
RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 52**

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 Eastern 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 52

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 allowance auctions by Enel X. This report summarizes our findings regarding RGGI Auction 52, which was held on June 2, 2021.

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.

Sixty-five bidders participated in the offering of CO₂ allowances. Bids were submitted to purchase 2.3 times the available supply of allowances, resulting in a clearing price of \$7.97 per ton. Compliance-Oriented Entities purchased 56 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 52 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.

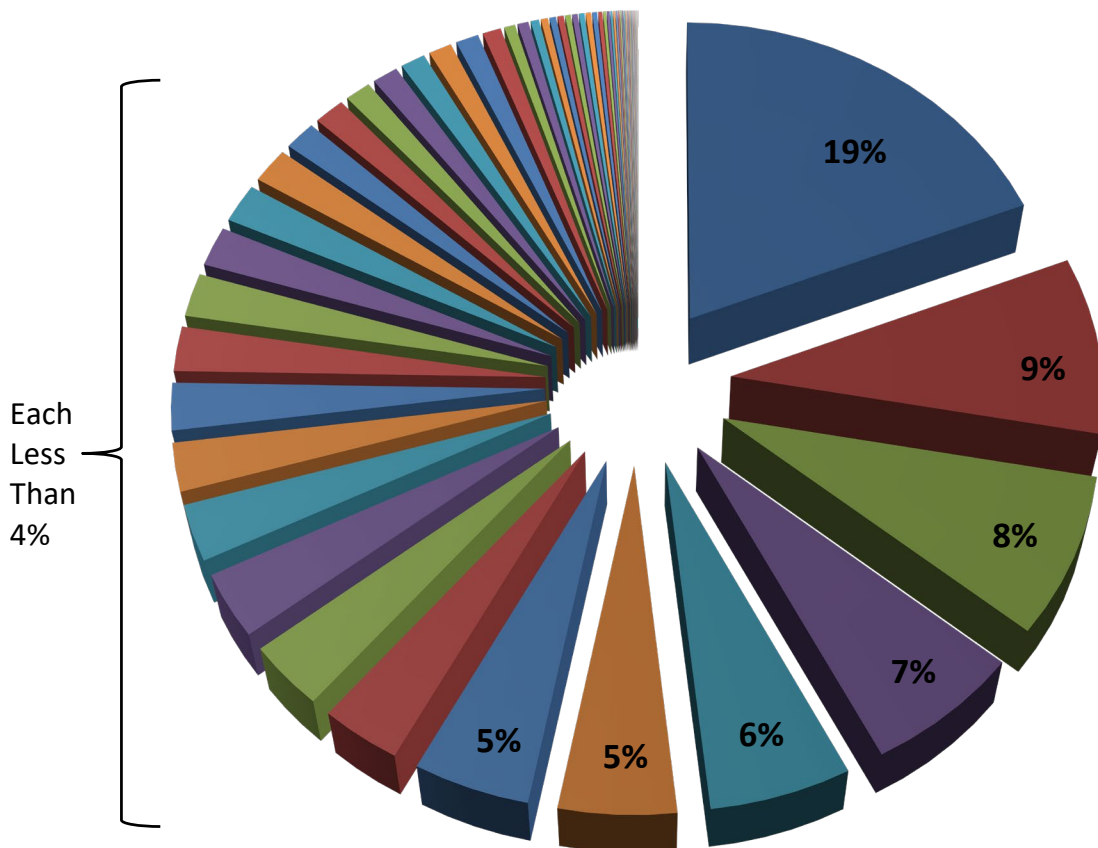
APPENDIX

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 demand for CO₂ allowances is based on the requirement for each compliance entity in the RGGI footprint to obtain one CO₂ allowance for each short ton of CO₂ that it emits from the sale of electricity. The following figure shows the relative shares of projected demand for RGGI allowances by compliance entity in the fifth control period. The largest compliance entity represents 19 percent of the total projected demand for allowances. Approximately 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

