
RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 33**

Prepared for:

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

Prepared By:

**POTOMAC
ECONOMICS**

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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 33

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 EnerNOC, Inc. This report summarizes our findings regarding RGGI Auction 33, which was held on September 7, 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-one bidders participated in the offering of CO₂ allowances. Bids were submitted to purchase 2.8 times the available supply of allowances, resulting in a clearing price of \$4.54 per ton. Compliance-Oriented Entities purchased 42 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 33 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 CO₂ allowances and outcomes of the auction.

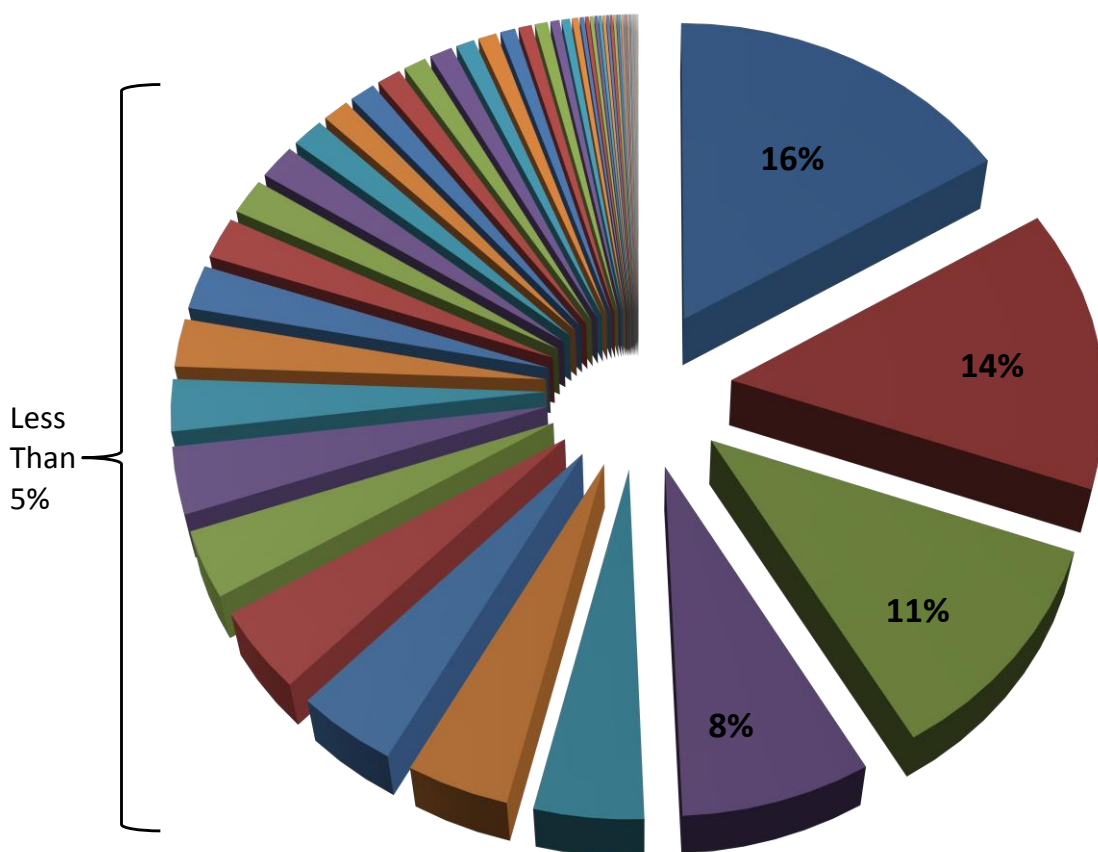
APPENDIX

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. 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 33

Awards were distributed across 33 bidders with six bidders purchasing one million tons or more and 15 bidders purchasing 300,000 tons or more.

This report summarizes participation for three categories: Compliance Entities and their Affiliates¹; 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.²

In Auction 33, Compliance Entities and their Affiliates purchased 61 percent of the allowances sold. In the first 33 RGGI auctions, Compliance Entities and their Affiliates purchased 77 percent of the allowances sold. In Auction 33, Compliance-Oriented Entities purchased 42 percent of the allowances sold.

After settlement of allowances sold in Auction 33:

- Fifty-two percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Fifty-eight 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.

¹ 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.

² 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

Bidder	Number of Allowances Awarded
Bidder 1	2,801,000
Bidder 2	1,964,315
Bidder 3	1,513,000
Bidder 4	1,500,000
Bidder 5	1,000,000
Bidder 6	1,000,000
Bidder 7	675,000
Bidder 8	500,000
Bidder 9	493,000
Bidder 10	461,000
Bidder 11	450,000
Bidder 12	350,000
Bidder 13	350,000
Bidder 14	350,000
Bidder 15	320,000
Bidder 16	250,000
Bidder 17	210,000
Bidder 18	160,000
Bidder 19	103,000
Bidder 20	70,000
Bidder 21	70,000
Bidder 22	62,000
Bidder 23	50,000
Bidder 24	50,000
Bidder 25	50,000
Bidder 26	46,000
Bidder 27	17,000
Bidder 28	14,000
Bidder 29	10,000
Bidder 30	10,000
Bidder 31	6,000
Bidder 32	4,000
Bidder 33	2,000

