
RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 54**

Prepared for:

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

Prepared By:

**POTOMAC
ECONOMICS**

December 3, 2021

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 Jersey, New York, Rhode Island, Vermont, and Virginia). 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 initiative in the U.S. to reduce greenhouse gas emissions. RGGI is a cooperative effort of New England 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 54

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 54, which was held on December 1, 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-seven bidders participated in the auction for CO₂ allowances. Bids were submitted to purchase 2.5 times the initial offering of approximately 23.1 million allowances. However, the quantity for which bids were submitted above \$13.00 per ton exceeded the initial offering, so the Cost Containment Reserve (“CRR”) was made available at the CCR Trigger Price of \$13.00 per ton. Over 3.9 million additional allowances were sold, resulting in partial depletion of the CCR for 2021 and a clearing price of \$13.00 per ton in the auction. Compliance-Oriented Entities purchased 67 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 54 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.

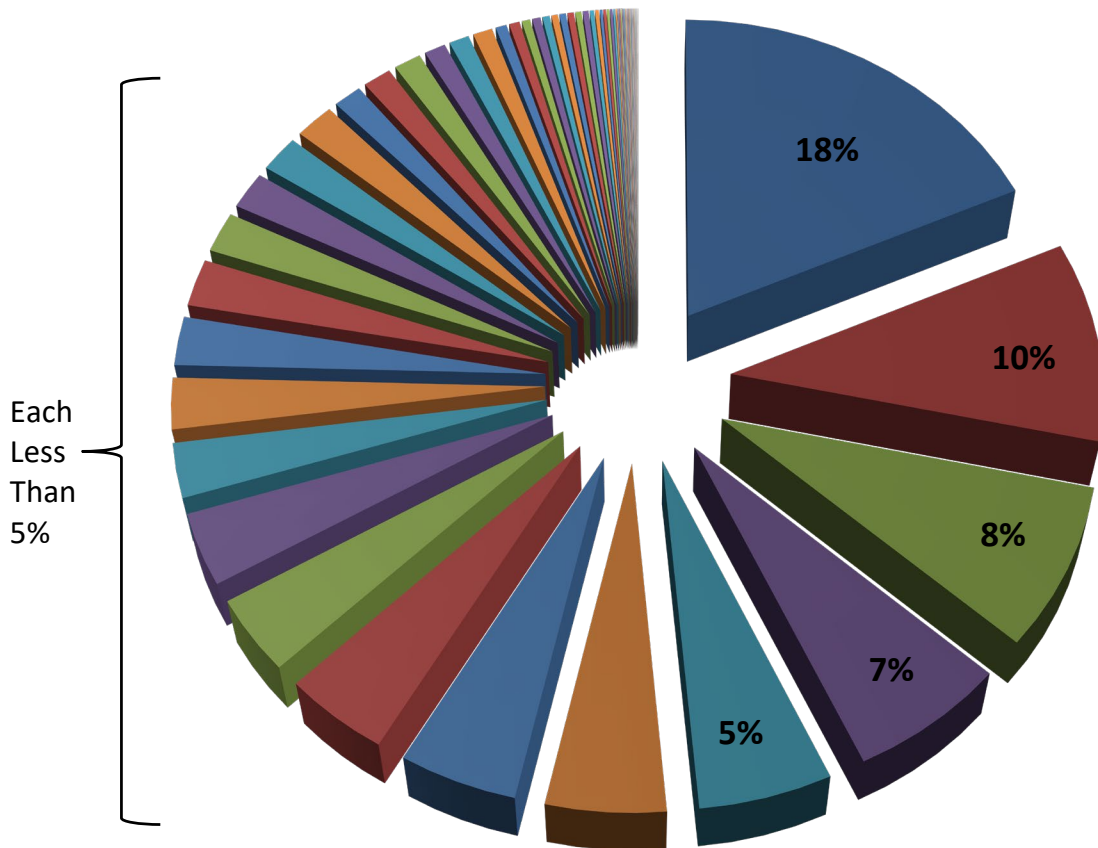
APPENDIX

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 18 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