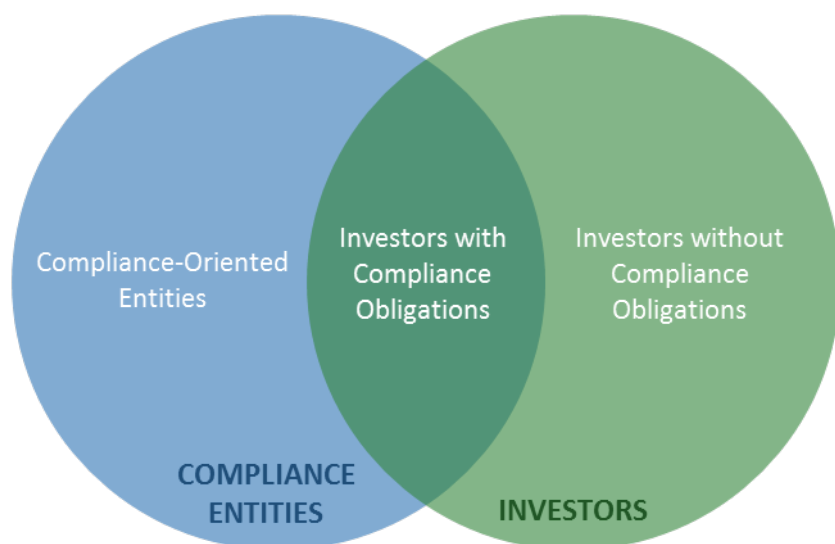


B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 52

Awards were distributed across 62 bidders with five bidders purchasing one million allowances or more and 29 bidders purchasing 200,000 allowances or more.

This report summarizes participation in Auction 52. 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 2 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 2026, (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.

- *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 52, Compliance Entities purchased 65 percent of the allowances sold. In the first 52 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 52, Compliance-Oriented Entities purchased 56 percent of the allowances sold.

After settlement of allowances sold in Auction 52:

- Thirty-six percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Forty-three 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.

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	Number of Allowances
Bidder 1	4,125,000	Bidder 32	126,000
Bidder 2	2,000,000	Bidder 33	100,000
Bidder 3	1,570,000	Bidder 34	50,000
Bidder 4	1,400,000	Bidder 35	50,000
Bidder 5	1,200,000	Bidder 36	42,000
Bidder 6	950,000	Bidder 37	31,000
Bidder 7	750,000	Bidder 38	30,000
Bidder 8	750,000	Bidder 39	30,000
Bidder 9	710,000	Bidder 40	26,000
Bidder 10	693,000	Bidder 41	25,000
Bidder 11	600,000	Bidder 42	25,000
Bidder 12	572,000	Bidder 43	25,000
Bidder 13	550,000	Bidder 44	25,000
Bidder 14	550,000	Bidder 45	15,000
Bidder 15	535,000	Bidder 46	15,000
Bidder 16	510,000	Bidder 47	10,000
Bidder 17	500,000	Bidder 48	10,000
Bidder 18	460,719	Bidder 49	10,000
Bidder 19	400,000	Bidder 50	10,000
Bidder 20	400,000	Bidder 51	10,000
Bidder 21	375,000	Bidder 52	8,000
Bidder 22	375,000	Bidder 53	8,000
Bidder 23	357,000	Bidder 54	7,000
Bidder 24	300,000	Bidder 55	6,000
Bidder 25	300,000	Bidder 56	5,000
Bidder 26	297,000	Bidder 57	4,000
Bidder 27	250,000	Bidder 58	3,000
Bidder 28	250,000	Bidder 59	3,000
Bidder 29	200,000	Bidder 60	1,000
Bidder 30	190,000	Bidder 61	1,000
Bidder 31	156,000	Bidder 62	1,000

