



**MARKET MONITOR REPORT
FOR AUCTION 31**

Prepared for:

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

Prepared By:



March 11, 2016

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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 Northeast 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 31

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 auctions by EnerNOC, Inc. This report summarizes our findings regarding RGGI Auction 31, which was held on March 9, 2016.

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.

Forty-six bidders participated in the offering of CO₂ allowances. Bids were submitted to purchase 3.5 times the available supply of allowances, resulting in a clearing price of \$5.25 per ton. Compliance-oriented entities purchased 59 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 31 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.

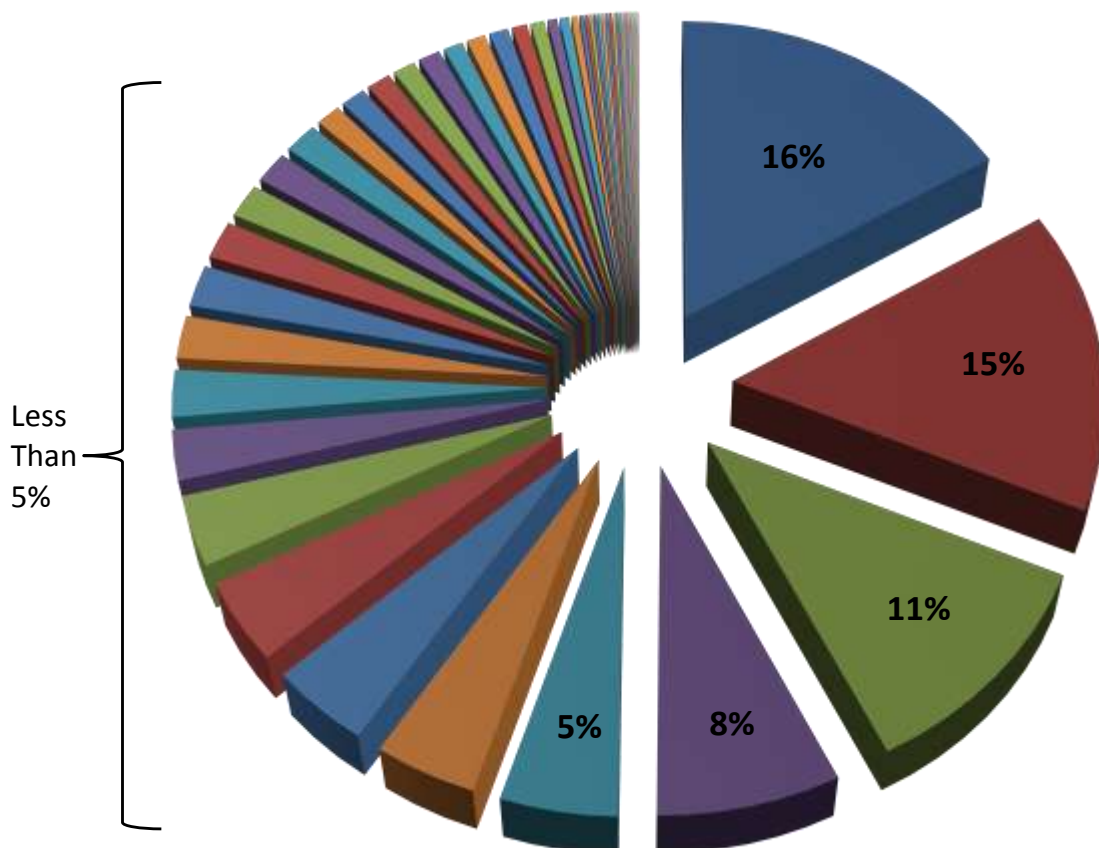
APPENDIX

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 following figure shows the relative shares of projected demand for RGGI allowances by compliance entity in the current control period. The largest compliance entity represents only 16 percent of the total projected demand for allowances. 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 31

Awards were distributed across 39 bidders with six bidders purchasing one million tons or more and 16 bidders purchasing 300,000 tons or more.

This report summarizes participation by compliance entities and their affiliates.¹ In Auction 31, compliance entities and their affiliates purchased 67 percent of the allowances sold. In the first 31 RGGI auctions, all compliance entities and their affiliates purchased 77 percent of the allowances sold.

