
RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 53**

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 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 53

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 53, which was held on September 8, 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 2.4 times the available supply of allowances, resulting in a clearing price of \$9.30 per ton. Compliance-Oriented Entities purchased 50 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 53 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.

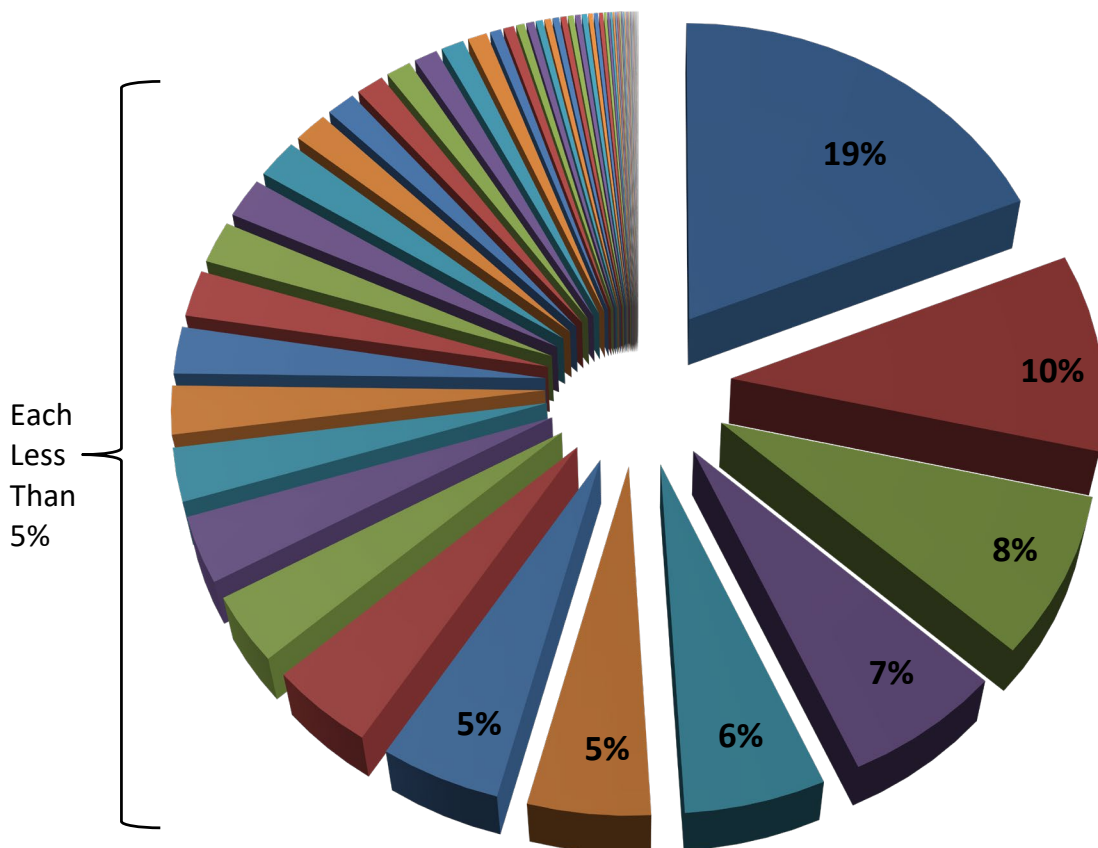
APPENDIX

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. Nearly 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

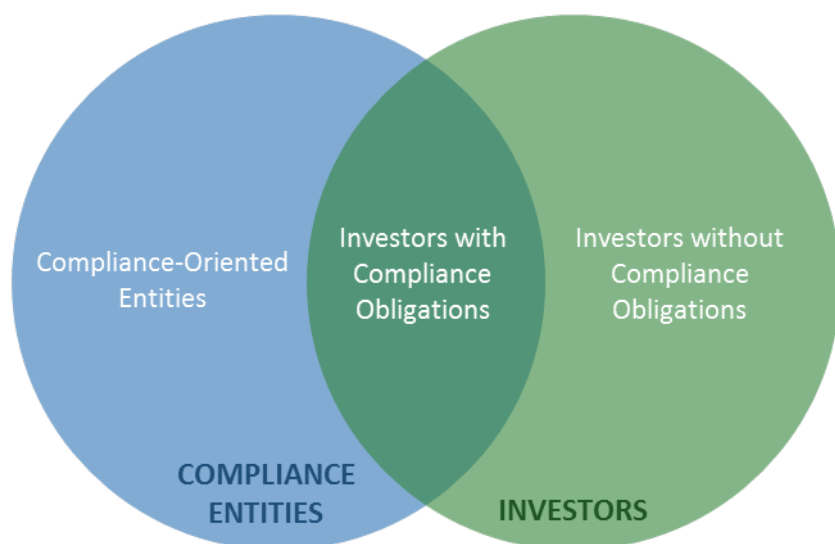


B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 53

Awards were distributed across 46 bidders with seven bidders purchasing one million tons or more and 27 bidders purchasing 200,000 tons or more.

This report summarizes participation in Auction 53. 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 53, Compliance Entities purchased 52 percent of the allowances sold. In the first 53 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 53, Compliance-Oriented Entities purchased 50 percent of the allowances sold.

After settlement of allowances sold in Auction 53:

- Forty percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Forty-six 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	3,750,000	Bidder 34	53,000
Bidder 2	2,150,000	Bidder 35	50,000
Bidder 3	2,000,000	Bidder 36	42,000
Bidder 4	1,913,000	Bidder 37	35,000
Bidder 5	1,600,000	Bidder 38	31,000
Bidder 6	1,226,000	Bidder 39	16,000
Bidder 7	1,000,000	Bidder 40	15,000
Bidder 8	844,000	Bidder 41	10,000
Bidder 9	750,000	Bidder 42	10,000
Bidder 10	520,000	Bidder 43	6,000
Bidder 11	517,000	Bidder 44	5,000
Bidder 12	500,000	Bidder 45	3,000
Bidder 13	500,000	Bidder 46	1,000
Bidder 14	497,423	Bidder 47	0
Bidder 15	430,000	Bidder 48	0
Bidder 16	400,000	Bidder 49	0
Bidder 17	400,000	Bidder 50	0
Bidder 18	400,000	Bidder 51	0
Bidder 19	372,000	Bidder 52	0
Bidder 20	315,000	Bidder 53	0
Bidder 21	315,000	Bidder 54	0
Bidder 22	305,000	Bidder 55	0
Bidder 23	270,000	Bidder 56	0
Bidder 24	258,000	Bidder 57	0
Bidder 25	225,000	Bidder 58	0
Bidder 26	200,000	Bidder 59	0
Bidder 27	200,000	Bidder 60	0
Bidder 28	180,000	Bidder 61	0
Bidder 29	156,000	Bidder 62	0
Bidder 30	140,000	Bidder 63	0
Bidder 31	105,000	Bidder 64	0
Bidder 32	100,000	Bidder 65	0
Bidder 33	96,000		

