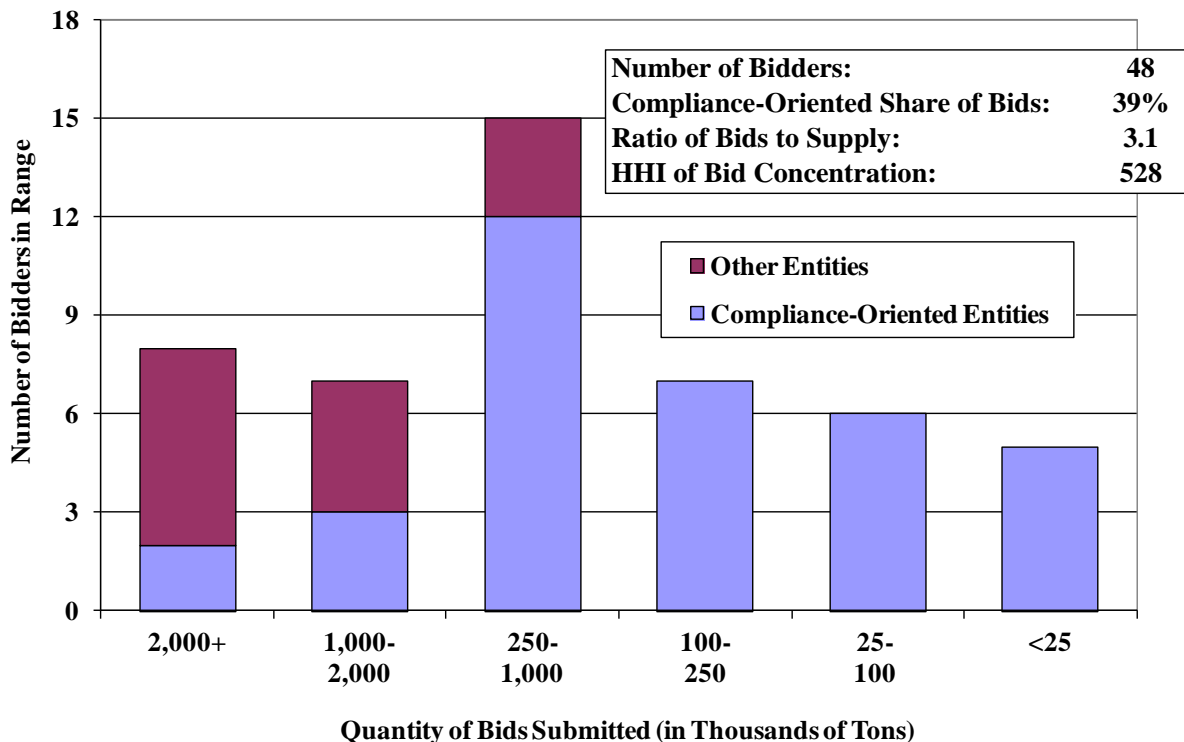
**C. DISPERSION OF BIDS IN AUCTION 28**

*In the offering of allowances for the current control period, bids were submitted by 35 compliance-oriented entities and 13 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. Two compliance-oriented entities and six other entities submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, compliance-oriented entities accounted for 39 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 15,507,571 allowances. In Auction 27, the quantity of allowances for which bids were submitted was 2.8 times the Initial Offering of 15,272,670 allowances.

The bid quantities were widely distributed among the 48 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 528, consistent with recent auctions. 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**



**D. SUMMARY OF BID PRICES IN AUCTION 28**

*Bids were submitted across a wide range of prices in the auction and the clearing price of \$5.50 was relatively consistent with average bid prices submitted.*

The following table reports several statistics regarding the bid prices for bids submitted in Auction 28. The median and mean bid prices are weighted by the quantity of each bid.

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<b>Bid Prices:</b>	
<b>Minimum</b>	<b>\$2.05</b>
<b>Maximum</b>	<b>\$12.50</b>
<b>Average (Median)</b>	<b>\$5.38</b>
<b>Average (Mean)</b>	<b>\$4.82</b>
<b>Clearing Price:</b>	<b>\$5.50</b>

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**E. NAMES OF POTENTIAL BIDDERS IN AUCTION 28**

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 28 on June 3, 2015, the Participating States are releasing the names of Potential Bidders in Auction 28. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid*.” The list of 53 Potential Bidders is as follows:

Astoria Energy, LLC	Indeck-Yerkes Limited Partnership
Brookfield Energy Marketing LP	Jamestown Board of Public Utilities
Brooklyn Navy Yard Cogen Partners, LP	J-Power USA Development Co., Ltd.
Caithness Long Island, LLC	Kendall Green Energy, LLC
Calpine Energy Services, LP	Kleen Energy Systems, LLC
Castleton Commodities Merchant Trading, LP	Koch Supply & Trading, LP
Castleton Power, LLC	Luminus Energy Partners Master Fund, Ltd.
CE2 Carbon Capital, LLC	Massachusetts Bay Transportation Auth.
City of Dover	Maxim Power (USA), Inc.
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.
Delaware Municipal Electric Corp.	National Grid Gen. dba National Grid
Direct Energy Business Marketing, LLC	New Athens Generating Company, LLC
Dominion Energy Marketing, Inc.	NextEra Energy Power Marketing, LLC
DTE Energy Trading, Inc.	NRG Power Marketing, LLC
EDF Trading North America, LLC	Old Dominion Electric Cooperative
Element Markets, LLC	Power Authority of the State of New York
Entergy Rhode Island State Energy, LP	PSEG Energy Resources & Trade, LLC
Essential Power, LLC	Public Service Company of New Hampshire
Exelon Generation Company, LLC	RBC
GDF SUEZ Energy Marketing NA, Inc.	Selkirk Cogen Partners, LP
GenOn Energy Management, LLC	TransCanada Power Marketing, Ltd.
Granite Ridge Energy, LLC	Upstate New York Power Producers, LLC
Indeck-Corinth Limited Partnership	Verso Corporation
Indeck-Olean Limited Partnership	Vitol Inc.
Indeck-Oswego Limited Partnership	