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**RGGI Inc.**



**MARKET MONITOR REPORT  
FOR AUCTION 37**

**Prepared for:**

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

**Prepared By:**

**POTOMAC  
ECONOMICS**

September 8, 2017

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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 37**

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 EnerNOC, Inc. This report summarizes our findings regarding RGGI Auction 37, which was held on September 6, 2017.

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-three bidders participated in the offering of CO<sub>2</sub> allowances. Bids were submitted to purchase 2.7 times the available supply of allowances, resulting in a clearing price of \$4.35 per ton. Compliance-Oriented Entities purchased 38 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 37 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.

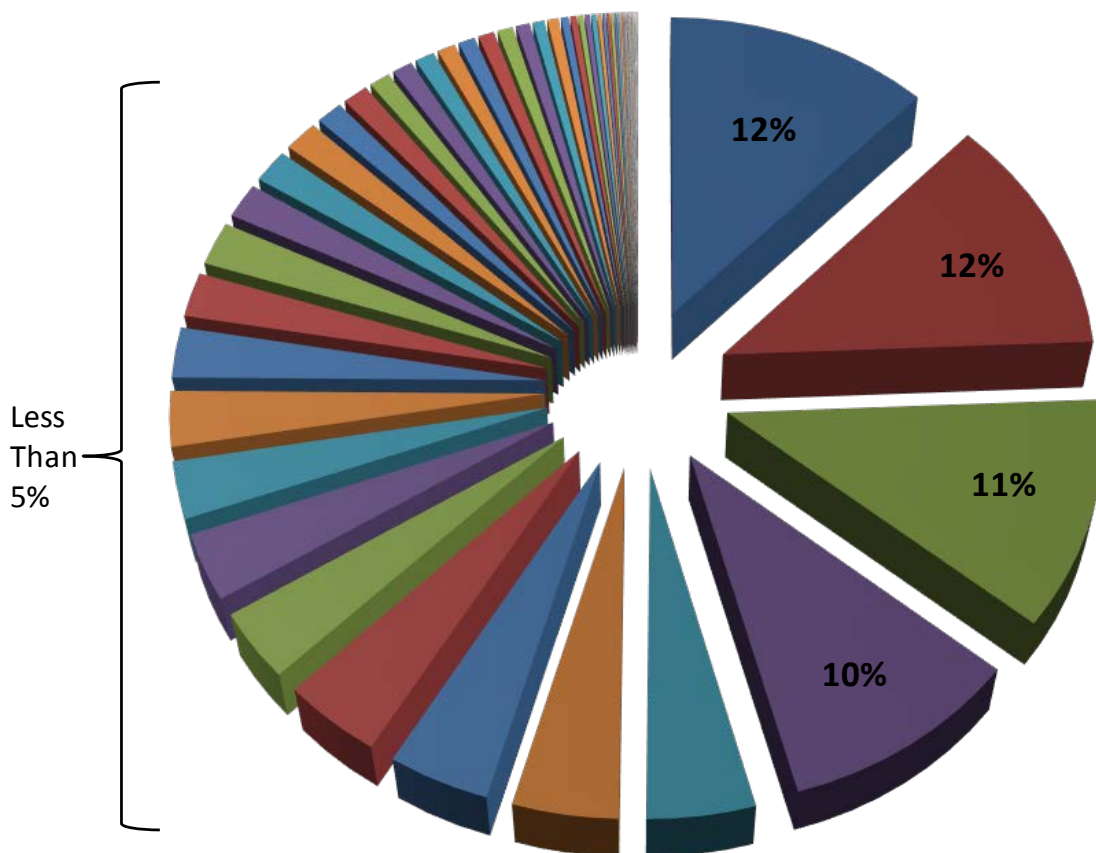
**APPENDIX**

**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 12 percent of the total projected demand for allowances. Over 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 37

*Awards were distributed across 27 bidders with six bidders purchasing one million tons or more and 14 bidders purchasing 300,000 tons or more.*

This report summarizes participation in Auction 37. For reporting purposes, firms are often broken up into the following distinct categories.