We also separately report the purchases and holdings of allowances for:

- *Compliance-Oriented Entities:* This includes most compliance entities and their affiliates. This category excludes firms that have compliance obligations but which hold a number of allowances that exceeds their estimated compliance obligations by a margin that suggests they are also buying for re-sale or some other investment purpose.²
- *Other Entities:* This includes all other entities.

The following statistics summarize the purchases and holdings of allowances by type of participant under the RGGI program:

- In Auction 31, compliance-oriented entities purchased 59 percent of the allowances sold.
- After settlement of allowances sold in Auction 31, 50 percent of the allowances in circulation will be held by firms that are believed to hold them for compliance purposes.³

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.

¹ In this report, affiliated firms are firms that: (i) have a parent-subsidary 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.

² 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 2020 and (b) the total number of allowances in circulation.

³ 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 other compliance entities (i.e., compliance entities that are not included in the compliance-oriented category). Note this calculation treats allowances surrendered for 2015 Interim Compliance as no longer in circulation.

Table 1: Quantity of Allowances Awarded by Bidder

Bidder	Number of Allowances Awarded
Bidder 1	1,600,000
Bidder 2	1,500,000
Bidder 3	1,250,000
Bidder 4	1,250,000
Bidder 5	1,200,000
Bidder 6	1,000,000
Bidder 7	665,000
Bidder 8	660,732
Bidder 9	652,000
Bidder 10	625,000
Bidder 11	590,000
Bidder 12	570,000
Bidder 13	550,000
Bidder 14	417,000
Bidder 15	350,000
Bidder 16	332,000
Bidder 17	250,000
Bidder 18	230,000
Bidder 19	160,000
Bidder 20	141,000
Bidder 21	135,000
Bidder 22	115,000
Bidder 23	100,000
Bidder 24	100,000
Bidder 25	100,000
Bidder 26	75,000
Bidder 27	69,000
Bidder 28	33,000
Bidder 29	23,000
Bidder 30	17,000
Bidder 31	16,000
Bidder 32	14,000
Bidder 33	10,000
Bidder 34	10,000
Bidder 35	10,000
Bidder 36	8,000
Bidder 37	7,000
Bidder 38	3,000
Bidder 39	1,000

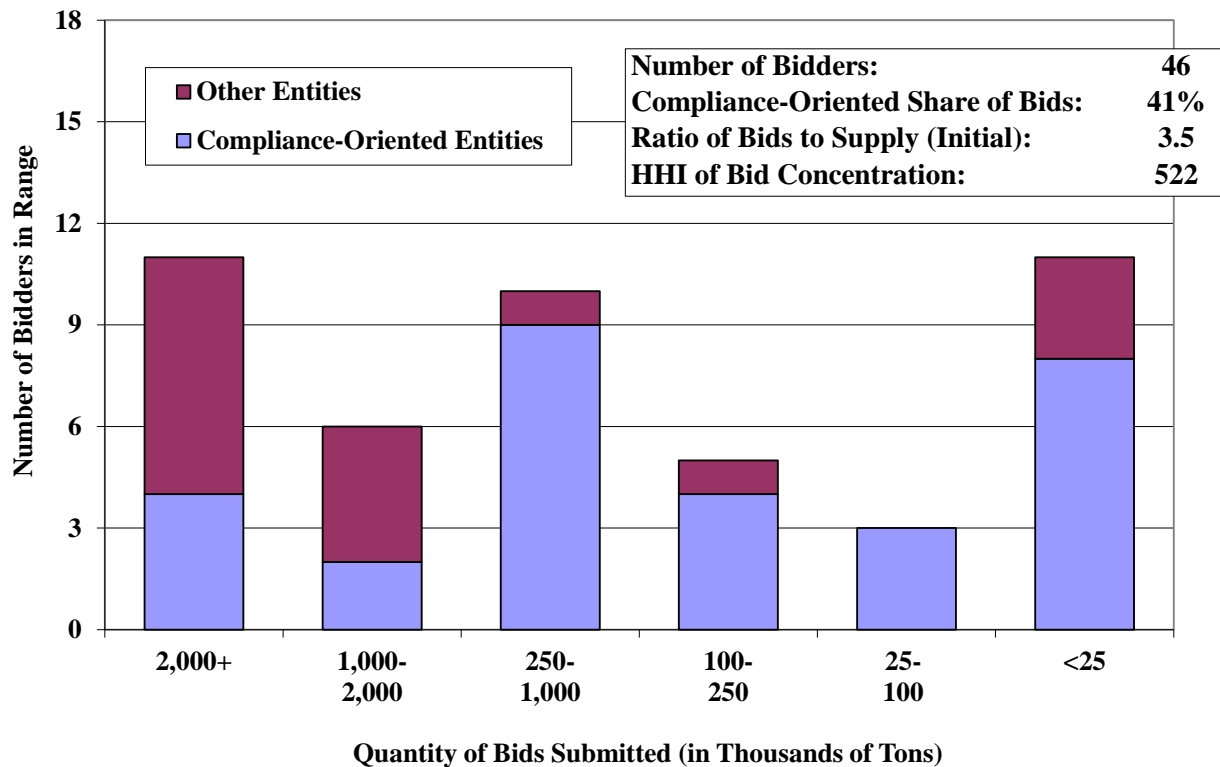
C. DISPERSION OF BIDS IN AUCTION 31

Bids were submitted by 30 compliance-oriented entities and 16 other entities. 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 seven other entities submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, compliance-oriented entities accounted for 41 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 3.5 times the available supply. In Auction 30, the quantity of allowances for which bids were submitted was 3.0 times the Initial Offering.

The bid quantities were widely distributed among the 46 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), is relatively low at 522, consistent with recent auctions. The HHI is a standard measure of concentration calculated by squaring each entity’s share and then summing the squares across all entities (i.e., the index ranges from 0 to 10,000).

**Figure 2: Quantity of Bids Submitted by Entity
By Type of Entity and Quantity Bid**



D. SUMMARY OF BID PRICES IN AUCTION 31

Bids were submitted across a wide range of prices in the auction and the clearing price of \$5.25 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 31. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.10
Maximum	\$10.46
Average (Median)	\$4.75
Average (Mean)	\$4.41
Clearing Price:	\$5.25

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 31

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 31, the Participating States are releasing the names of Potential Bidders in Auction 31. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 57 Potential Bidders is as follows:

Astoria Energy, LLC	Indeck-Yerkes Limited Partnership
Berkshire Power Company, LLC	Jamestown Board of Public Utilities
Blue Delta Energy, LLC	J-Power USA Development Co., Ltd.
BP Products North America Inc.	Kendall Green Energy, LLC
Brooklyn Navy Yard Cogen Partners, LP	Kleen Energy Systems, LLC
Caithness Long Island, LLC	KMC Thermo, LLC
Calpine Energy Services, LP	Koch Supply & Trading, LP
Carbon Lighthouse Association	Luminus Energy Partners Master Fund, Ltd.
Castleton Commodities Merchant Trading, LP	Macquarie Energy, LLC
Castleton Power, LLC	Maxim Power (USA), Inc.
City of Dover	Mercuria Energy America, Inc.
Consolidated Edison Comp. of NY, Inc.	Morgan Stanley Capital Group, Inc.
Covanta Niagara I, LLC	National Grid Gen. dba National Grid
Delaware City Refining Company, LLC	NextEra Energy Power Marketing, LLC
Delaware Municipal Electric Corp.	NRG Power Marketing, LLC
Direct Energy Business Marketing, LLC	Old Dominion Electric Cooperative
Dominion Energy Marketing, Inc.	Power Authority of the State of New York
DRW Commodities, LLC	PSEG Energy Resources & Trade, LLC
DTE Energy Trading, Inc.	Public Service Company of New Hampshire
EDF Trading North America, LLC	RBC
Energie Row, LLC	Selkirk Cogen Partners, LP
Essential Power, LLC	Talen Energy Marketing, LLC
Exelon Generation Company, LLC	Taunton Municipal Lighting Plant
Five Rings Capital, LLC	TransCanada Power Marketing, Ltd.
GDF SUEZ Energy Marketing NA, Inc.	Upstate New York Power Producers, LLC
GenOn Energy Management, LLC	Verso Corporation
Hawkeye Energy Greenport	Vitol Inc.
Indeck-Corinth Limited Partnership	Wallingford Energy, LLC
Indeck-Oswego Limited Partnership	