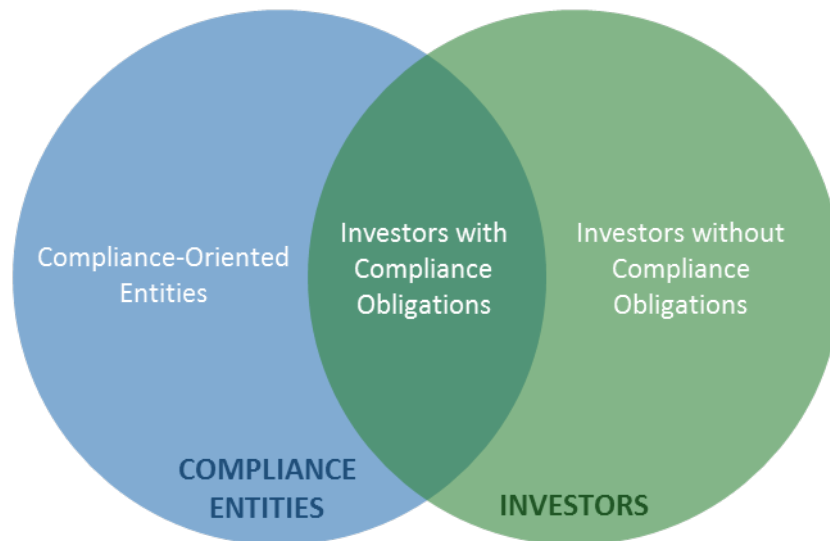


B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 54

Awards were distributed across 53 bidders with five bidders purchasing one million tons or more and 28 bidders purchasing 200,000 tons or more.

This report summarizes participation in Auction 54. 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 54, Compliance Entities purchased 68 percent of the allowances sold. In the first 54 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 54, Compliance-Oriented Entities purchased 67 percent of the allowances sold.

After settlement of allowances sold in Auction 54:

- Forty-five percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Fifty 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	5,780,000	Bidder 35	88,000
Bidder 2	4,869,000	Bidder 36	85,000
Bidder 3	3,450,000	Bidder 37	75,000
Bidder 4	1,212,000	Bidder 38	75,000
Bidder 5	1,120,000	Bidder 39	69,000
Bidder 6	764,000	Bidder 40	61,000
Bidder 7	750,000	Bidder 41	33,000
Bidder 8	750,000	Bidder 42	32,000
Bidder 9	720,000	Bidder 43	31,000
Bidder 10	613,000	Bidder 44	28,000
Bidder 11	595,000	Bidder 45	25,000
Bidder 12	500,000	Bidder 46	25,000
Bidder 13	397,000	Bidder 47	20,000
Bidder 14	360,000	Bidder 48	19,000
Bidder 15	322,000	Bidder 49	15,000
Bidder 16	322,000	Bidder 50	14,000
Bidder 17	300,000	Bidder 51	13,000
Bidder 18	300,000	Bidder 52	10,000
Bidder 19	300,000	Bidder 53	10,000
Bidder 20	275,000	Bidder 54	0
Bidder 21	270,000	Bidder 55	0
Bidder 22	250,000	Bidder 56	0
Bidder 23	250,000	Bidder 57	0
Bidder 24	250,000	Bidder 58	0
Bidder 25	200,000	Bidder 59	0
Bidder 26	200,000	Bidder 60	0
Bidder 27	200,000	Bidder 61	0
Bidder 28	200,000	Bidder 62	0
Bidder 29	160,000	Bidder 63	0
Bidder 30	160,000	Bidder 64	0
Bidder 31	150,000	Bidder 65	0
Bidder 32	128,000	Bidder 66	0
Bidder 33	100,000	Bidder 67	0
Bidder 34	96,000		