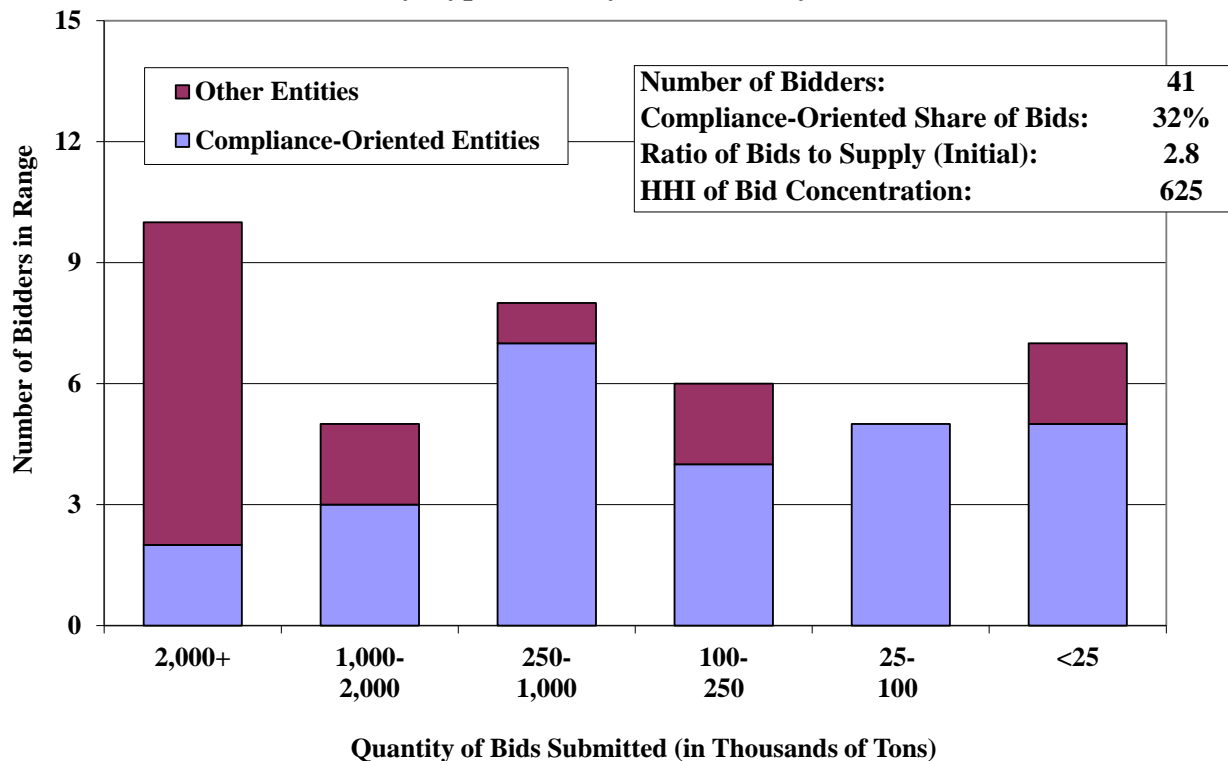
C. DISPERSION OF BIDS IN AUCTION 33

Bids were submitted by 26 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. Two 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 32 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.8 times the available supply. In Auction 32, the quantity of allowances for which bids were submitted was 3.1 times the Initial Offering.

The bid quantities were widely distributed among the 41 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 625, 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 33

Bids were submitted across a wide range of prices in the auction and the clearing price of \$4.54 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 33. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.10
Maximum	\$12.65
Average (Median)	\$4.30
Average (Mean)	\$4.10
Clearing Price:	\$4.54

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 33

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 33, the Participating States are releasing the names of Potential Bidders in Auction 33. 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	J-Power USA Development Co., Ltd.
Biourja Nehme Commodities, LLC	Kendall Green Energy, LLC
BP Products North America Inc.	KMC Thermo, LLC
Brooklyn Navy Yard Cogen Partners, LP	Koch Supply & Trading, LP
Caithness Long Island, LLC	Luminus Energy Partners Master Fund, Ltd.
Calpine Energy Services, LP	Macquarie Energy, LLC
Carbon Lighthouse Association	Maxim Power (USA), Inc.
Castleton Commodities Merchant Trading, LP	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
Dominion Energy Marketing, Inc.	NRG Power Marketing, LLC
DRW Commodities, LLC	Old Dominion Electric Cooperative
DTE Energy Trading, Inc.	Power Authority of the State of New York
Energie Row, LLC	PSEG Energy Resources & Trade, LLC
Exelon Generation Company, LLC	Public Service Company of New Hampshire
GDF SUEZ Energy Marketing NA, Inc.	RBC
GenOn Energy Management, LLC	Rhode Island State Energy Center, LP
Green Olive Holdings, LLC	Selkirk Cogen Partners, LP
Hawkeye Energy Greenport	Statkraft Markets GmbH
Indeck-Corinth Limited Partnership	Taunton Municipal Lighting Plant
Indeck-Olean Limited Partnership	Verso Corporation
Indeck-Oswego Limited Partnership	Village of Freeport
Indeck-Yerkes Limited Partnership	Vitol Inc.
Jamestown Board of Public Utilities	Wallingford Energy, LLC