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Friday, June 5, 2020

CO₂ Allowances Sold for \$5.75 in 48th RGGI Auction

\$93.9 Million Raised for Reinvestment in Second Auction of 2020

NEW YORK — The ten New England and Mid-Atlantic states participating in the Regional Greenhouse Gas Initiative (RGGI), the nation's first market-based regulatory program to reduce greenhouse gas (GHG) pollution, today announced the results of their 48^{th} auction of carbon dioxide (CO₂) allowances.

16,336,298 CO₂ allowances were sold at the auction at a clearing price of \$5.75. Bids for the CO₂ allowances ranged from \$2.32 to \$8.00 per allowance. Additional details are available in the *Market Monitor Report for Auction 48*, which is appended.

The auction generated \$93.9 million for states to reinvest in strategic programs, including energy efficiency, renewable energy, direct bill assistance, and GHG abatement programs.

11.8 million cost containment reserve (CCR) allowances were also available for sale. None of the CCR allowances were sold. The CCR is a fixed additional supply of allowances that are made available for sale if CO₂ allowance prices exceed certain price levels (\$10.77 in 2020).

"We applaud the completion this week of another successful RGGI auction," said Martin Suuberg, Commissioner of the Massachusetts Department of Environmental Protection and Chair of the RGGI, Inc. Board of Directors. "In times of uncertainty, it is important to look forward. The \$93.9 million raised in the 48th RGGI auction enable states to invest according to their state-specific priorities—including clean energy and energy efficiency programs that advance decarbonization while delivering health and consumer benefits."

"The bipartisan leadership demonstrated in the RGGI program continues to serve as a model of regional climate action," said Ben Grumbles, Secretary of the Maryland Department of the Environment and Vice Chair of the RGGI, Inc. Board of Directors. "Given the challenges faced by so many across the region, the revenues generated by the 48th RGGI auction will provide critical support to programs that spur economic growth and job creation across the RGGI states. RGGI shows that the region's leadership on climate change has also strengthened economic resilience."

Auction 48 Results At-A-Glance		
Auction Date	June 3, 2020	
Allowances Offered for Sale	16,336,298	
Allowances Sold	16,336,298	
Ratio of Bids to Supply	2.0x	
Clearing Price	\$5.75	
Reserve Price	\$2.32	
Proceeds from Auction 48	\$93,933,713.50	
Total Cumulative Proceeds (All Auctions)	\$3,544,728,465.04	
Number of Bidders in Auction 48	35	
Percent of Allowances Purchased by Compliance- Oriented Entities in Auction 48	31%	
Percent of Allowances Purchased by Compliance Entities in Auction 48	62%	
Percent of Allowances Purchased by Compliance Entities in Auctions 1 - 48	74%	

More auction data is also available at: <u>https://www.rggi.org/auctions/auction-results</u>. Market monitor reports are available at: <u>https://www.rggi.org/auctions/market-monitor-reports</u>. To receive announcements relating to future auctions and other RGGI news, please join the RGGI, Inc. mailing list at <u>http://eepurl.com/h2ICM</u>.

About the Regional Greenhouse Gas Initiative (RGGI)

The New England and Mid-Atlantic states participating in the fourth RGGI control period (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont) have implemented the first mandatory market-based regulatory program in the U.S. to reduce greenhouse gas emissions. The 2020 RGGI cap is 96.2 million short tons. The RGGI states also include interim adjustments to the RGGI cap to account for banked CO₂ allowances. The 2020 RGGI adjusted cap is 74.3 million short tons.

RGGI is composed of individual CO₂ budget trading programs in each state, based on each state's independent legal authority. A CO₂ allowance represents a limited authorization to emit one short ton of CO₂, as issued by a respective state. A regulated power plant must hold CO₂ allowances equal to its emissions for each three-year control period. RGGI's fourth control period began on January 1, 2018 and extends through December 31, 2020. For more information, visit <u>www.rggi.org</u>.

