
RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 38**

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 38

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 38, which was held on December 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.

Thirty-five bidders participated in the offering of CO₂ allowances. Bids were submitted to purchase 2.2 times the available supply of allowances, resulting in a clearing price of \$3.80 per ton. Compliance-Oriented Entities purchased 55 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 38 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.

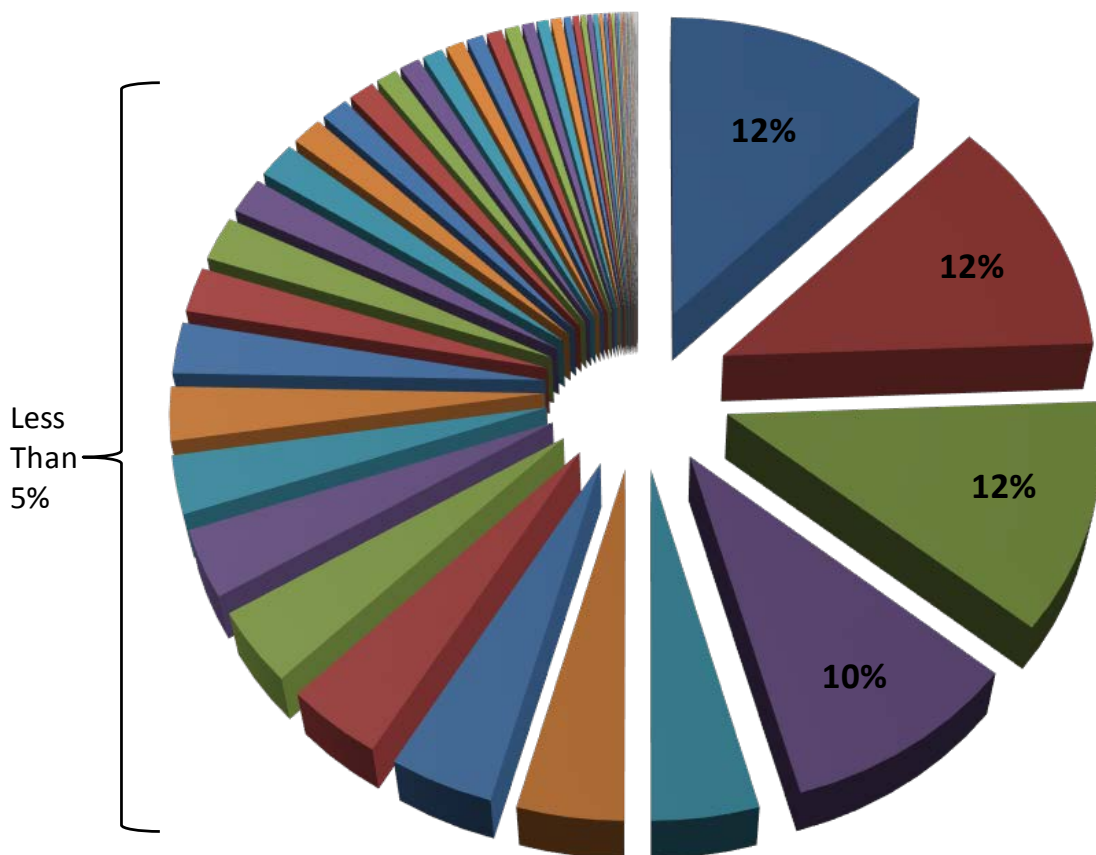
APPENDIX

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 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

