

---

**RGGI Inc.**



**MARKET MONITOR REPORT  
FOR AUCTION 32**

**Prepared for:**

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

**Prepared By:**

**POTOMAC  
ECONOMICS**

June 3, 2016

---

This report was prepared by Potomac Economics (the contractor) in the course of performing work contracted for and sponsored by RGGI, Inc. on behalf of states participating in RGGI (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont). The opinions expressed in this report do not necessarily reflect those of RGGI, Inc. or any of the states participating in RGGI, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, RGGI, Inc., the states participating in RGGI, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. RGGI, Inc., the states participating in RGGI, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

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 32**

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 32, which was held on June 1, 2016.

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 CO<sub>2</sub> allowances. Bids were submitted to purchase 3.1 times the available supply of allowances, resulting in a clearing price of \$4.53 per ton. Compliance-Oriented Entities purchased 64 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 32 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.

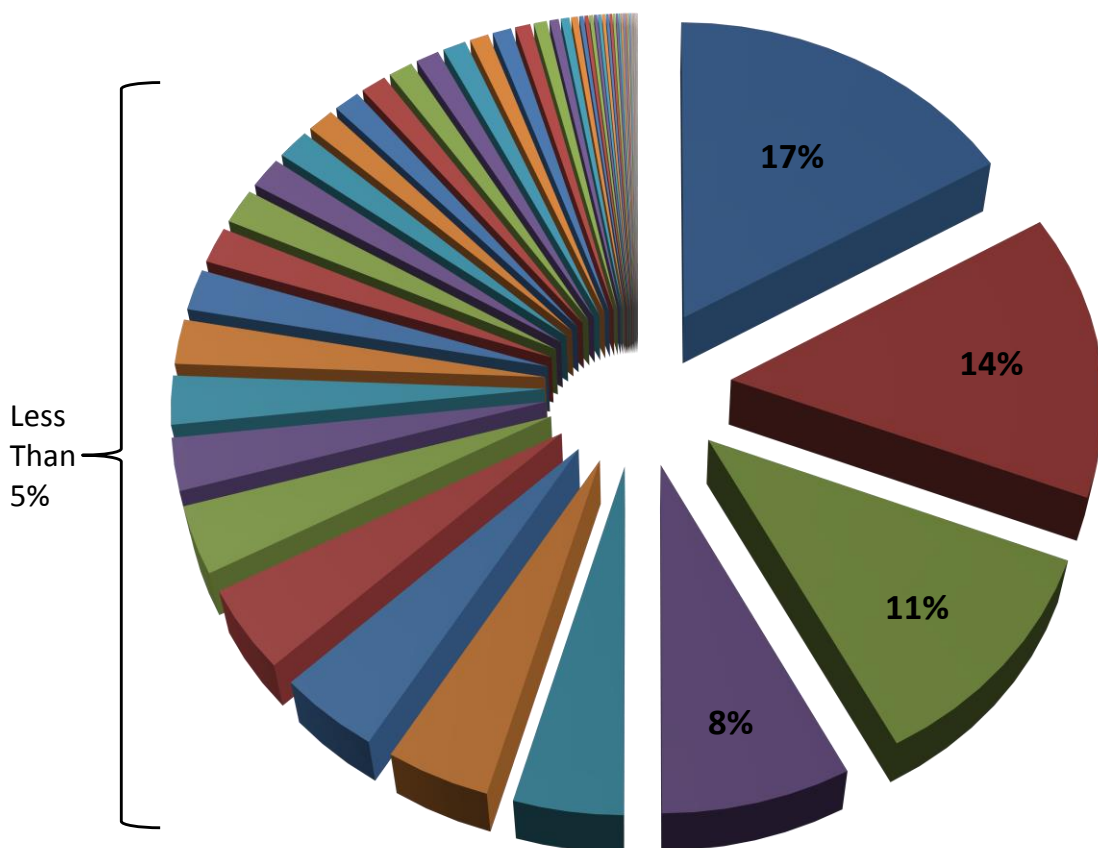
**APPENDIX**

**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. 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 32

*Awards were distributed across 32 bidders with four bidders purchasing one million tons or more and ten bidders purchasing 300,000 tons or more.*

This report summarizes participation for three categories: Compliance Entities and their Affiliates<sup>1</sup>; Compliance-Oriented Entities and Other Entities.