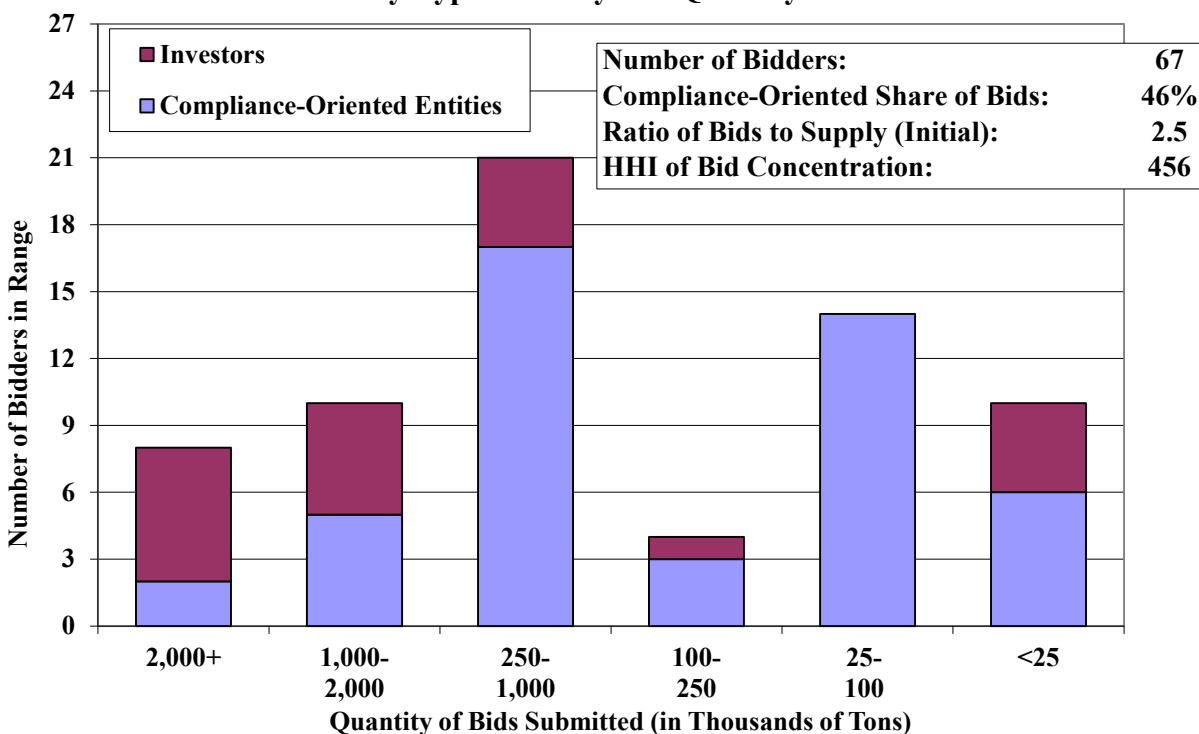
C. DISPERSION OF BIDS IN AUCTION 54

Bids were submitted by 47 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. Seven Compliance-Oriented Entities and eleven Investors submitted bids for a large quantity of allowances (i.e., at least 1 million tons). Overall, Compliance-Oriented Entities accounted for 46 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.5 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 2.4 times the Initial Offering.

The bid quantities were widely distributed among the 67 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), was relatively low at 456. 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 54

Bids were submitted across a wide range of prices in the auction and the clearing price of \$13.00 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 54. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.38
Maximum	\$17.00
Average (Median)	\$12.91
Average (Mean)	\$12.47
Clearing Price:	\$13.00

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 54

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 54, the Participating States are releasing the names of Potential Bidders in Auction 54. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 79 Potential Bidders is as follows:

A2E Solutions LLC	Indeck-Olean Limited Partnership
Air to Earth LLC	Jamestown Board of Public Utilities
Appalachian Power Company	Kcarbon Holdings LLC
Astoria Energy, LLC	Kendall Green Energy LLC
Bellus Ventures III LP	Kleen Energy Systems, LLC
Birchwood Power Partners, L.P	KMC Thermo, LLC
BP Products North America Inc.	Koch Supply & Trading, LP
Braintree Electric Light Department	Liquidity Energy
Buchanan Generation	Macquarie Energy, LLC
Caithness Long Island, LLC	Manchester Street, L.L.C.
Calpine Energy Services, LP	Massachusetts Muni. Wholesale Elec. Co.
Carbon Lighthouse Association	Mercuria Energy America, LLC
Carbon Market Exchange	Morgan Stanley Capital Group, Inc.
City of Vineland	MV Global Carbon Fund LP
Clay Hills Management Ltd.	National Grid Generation LLC dba National Grid
Clear Sky Enhanced Inflation Carbon Master Fund LP	Nautilus Power, LLC
Coloma Strategies LLC	New Athens Generating Company, LLC
Commonwealth Chesapeake Company, LLC	Newark Energy Center
Consolidated Edison Comp. of NY, Inc.	NextEra Energy Marketing, LLC
Cooler, Inc.	Ocean State Power, LLC
CPV Maryland, LLC	Old Dominion Electric Cooperative
CPV Shore, LLC	Pegasus Development Corporation
CPV Towantic, LLC	Pinelawn Power, LLC
CPV Valley, LLC	Pixelle Androscoggin LLC
Cricket Valley Energy Center, LLC	Power Authority of the State of New York
Delaware City Refining Company, LLC	PSEG Energy Resources & Trade LLC
Dighton Power, LLC	RBC
DTE Energy Trading, Inc.	Rhode Island State Energy Center, LP
Dynegy Marketing and Trade, LLC	Selkirk Cogen Partners, LP
Edgewood Energy, LLC	Shell Energy North America (US), LP
Elbow River Marketing LTD.	Shoreham Energy, LLC
Element Markets Emissions, LLC	Statkraft US, LLC
Empire Generating Co., LLC	Tenaska Power Services Co.
Energy Center Dover	Tenaska, Inc.
Equus Power I, LP	Trafigura Trading LLC
Exelon Generation Company, LLC	Village of Freeport
Footprint Power Salem Harbor Development LP	Virginia Electric and Power Company
Helix Ravenswood Energy, LLC	Vitol Inc.
Indeck Energy Serv. of Silver Springs	Wallingford Energy, LLC
Indeck-Corinth Limited Partnership	