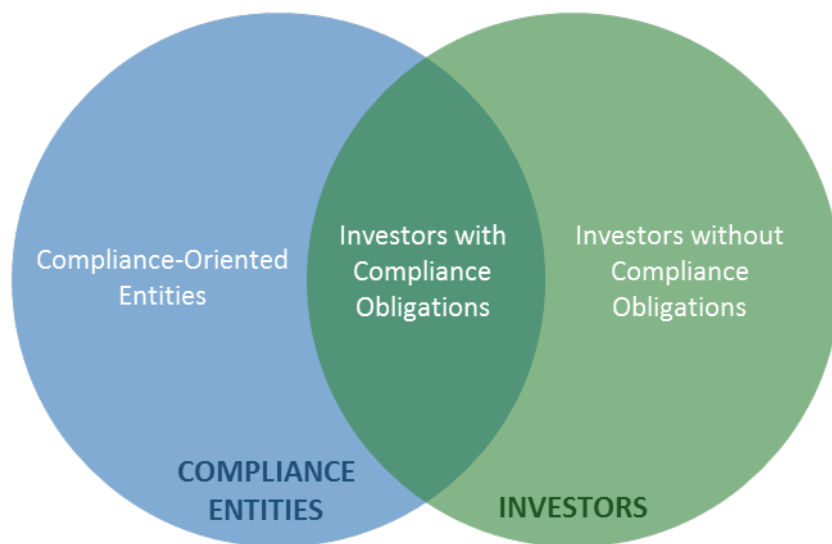


B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 38

Awards were distributed across 32 bidders with six bidders purchasing one million tons or more and 12 bidders purchasing 300,000 tons or more.

This report summarizes participation in Auction 38. Participation in the RGGI market involves many different firms with various interests in RGGI allowances. Some participate in order to satisfy compliance obligations, others have investment interests, and still others participate for both purposes. To more effectively track the activity of different participants, we use several classifications for participant firms. Figure 1 summarizes the relationship between these classifications.

Figure 2: Classifications of Participant Firms in the RGGI Marketplace



- *Compliance-Oriented Entities* are compliance entities that appear to acquire and hold allowances primarily to satisfy their compliance obligations.
- *Investors with Compliance Obligations* are 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.¹

¹ 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

- *Investors without Compliance Obligations* are 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.² 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 38, Compliance Entities purchased 64 percent of the allowances sold. In the first 38 RGGI auctions, Compliance Entities purchased 75 percent of the allowances sold. In Auction 38, Compliance-Oriented Entities purchased 55 percent of the allowances sold.

After settlement of allowances sold in Auction 38:

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

over time as more information becomes available.

² 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.

Table 1: Quantity of Allowances Awarded by Bidder

Bidder	Number of Allowances Awarded
Bidder 1	3,000,000
Bidder 2	2,550,000
Bidder 3	1,500,000
Bidder 4	1,300,000
Bidder 5	1,250,000
Bidder 6	1,150,000
Bidder 7	525,000
Bidder 8	500,000
Bidder 9	410,000
Bidder 10	372,989
Bidder 11	332,000
Bidder 12	300,000
Bidder 13	250,000
Bidder 14	200,000
Bidder 15	200,000
Bidder 16	130,000
Bidder 17	125,000
Bidder 18	120,000
Bidder 19	115,000
Bidder 20	55,000
Bidder 21	50,000
Bidder 22	50,000
Bidder 23	40,000
Bidder 24	39,000
Bidder 25	35,000
Bidder 26	25,000
Bidder 27	25,000
Bidder 28	20,000
Bidder 29	8,000
Bidder 30	5,000
Bidder 31	5,000
Bidder 32	1,000