- *Compliance-Oriented Entities* – Compliance entities that appear to acquire and hold allowances primarily to satisfy their compliance obligations.
- *Investors with Compliance Obligations* – Firms that have compliance obligations but which hold a number of allowances that exceeds their estimated compliance obligations by a margin suggesting they also buy for re-sale or some other investment purpose. These firms often transfer significant quantities of allowances to unaffiliated firms.<sup>1</sup>
- *Investors without Compliance Obligations* – Firms without any compliance obligations.

These three categories form the basis for two overlapping groups.

- *Compliance Entities* – All firms with compliance obligations, and their affiliates.<sup>2</sup> Combines the first and second of the above categories.
- *Investors* – All firms which are assessed to be purchasing for investment rather than compliance purposes. Combines the second and third of the above categories.

In Auction 37, Compliance Entities purchased 47 percent of the allowances sold. In the first 37 RGGI auctions, Compliance Entities purchased 76 percent of the allowances sold. In Auction 37, Compliance-Oriented Entities purchased 38 percent of the allowances sold.

After settlement of allowances sold in Auction 37:

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<sup>1</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, (b) the total number of allowances in circulation, and (c) consideration of the pattern of the entity's allowance transfers to unaffiliated firms versus affiliated firms. Since the designation of a compliance entity as an investor is based on a review of its transactions and holdings, the designation of a particular firm may change over time as more information becomes available.

<sup>2</sup> Affiliates 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.

- Fifty-four percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Fifty-five percent of the allowances in circulation are believed to be held for compliance purposes. 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 Investors with Compliance Obligations.

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	2,000,000
Bidder 2	1,590,000
Bidder 3	1,500,000
Bidder 4	1,275,000
Bidder 5	1,150,000
Bidder 6	1,000,000
Bidder 7	969,000
Bidder 8	800,000
Bidder 9	600,000
Bidder 10	436,585
Bidder 11	350,000
Bidder 12	350,000
Bidder 13	300,000
Bidder 14	300,000
Bidder 15	250,000
Bidder 16	235,000
Bidder 17	225,000
Bidder 18	221,000
Bidder 19	159,000
Bidder 20	150,000
Bidder 21	118,000
Bidder 22	100,000
Bidder 23	100,000
Bidder 24	68,000
Bidder 25	50,000
Bidder 26	50,000
Bidder 27	25,000