About the Regional Greenhouse Gas Initiative, Inc.

The Regional Greenhouse Gas Initiative, Inc. (RGGI, Inc.) was created to provide technical and administrative services to the states participating in the Regional Greenhouse Gas Initiative. RGGI, Inc. is a 501(c)(3) nonprofit organization. For more information, visit: <u>www.rggi.org/rggi-inc/contact</u>.



MARKET MONITOR REPORT FOR AUCTION 48

Prepared for:

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

Prepared By:



June 5, 2020



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, and Vermont). 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, disclosed, or referred to in this report to in this report.

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 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 48

As the Market Monitor for the RGGI CO_2 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 48, which was held on June 3, 2020.

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 CO_2 allowances. Bids were submitted to purchase 2.0 times the available supply of allowances, resulting in a clearing price of \$5.75 per ton. Compliance-Oriented Entities purchased 31 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 48 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.

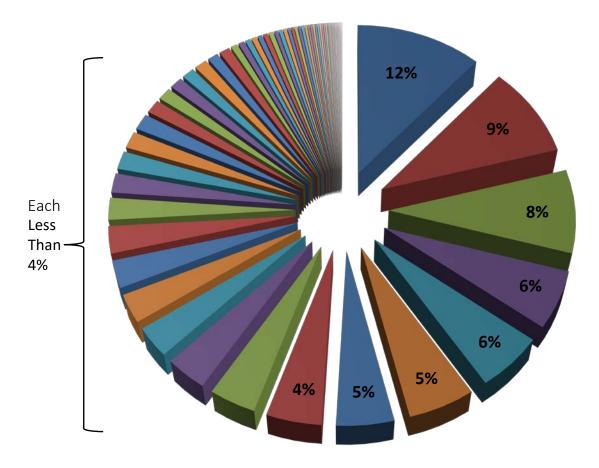


APPENDIX

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. The largest compliance entity represents only 12 percent of the total projected demand for allowances. Nearly half of the projected demand is composed of entities that each account for less than 4 percent of the total demand. Participation by a large number of entities facilitates the competitive performance of the auction.







B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 48

Awards were distributed across 31 bidders with five bidders purchasing one million tons or more and 13 bidders purchasing 200,000 tons or more.

This report summarizes participation in Auction 48. 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.

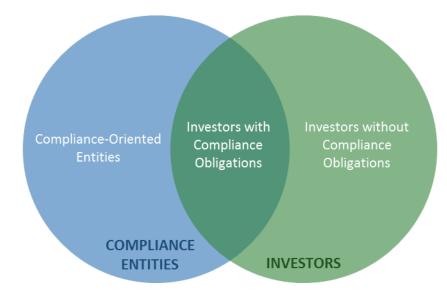


Figure 2: Classifications of Participant Firms in the RGGI Marketplace

- *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 obligations² and their affiliates.³ 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 48, Compliance Entities purchased 62 percent of the allowances sold. In the first 48 RGGI auctions, Compliance Entities purchased 74 percent of the allowances sold. In Auction 48, Compliance-Oriented Entities purchased 31 percent of the allowances sold.

After settlement of allowances sold in Auction 48:

- Forty-seven percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Fifty-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 The Virginia governor recently signed legislation providing for Virginia to participate in RGGI beginning January 2021. Since this occurred, firms owning budget sources in Virginia are treated as compliance entities in our reports.

³ 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.

