

# MARKET MONITOR REPORT FOR AUCTION 2

# **Prepared for:**

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

**Prepared By:** 



**JANUARY 5, 2008** 



## **MEMORANDUM**

**TO:** RGGI, Inc.

**RGGI Participating States** 

**FROM:** David Patton

Pallas LeeVanSchaick

**DATE:** January 5, 2009

**RE:** Allowance Auction on December 17, 2008

As the Market Monitor for the RGGI CO<sub>2</sub> allowance market, Potomac Economics monitors the conduct of market participants in both the primary auctions and the secondary market to identify indications of market manipulation or collusion. We also review the administration of the auctions by World Energy. This memorandum summarizes our findings regarding the second RGGI allowance auction, which was held on December 17, 2008.

We observed the auction as it occurred and have completed our review and analysis of its results. Based on our monitoring of participant conduct in the auction, we find no material evidence of collusion or manipulation by bidders. The vast majority of bids were consistent with competitive expectations.

Participation in the auction was robust with 69 separate entities submitting bids to purchase nearly 3.5 times the available supply of allowances in the auction. This liquidity contributed to generating a clearing price that is consistent with the underlying supply and demand fundamentals governing the CO<sub>2</sub> allowance market. It is also encouraging that compliance entities or their affiliates, which should value the allowances most highly, purchased most of the allowances 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 hardware or software problems, communications issues, security breaches, or other problems with the auction platform.

In summary, the results of our monitoring of CO<sub>2</sub> Allowance Auction 2 raise no material concerns regarding the auction process or its results. An appendix to this memo provides additional information about the market for RGGI CO<sub>2</sub> allowances and outcomes of the auction.



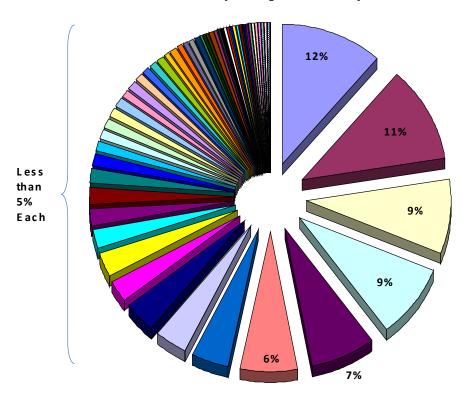
# **APPENDIX**

#### 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 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. Almost 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. Dispersion of Bids in Auction 2

The large amount of bids submitted relative to the available supply and the wide dispersion of bids across both compliance entities and non-compliance entities are positive indicators about the competitiveness of the auction.

The following figure summarizes the quantity of bids submitted in the auction by 69 bidders. Most of the bidders that submitted a large number of bids (e.g., 2 million tons or more) were compliance entities. Overall, compliance entities accounted for 76 percent of the quantity of bids submitted in the auction.

In addition to demand exceeding supply by 3.5 to 1, the bids quantities were widely distributed among the 69 bidders. The concentration of bids, using the Herfindahl-Hirschman Index ("HHI"), was very low at 459. The HHI is a standard measure of concentration calculated by squaring each entity's share and then summing the squares across all entities (hence, the index ranges from 0 to 10,000). The low concentration of bids and high ratio of bids to the available supply indicates that the auction was liquid.

15 **Number of Bidders:** 69 **Compliance Entity Share of Bids:** 76% **■** Non-Compliance Entities **Ratio of Bids to Supply:** 3.5 HHI of Bid Concentration: 459 12 **■** