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**RGGI Inc.**



**MARKET MONITOR REPORT  
FOR AUCTION 58**

**Prepared for:**

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

**Prepared By:**

**POTOMAC  
ECONOMICS**

December 9, 2022

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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, Pennsylvania,<sup>1</sup> 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 (CO<sub>2</sub>) 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.

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<sup>1</sup> While technically a RGGI participating state, Pennsylvania is currently under order from the state's Commonwealth Court prohibiting it from actively participating in RGGI & RGGI Inc. related activities. Final adjudication of these matters is not expected until sometime in 2023.

## **MARKET MONITOR REPORT FOR AUCTION 58**

As the Market Monitor for the RGGI CO<sub>2</sub> 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 58, which was held on December 7, 2022.

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 CO<sub>2</sub> allowances. Bids were submitted to purchase 2.4 times the initial offering of approximately 22.2 million allowances, resulting in a clearing price of \$12.99 per ton in the auction. The Cost Containment Reserve (“CRR”) Trigger Price is \$13.91 per ton for auctions held in 2022, so no CCR allowances were sold in the auction. Compliance-Oriented Entities purchased 66 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 58 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 CO<sub>2</sub> allowances and outcomes of the auction.

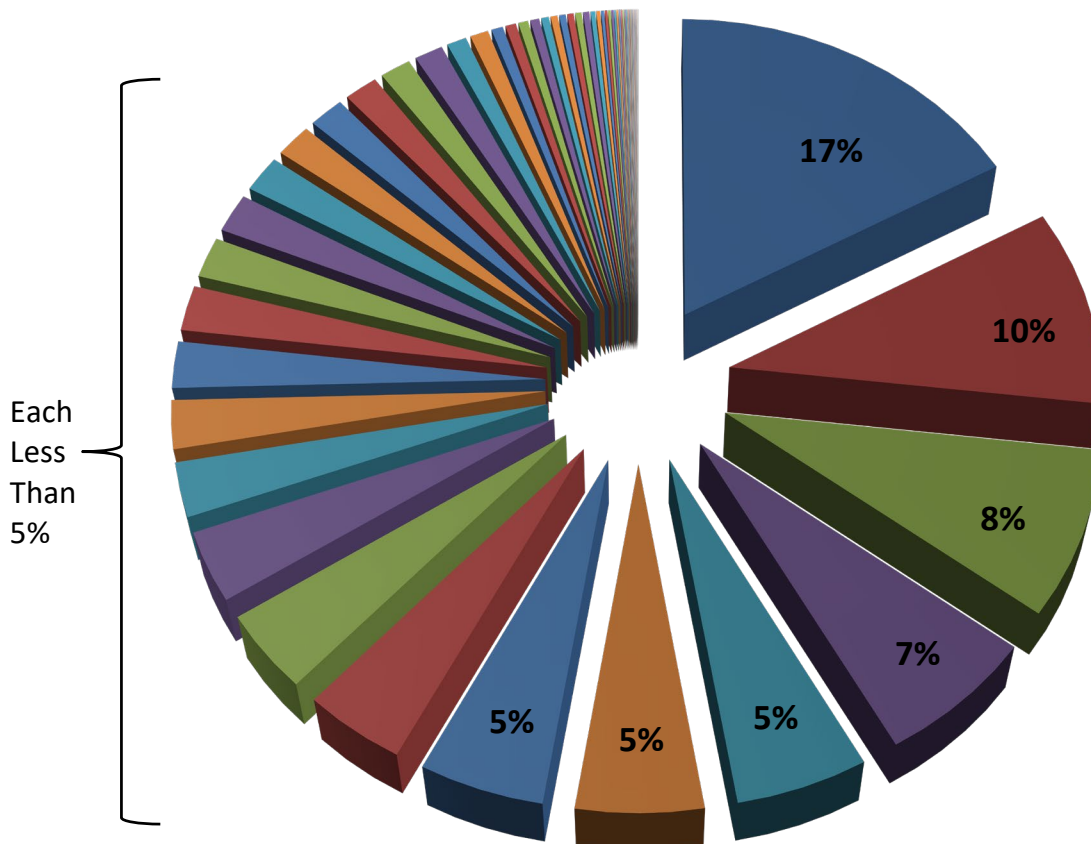
APPENDIX

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 CO<sub>2</sub> allowances is based on the requirement for each compliance entity in the RGGI footprint to obtain one CO<sub>2</sub> allowance for each short ton of CO<sub>2</sub> 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 17 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**

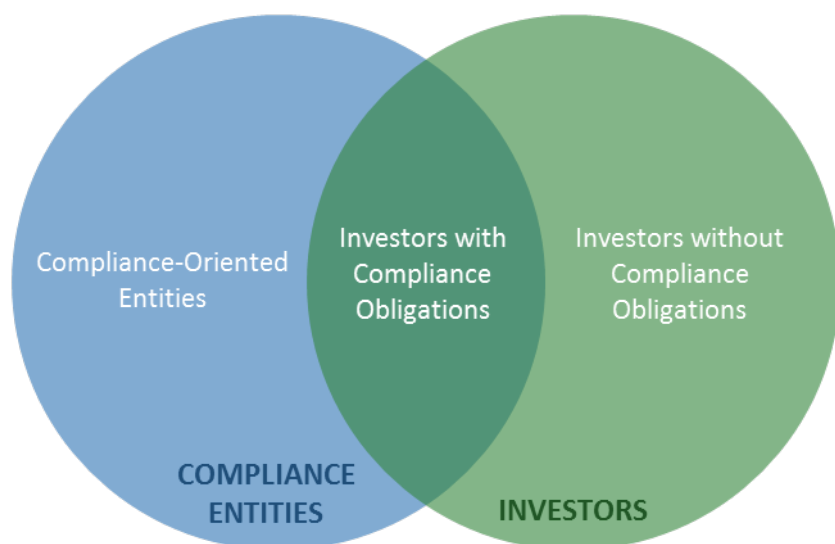


## B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 58

*Awards were distributed across 60 bidders with seven bidders purchasing one million tons or more and 24 bidders purchasing 200,000 tons or more.*

This report summarizes participation in Auction 58. 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.<sup>2</sup>

<sup>2</sup> 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 in the 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.<sup>3</sup> 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 58, Compliance Entities purchased 71 percent of the allowances sold. In the first 58 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 58, Compliance-Oriented Entities purchased 66 percent of the allowances sold.

After settlement of allowances sold in Auction 58:

- Fifty-three 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 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.

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<sup>3</sup> 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**

<b>Bidder</b>	<b>Number of Allowances Awarded</b>	<b>Bidder</b>	<b>Number of Allowances Awarded</b>
Bidder 1	4,863,203	Bidder 31	79,000
Bidder 2	2,500,000	Bidder 32	78,000
Bidder 3	1,250,000	Bidder 33	77,000
Bidder 4	1,240,000	Bidder 34	75,000
Bidder 5	1,072,000	Bidder 35	75,000
Bidder 6	1,050,000	Bidder 36	70,000
Bidder 7	1,000,000	Bidder 37	55,000
Bidder 8	900,000	Bidder 38	50,000
Bidder 9	800,000	Bidder 39	50,000
Bidder 10	750,000	Bidder 40	45,000
Bidder 11	750,000	Bidder 41	44,000
Bidder 12	607,000	Bidder 42	37,000
Bidder 13	600,000	Bidder 43	30,000
Bidder 14	464,000	Bidder 44	25,000
Bidder 15	375,000	Bidder 45	22,000
Bidder 16	350,000	Bidder 46	18,000
Bidder 17	310,000	Bidder 47	16,000
Bidder 18	308,000	Bidder 48	15,000
Bidder 19	301,000	Bidder 49	15,000
Bidder 20	276,000	Bidder 50	10,000
Bidder 21	210,000	Bidder 51	7,000
Bidder 22	200,000	Bidder 52	6,000
Bidder 23	200,000	Bidder 53	6,000
Bidder 24	200,000	Bidder 54	4,000
Bidder 25	150,000	Bidder 55	2,000
Bidder 26	150,000	Bidder 56	2,000
Bidder 27	146,000	Bidder 57	1,000
Bidder 28	114,000	Bidder 58	1,000
Bidder 29	100,000	Bidder 59	1,000
Bidder 30	80,000	Bidder 60	1,000

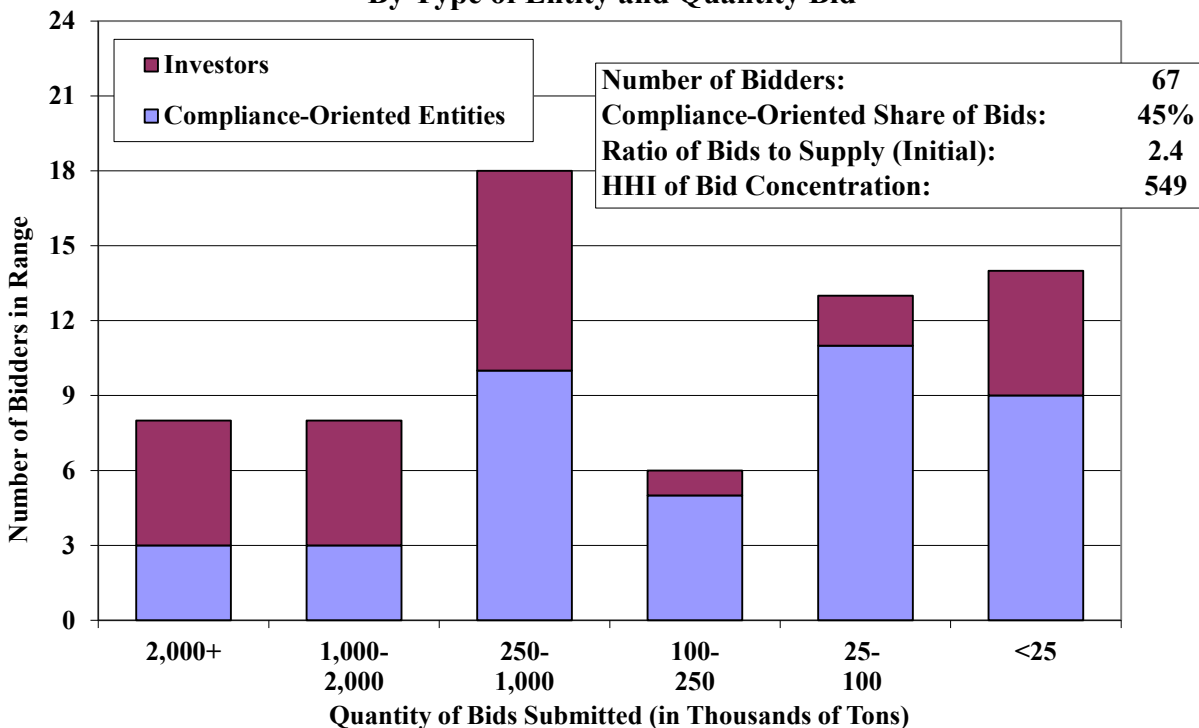
**C. DISPERSION OF BIDS IN AUCTION 58**

*Bids were submitted by 41 Compliance-Oriented Entities and 26 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. Six Compliance-Oriented Entities and ten Investors submitted bids for a large quantity of allowances (i.e., at least 1 million tons). 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 2.4 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 2.6 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 549. 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 58**

*Bids were submitted across a wide range of prices in the auction and the clearing price of \$12.99 was relatively consistent with average bid prices submitted.*

The following table reports several statistics regarding the bid prices for bids submitted in Auction 58. The median and mean bid prices are weighted by the quantity of each bid.

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<b>Bid Prices:</b>	
<b>Minimum</b>	<b>\$2.44</b>
<b>Maximum</b>	<b>\$22.00</b>
<b>Average (Median)</b>	<b>\$12.80</b>
<b>Average (Mean)</b>	<b>\$11.58</b>
<b>Clearing Price:</b>	<b>\$12.99</b>

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**E. NAMES OF POTENTIAL BIDDERS IN AUCTION 58**

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 58, the Participating States are releasing the names of Potential Bidders in Auction 58. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 80 Potential Bidders is as follows:

Appalachian Power Company	J. Aron & Company
Astoria Energy, LLC	Jamestown Board of Public Utilities
Benjamin Brooks	Kcarbon Holdings LLC
Birchwood Power Partners, L.P	Kendall Green Energy LLC
BP Products North America Inc.	Kleen Energy Systems, LLC
Buchanan Generation	KMC Thermo, LLC
Caithness Long Island, LLC	Koch Supply & Trading, LP
Calpine Energy Services, LP	Lucid Clarity Master Fund LP
Carbon Lighthouse Association	Macquarie Energy, LLC
Citadel Energy Marketing LLC	Mercuria Energy America, LLC
Clear Sky Enhanced Inflation Carbon Master Fund LP	Morgan Stanley Capital Group, Inc.
Coloma Strategies LLC	MV Global Carbon Fund LP
Commonwealth Chesapeake Company, LLC	National Grid Generation LLC dba National Grid
Consolidated Edison Comp. of NY, Inc.	Nautilus Power, LLC
Constellation Energy Generation, LLC	New Athens Generating Company, LLC
Cooler, Inc.	Newark Energy Center
CPV Maryland, LLC	NextEra Energy Marketing, LLC
CPV Shore, LLC	NRG Power Marketing LLC
CPV Towantic, LLC	Ocean State Power, LLC
CPV Valley, LLC	Old Dominion Electric Cooperative
Cricket Valley Energy Center, LLC	Pegasus Development Corporation
David Luke Oates	Pinelawn Power, LLC
Delaware City Refining Company, LLC	Pixelle Androscoggin LLC
DTE Energy Trading, Inc.	Power Authority of the State of New York
Dynegy Marketing and Trade, LLC	RBC
East Coast Environmental, LLC	Selkirk Cogen Partners, LP
Edgewood Energy, LLC	Shell Energy North America (US), LP
EFS Parlin Holdings, LLC	Shoreham Energy, LLC
Elbow River Marketing LTD.	Statkraft US, LLC
Element Markets Emissions, LLC	STX Commodities LLC
Empire Generating Co., LLC	Taunton Municipal Lighting Plant
Energy Center Dover	Tenaska Pennsylvania Partners, LLC
Equus Power I, LP	Tenaska, Inc.
Footprint Power Salem Harbor Development LP	Trafigura Trading LLC
Gen IV Investment Opportunities, LLC	Village of Freeport
Hartree Partners, LP	Virginia Electric and Power Company
Hawkeye Energy Greenport	Vitol Inc.
Helix Ravenswood Energy, LLC	Wallingford Energy, LLC
Indeck-Corinth Limited Partnership	William MacLeod
Indeck-Olean Limited Partnership	World Carbon Fund