Number of Allowance		
Bidder	Awarded	
Bidder 1	4,000,000	
Bidder 2	2,551,298	
Bidder 3	2,500,000	
Bidder 4	1,100,000	
Bidder 5	1,000,000	
Bidder 6	750,000	
Bidder 7	600,000	
Bidder 8	600,000	
Bidder 9	550,000	
Bidder 10	380,000	
Bidder 11	326,000	
Bidder 12	300,000	
Bidder 13	275,000	
Bidder 14	198,000	
Bidder 15	166,000	
Bidder 16	166,000	
Bidder 17	150,000	
Bidder 18	147,000	
Bidder 19	132,000	
Bidder 20	132,000	
Bidder 21	70,000	
Bidder 22	70,000	
Bidder 23	50,000	
Bidder 24	50,000	
Bidder 25	20,000	
Bidder 26	17,000	
Bidder 27	15,000	
Bidder 28	10,000	
Bidder 29	5,000	
Bidder 30	5,000	
Bidder 31	1,000	

Table 1: Quantity of Allowances Awarded by Bidder

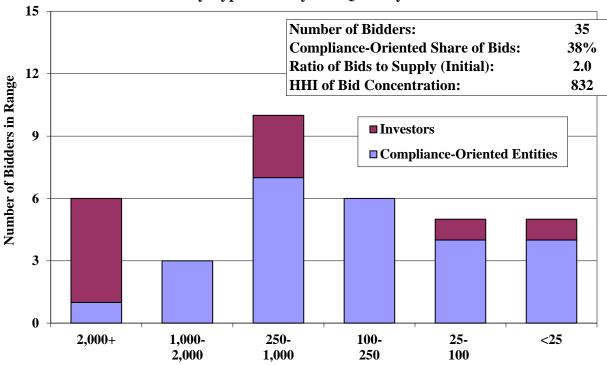


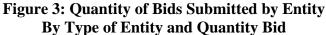
C. DISPERSION OF BIDS IN AUCTION 48

Bids were submitted by 25 Compliance-Oriented Entities and ten 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. Four Compliance-Oriented Entities and five Investors submitted bids for a large quantity of allowances (i.e., at least 1 million tons). Overall, Compliance-Oriented Entities accounted for 38 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.0 times the Initial Offering. In the previous auction, 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"), was relatively low at 832 and somewhat higher than in recent auctions. 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).





Quantity of Bids Submitted (in Thousands of Tons)

D. SUMMARY OF BID PRICES IN AUCTION 48

Bids were submitted across a wide range of prices in the auction and the clearing price of \$5.75 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 48. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.32
Maximum	\$8.00
Average (Median)	\$5.75
Average (Mean)	\$5.34
Clearing Price:	\$5.75



E. NAMES OF POTENTIAL BIDDERS IN AUCTION 48

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 48, the Participating States are releasing the names of Potential Bidders in Auction 48. The states defined potential bidders as: "Each Applicant that has been qualified and submitted a complete *Intent to Bid.*" The list of 40 Potential Bidders is as follows:

Astoria Energy, LLC BP Products North America Inc. Calpine Energy Services, LP Carbon Lighthouse Association City of Vineland Clay Hills Management Ltd. Consolidated Edison Comp. of NY, Inc. CPV Towantic, LLC CPV Valley, LLC Delaware Municipal Electric Corp. Dighton Power, LLC DTE Energy Trading, Inc. Dynegy Marketing and Trade, LLC Exelon Generation Company, LLC Footprint Power Salem Harbor Development LP Hawkeye Energy Greenport Indeck-Corinth Limited Partnership Jamestown Board of Public Utilities Kendall Green Energy LLC KMC Thermo, LLC

Koch Supply & Trading, LP Luminus Energy Partners Master Fund, Ltd. Morgan Stanley Capital Group, Inc. National Grid Generation LLC dba National Grid Nautilus Power, LLC Old Dominion Electric Cooperative Power Authority of the State of New York PSEG Energy Resources & Trade LLC RBC Revere Power, LLC Rhode Island State Energy Center, LP Selkirk Cogen Partners, LP Shell Energy North America (US), LP Statkraft US, LLC Taunton Municipal Lighting Plant Tenaska Power Services Co. Village of Freeport Virginia Electric and Power Company Vitol Inc. Wallingford Energy, LLC