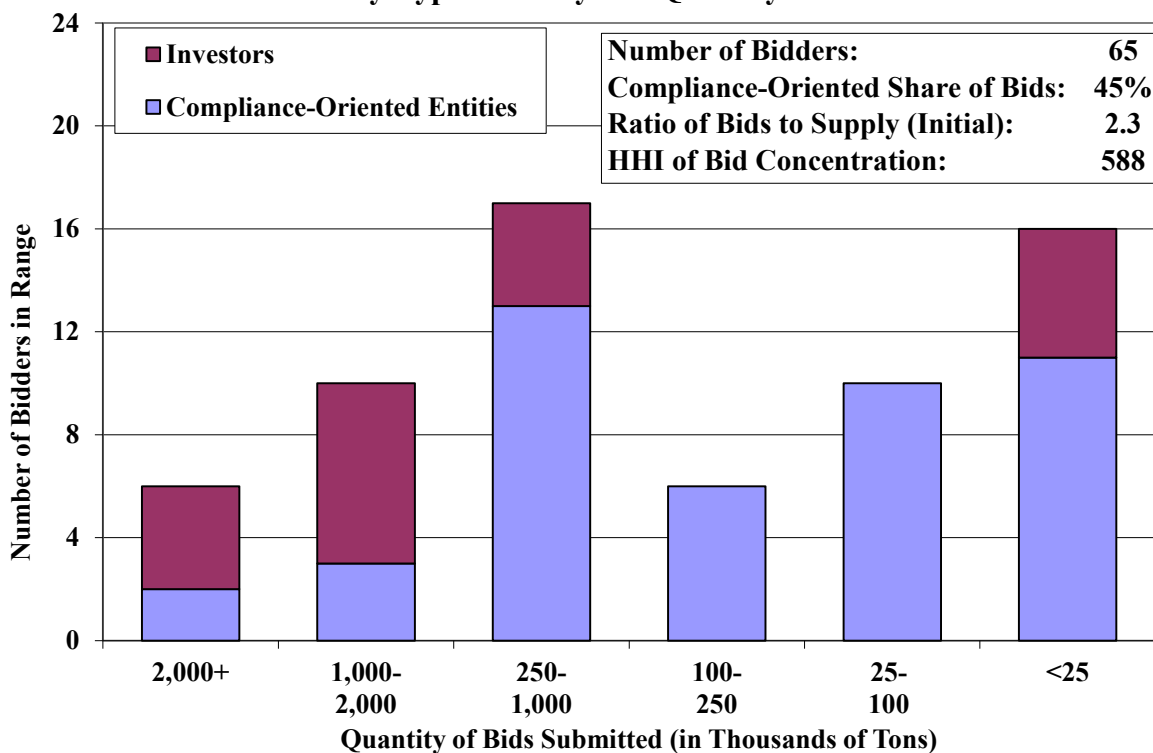
C. DISPERSION OF BIDS IN AUCTION 52

Bids were submitted by 45 Compliance-Oriented Entities and 20 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. Five Compliance-Oriented Entities and eleven Investors submitted bids for a large quantity of allowances (i.e., at least 1 million allowances). Overall, Compliance-Oriented Entities accounted for 45 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.3 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 1.4 times the Initial Offering.

The bid quantities were widely distributed among the 65 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), was relatively low at 588. The HHI is a standard measure of concentration calculated by squaring each entity’s percent 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 52

Bids were submitted across a wide range of prices in the auction and the clearing price of \$7.97 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 52. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.38
Maximum	\$12.51
Average (Median)	\$7.89
Average (Mean)	\$7.72
Clearing Price:	\$7.97

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 52

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 52, the Participating States are releasing the names of Potential Bidders in Auction 52. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 75 Potential Bidders is as follows:

A2E Solutions LLC	Indeck-Oswego Limited Partnership
Air to Earth LLC	Indeck-Yerkes Limited Partnership
Appalachian Power Company	Jamestown Board of Public Utilities
Astoria Energy, LLC	Kcarbon Holdings LLC
Birchwood Power Partners, L.P	Kendall Green Energy LLC
Blue Delta Energy, LLC	Kleen Energy Systems, LLC
BP Products North America Inc.	KMC Thermo, LLC
Buchanan Generation	Koch Supply & Trading, LP
Caithness Long Island, LLC	Liquidity Energy
Calpine Energy Services, LP	Luminus Capital Partners Master Fund LP
Carbon Lighthouse Association	Macquarie Energy, LLC
Carbon Market Exchange	Manchester Street, L.L.C.
Castleton Commodities Merchant Trading, LP	Mercuria Energy America, LLC
City of Vineland	Morgan Stanley Capital Group, Inc.
Consolidated Edison Comp. of NY, Inc.	National Grid Generation LLC dba National Grid
Cooler, Inc.	Nautilus Power, LLC
CPV Maryland, LLC	Newark Energy Center
CPV Shore, LLC	NextEra Energy Marketing, LLC
CPV Towantic, LLC	Old Dominion Electric Cooperative
CPV Valley, LLC	Pinelawn Power, LLC
Cricket Valley Energy Center, LLC	Pixelle Androscoggin LLC
Delaware City Refining Company, LLC	Power Authority of the State of New York
Delaware Municipal Electric Corp.	RBC
Dighton Power, LLC	Revere Power, LLC
DTE Energy Trading, Inc.	Rhode Island State Energy Center, LP
Dynegy Marketing and Trade, LLC	Selkirk Cogen Partners, LP
ECP Capital LP	Shell Energy North America (US), LP
Edgewood Energy, LLC	Shoreham Energy, LLC
Empire Generating Co., LLC	Statkraft US, LLC
Energy Center Dover	Taunton Municipal Lighting Plant
Equus Power I, LP	Tenaska Power Services Co.
Exelon Generation Company, LLC	Tenaska, Inc.
Footprint Power Salem Harbor Development LP	Trafigura Trading LLC
Gen IV Investment Opportunities, LLC	Village of Freeport
Hawkeye Energy Greenport	Virginia Electric and Power Company
Indeck Energy Serv. of Silver Springs	Vitol Inc.
Indeck-Corinth Limited Partnership	Wallingford Energy, LLC
Indeck-Olean Limited Partnership	