- *Compliance-Oriented Entities* – Includes compliance entities that appear to acquire and hold allowances primarily to satisfy their compliance obligations.
- *Other Entities* – Includes:
  - ✓ Firms without any compliance obligations, and
  - ✓ 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>

In Auction 32, Compliance Entities and their Affiliates purchased 93 percent of the allowances sold. In the first 32 RGGI auctions, Compliance Entities and their Affiliates purchased 77 percent of the allowances sold. In Auction 32, Compliance-Oriented Entities purchased 64 percent of the allowances sold.

After settlement of allowances sold in Auction 32:

- Forty-six percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Fifty-four 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 Other Entities for compliance purposes.

---

<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.

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>
<b>Bidder 1</b>	<b>3,762,000</b>
<b>Bidder 2</b>	<b>3,751,000</b>
<b>Bidder 3</b>	<b>1,750,000</b>
<b>Bidder 4</b>	<b>1,063,000</b>
<b>Bidder 5</b>	<b>850,000</b>
<b>Bidder 6</b>	<b>600,000</b>
<b>Bidder 7</b>	<b>500,000</b>
<b>Bidder 8</b>	<b>495,000</b>
<b>Bidder 9</b>	<b>400,000</b>
<b>Bidder 10</b>	<b>350,000</b>
<b>Bidder 11</b>	<b>275,000</b>
<b>Bidder 12</b>	<b>250,000</b>
<b>Bidder 13</b>	<b>231,000</b>
<b>Bidder 14</b>	<b>200,000</b>
<b>Bidder 15</b>	<b>151,000</b>
<b>Bidder 16</b>	<b>76,000</b>
<b>Bidder 17</b>	<b>75,000</b>
<b>Bidder 18</b>	<b>60,000</b>
<b>Bidder 19</b>	<b>50,000</b>
<b>Bidder 20</b>	<b>50,000</b>
<b>Bidder 21</b>	<b>28,652</b>
<b>Bidder 22</b>	<b>20,000</b>
<b>Bidder 23</b>	<b>18,000</b>
<b>Bidder 24</b>	<b>16,000</b>
<b>Bidder 25</b>	<b>10,000</b>
<b>Bidder 26</b>	<b>10,000</b>
<b>Bidder 27</b>	<b>10,000</b>
<b>Bidder 28</b>	<b>10,000</b>
<b>Bidder 29</b>	<b>10,000</b>
<b>Bidder 30</b>	<b>7,000</b>
<b>Bidder 31</b>	<b>6,000</b>
<b>Bidder 32</b>	<b>5,000</b>