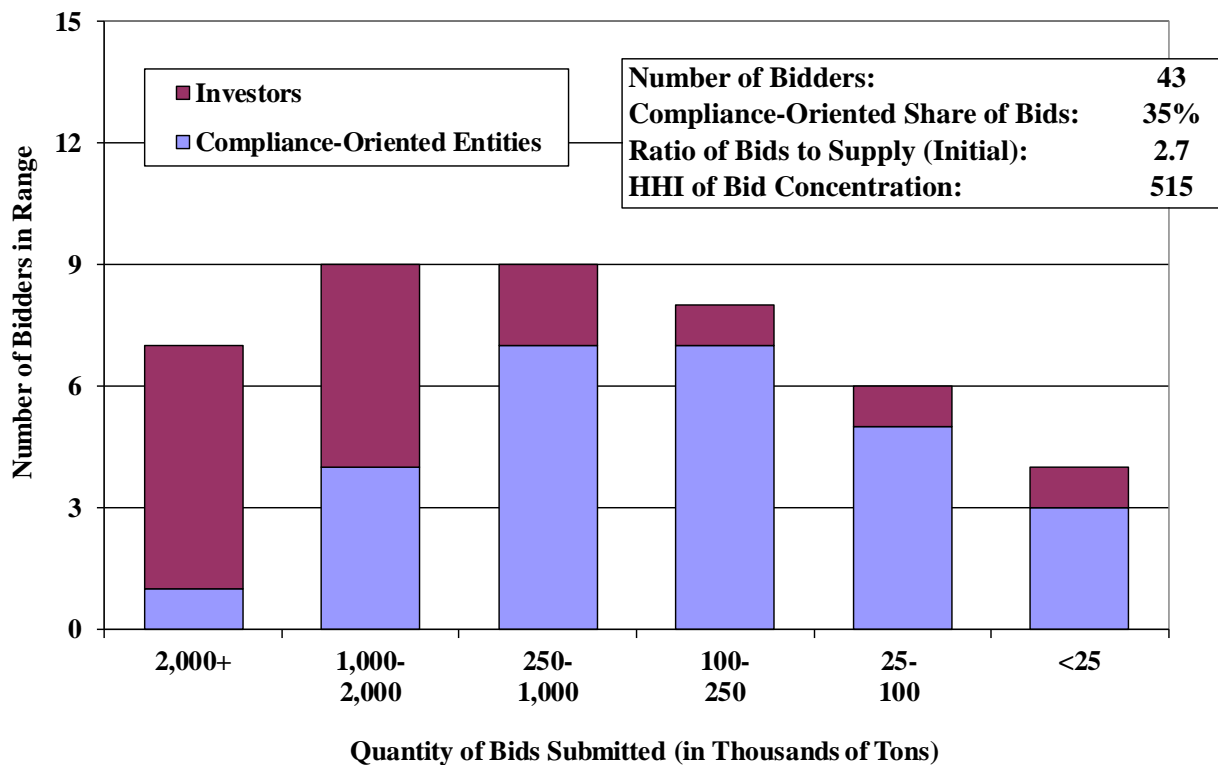
**C. DISPERSION OF BIDS IN AUCTION 37**

*Bids were submitted by 27 Compliance-Oriented Entities and 16 Investors. 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. One Compliance-Oriented Entity and six Investors submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, Compliance-Oriented Entities accounted for 35 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.7 times the available supply. In Auction 36, the quantity of allowances for which bids were submitted was 2.1 times the Initial Offering.

The bid quantities were widely distributed among the 43 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 515, 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 (i.e., 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 37**

*Bids were submitted across a wide range of prices in the auction and the clearing price of \$4.35 was relatively consistent with average bid prices submitted.*

The following table reports several statistics regarding the bid prices for bids submitted in Auction 37. 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>\$2.15</b>
<b>Maximum</b>	<b>\$6.66</b>
<b>Average (Median)</b>	<b>\$4.18</b>
<b>Average (Mean)</b>	<b>\$4.13</b>
<b>Clearing Price:</b>	<b>\$4.35</b>

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**E. NAMES OF POTENTIAL BIDDERS IN AUCTION 37**

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 37, the Participating States are releasing the names of Potential Bidders in Auction 37. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 50 Potential Bidders is as follows:

Astoria Energy, LLC	KMC Thermo, LLC
BP Products North America Inc.	Koch Supply & Trading, LP
Brooklyn Navy Yard Cogen Partners, LP	Luminus Energy Partners Master Fund, Ltd.
Caithness Long Island, LLC	Macquarie Energy, LLC
Calpine Energy Services, LP	Mercuria Energy America, Inc.
Carbon Lighthouse Association	Morgan Stanley Capital Group, Inc.
Castleton Commodities Merchant Trading, LP	National Grid Gen. dba National Grid
Cayuga Operating Company, LLC	Nautilus Power, LLC
City of Dover	NextEra Energy Marketing, LLC
Consolidated Edison Comp. of NY, Inc.	NRG Power Marketing, LLC
CPV Maryland, LLC	Ocean State Power, LLC
Delaware City Refining Company, LLC	Old Dominion Electric Cooperative
Direct Energy Business Marketing, LLC	Power Authority of the State of New York
Dominion Energy Marketing, Inc.	PSEG Energy Resources & Trade, LLC
DRW Commodities, LLC	Public Service Company of New Hampshire
DTE Energy Trading, Inc.	RBC
Element Markets, LLC	Rhode Island State Energy Center, LP
Exelon Generation Company, LLC	Selkirk Cogen Partners, LP
GenOn Energy Management, LLC	Shell Energy North America (US), LP
Helix Ravenswood, LLC	Statkraft US, LLC
Indeck-Corinth Limited Partnership	Taunton Municipal Lighting Plant
Indeck-Yerkes Limited Partnership	Verso Corporation
J-Power USA Development Co., Ltd.	Village of Freeport
Kendall Green Energy, LLC	Vitol Inc.
Kleen Energy Systems, LLC	Wallingford Energy, LLC