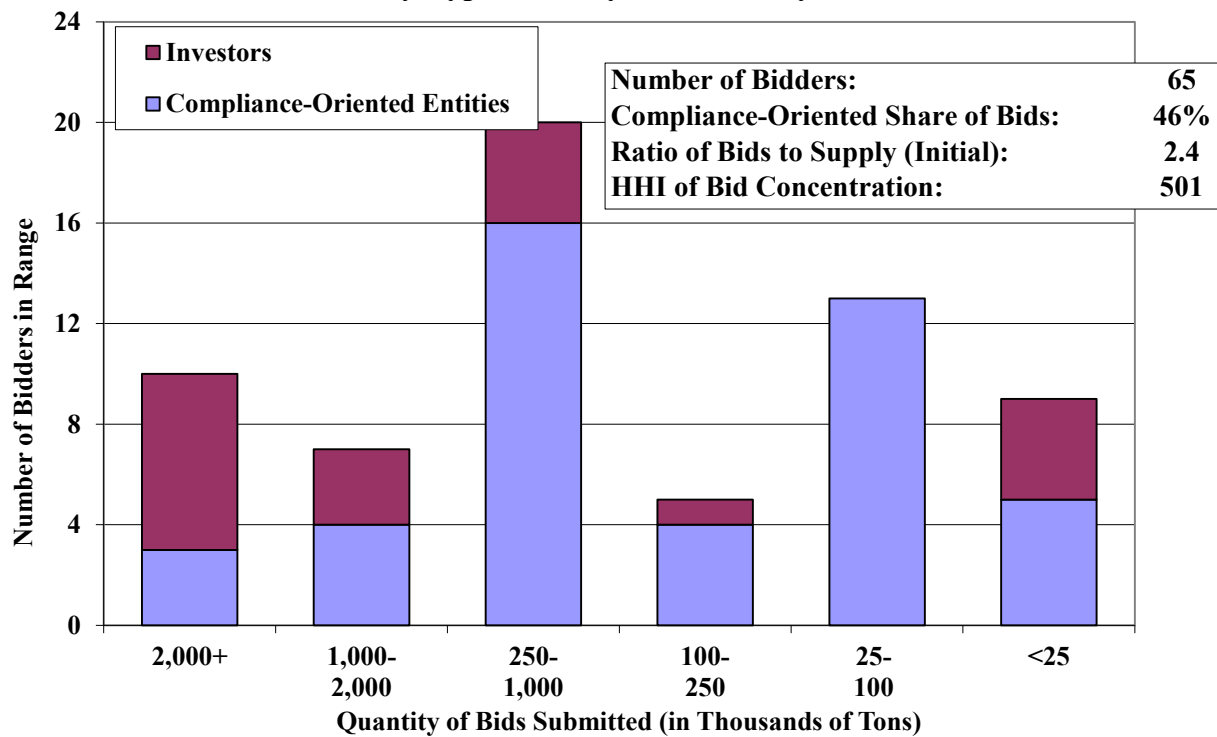
C. DISPERSION OF BIDS IN AUCTION 53

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. Seven Compliance-Oriented Entities and ten Investors submitted bids for a large quantity of allowances (i.e., at least 1 million). 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 2.4 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 2.3 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 501. 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 53

Bids were submitted across a wide range of prices in the auction and the clearing price of \$9.30 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 53. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.38
Maximum	\$12.51
Average (Median)	\$9.17
Average (Mean)	\$9.08
Clearing Price:	\$9.30

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 53

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 53, the Participating States are releasing the names of Potential Bidders in Auction 53. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 73 Potential Bidders is as follows:

A2E Solutions LLC	Kcarbon Holdings LLC
Air to Earth LLC	Kendall Green Energy LLC
Appalachian Power Company	Kleen Energy Systems, LLC
Astoria Energy, LLC	KMC Thermo, LLC
Bellus Ventures III LP	Koch Supply & Trading, LP
Birchwood Power Partners, L.P	Liquidity Energy
Blue Delta Energy, LLC	Macquarie Energy, LLC
BP Products North America Inc.	Manchester Street, L.L.C.
Buchanan Generation	Mercuria Energy America, LLC
Caithness Long Island, LLC	Morgan Stanley Capital Group, Inc.
Calpine Energy Services, LP	National Grid Generation LLC dba National Grid
Carbon Lighthouse Association	Nautilus Power, LLC
Carbon Market Exchange	Newark Energy Center
Castleton Commodities Merchant Trading, LP	NextEra Energy Marketing, LLC
City of Vineland	Old Dominion Electric Cooperative
Clear Sky Enhanced Inflation Carbon Master Fund LP	Panda Stonewall LLC
Consolidated Edison Comp. of NY, Inc.	Pinelawn Power, LLC
Cooler, Inc.	Pixelle Androscoggin LLC
CPV Maryland, LLC	Power Authority of the State of New York
CPV Shore, LLC	RBC
CPV Towantic, LLC	Revere Power, LLC
CPV Valley, LLC	Rhode Island State Energy Center, LP
Cricket Valley Energy Center, LLC	Robert Farrell
Delaware City Refining Company, LLC	Robert Fox
Delaware Municipal Electric Corp.	Selkirk Cogen Partners, LP
DTE Energy Trading, Inc.	Shell Energy North America (US), LP
Dynegy Marketing and Trade, LLC	Shoreham Energy, LLC
Edgewood Energy, LLC	Statkraft US, LLC
Elbow River Marketing LTD.	Taunton Municipal Lighting Plant
Element Markets Emissions, LLC	Tenaska Power Services Co.
Empire Generating Co., LLC	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
Hawkeye Energy Greenport	Vitol Inc.
Indeck-Corinth Limited Partnership	Wallingford Energy, LLC
Jamestown Board of Public Utilities	