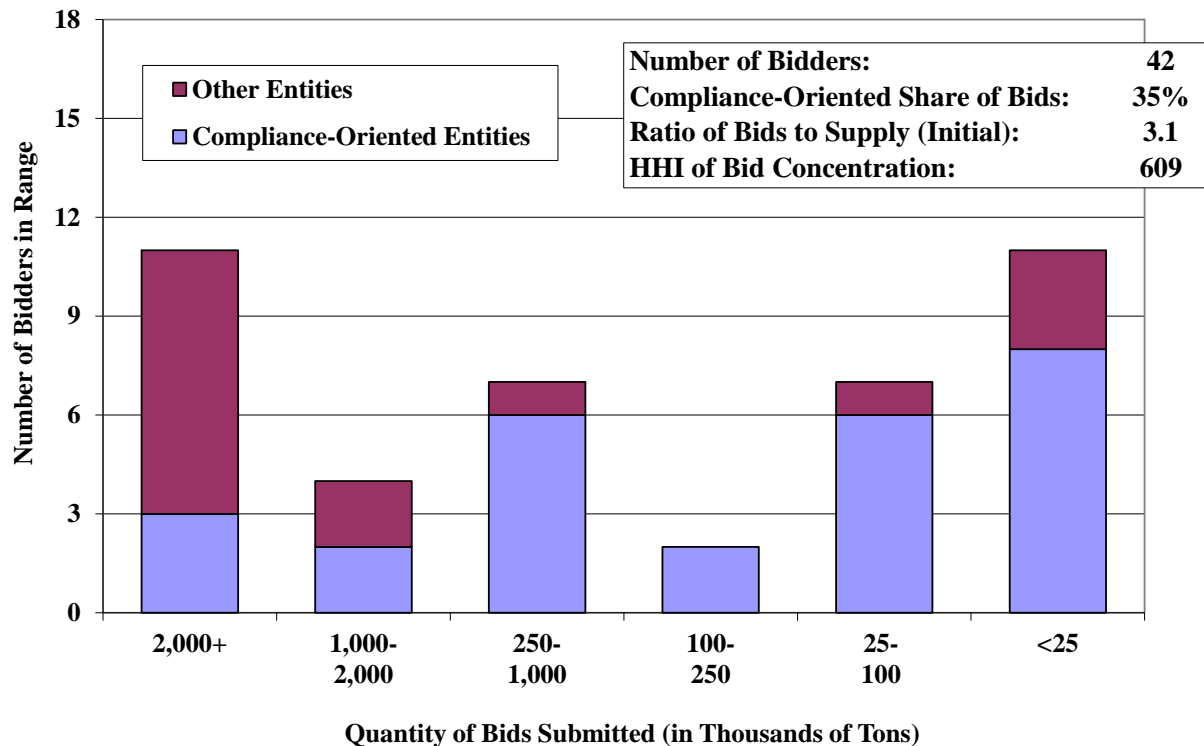
**C. DISPERSION OF BIDS IN AUCTION 32**

*Bids were submitted by 27 Compliance-Oriented Entities and 15 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. Three Compliance-Oriented Entities and eight Other Entities 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 3.1 times the available supply. In Auction 31, the quantity of allowances for which bids were submitted was 3.5 times the Initial Offering.

The bid quantities were widely distributed among the 42 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 609, 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 32**

*Bids were submitted across a wide range of prices in the auction and the clearing price of \$4.53 was relatively consistent with average bid prices submitted.*

The following table reports several statistics regarding the bid prices for bids submitted in Auction 32. The median and mean bid prices are weighted by the quantity of each bid.

---

<b>Bid Prices:</b>	
<b>Minimum</b>	<b>\$2.10</b>
<b>Maximum</b>	<b>\$12.65</b>
<b>Average (Median)</b>	<b>\$4.21</b>
<b>Average (Mean)</b>	<b>\$3.96</b>
<b>Clearing Price:</b>	<b>\$4.53</b>

---

**E. NAMES OF POTENTIAL BIDDERS IN AUCTION 32**

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 32, the Participating States are releasing the names of Potential Bidders in Auction 32. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid*.” The list of 56 Potential Bidders is as follows:

Berkshire Power Company, LLC	Jamestown Board of Public Utilities
Biourja Nehme Commodities, LLC	J-Power USA Development Co., Ltd.
BP Products North America Inc.	Kendall Green Energy, LLC
Brooklyn Navy Yard Cogen Partners, LP	Kleen Energy Systems, LLC
Caithness Long Island, LLC	KMC Thermo, LLC
Calpine Energy Services, LP	Koch Supply & Trading, LP
Carbon Lighthouse Association	Luminus Energy Partners Master Fund, Ltd.
Castleton Commodities Merchant Trading, LP	Macquarie Energy, LLC
Castleton Power, LLC	Maxim Power (USA), Inc.
CE2 Carbon Capital, LLC	Mercuria Energy America, Inc.
City of Dover	Morgan Stanley Capital Group, Inc.
Consolidated Edison Comp. of NY, Inc.	National Grid Gen. dba National Grid
Delaware City Refining Company, LLC	NextEra Energy Power Marketing, LLC
Delaware Municipal Electric Corp.	NRG Power Marketing, LLC
Dominion Energy Marketing, Inc.	Old Dominion Electric Cooperative
DRW Commodities, LLC	Power Authority of the State of New York
DTE Energy Trading, Inc.	PSEG Energy Resources & Trade, LLC
EDF Trading North America, LLC	Public Service Company of New Hampshire
Energie Row, LLC	RBC
Essential Power, LLC	Selkirk Cogen Partners, LP
Exelon Generation Company, LLC	Talen Energy Marketing, LLC
GDF SUEZ Energy Marketing NA, Inc.	Taunton Municipal Lighting Plant
GenOn Energy Management, LLC	The William & Flora Hewlett Foundation
Green Mountain Power Corporation	TransCanada Power Marketing, Ltd.
Green Olive Holdings, LLC	Upstate New York Power Producers, LLC
Indeck-Corinth Limited Partnership	Verso Corporation
Indeck-Oswego Limited Partnership	Village of Freeport
Indeck-Yerkes Limited Partnership	Vitol Inc.