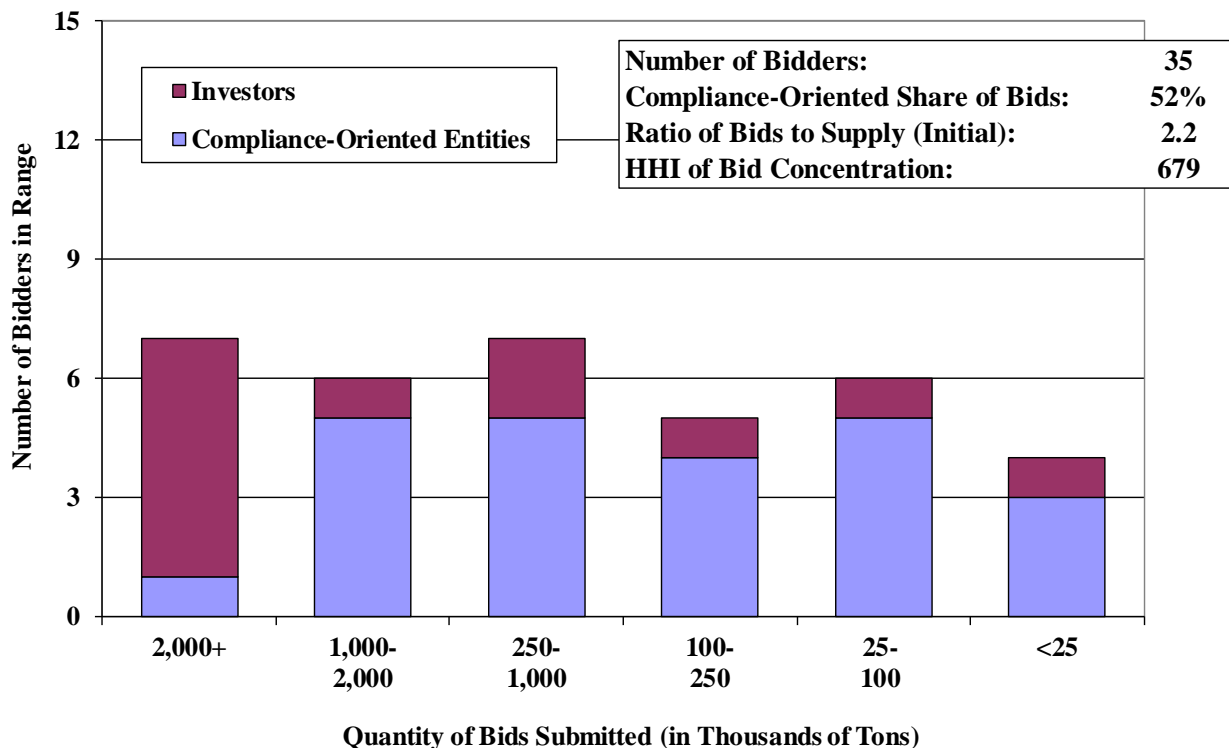
C. DISPERSION OF BIDS IN AUCTION 38

Bids were submitted by 23 Compliance-Oriented Entities and 12 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 52 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.2 times the available supply. In Auction 37, the quantity of allowances for which bids were submitted was 2.7 times the Initial Offering.

The bid quantities were widely distributed among the 35 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 679, 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 3: Quantity of Bids Submitted by Entity
By Type of Entity and Quantity Bid**



D. SUMMARY OF BID PRICES IN AUCTION 38

Bids were submitted across a wide range of prices in the auction and the clearing price of \$3.80 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 38. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.15
Maximum	\$8.00
Average (Median)	\$3.75
Average (Mean)	\$3.63
Clearing Price:	\$3.80

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 38

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 38, the Participating States are releasing the names of Potential Bidders in Auction 38. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 45 Potential Bidders is as follows:

Astoria Energy, LLC	Luminus Energy Partners Master Fund, Ltd.
BP Products North America Inc.	Macquarie Energy, LLC
Burlington Electric Department	Massachusetts Muni. Wholesale Elec. Co.
Caithness Long Island, LLC	Mercuria Energy America, Inc.
Calpine Energy Services, LP	Morgan Stanley Capital Group, Inc.
Carbon Lighthouse Association	National Grid Gen. dba National Grid
Cayuga Operating Company, LLC	New Mach Gen, LLC
Consolidated Edison Comp. of NY, Inc.	NextEra Energy Marketing, LLC
CPV Maryland, LLC	NRG Power Marketing, LLC
CPV Towantic, LLC	Ocean State Power, LLC
Delaware City Refining Company, LLC	Old Dominion Electric Cooperative
Dominion Energy Marketing, Inc.	Power Authority of the State of New York
DTE Energy Trading, Inc.	PSEG Energy Resources & Trade, LLC
Element Markets, LLC	Public Service Company of New Hampshire
Exelon Generation Company, LLC	RBC
GenOn Energy Management, LLC	Selkirk Cogen Partners, LP
Hawkeye Energy Greenport	Shell Energy North America (US), LP
Helix Ravenswood, LLC	Statkraft US, LLC
Indeck-Corinth Limited Partnership	Verso Corporation
Jamestown Board of Public Utilities	Village of Freeport
Kendall Green Energy, LLC	Vitol Inc.
KMC Thermo, LLC	Wallingford Energy, LLC
Koch Supply & Trading, LP	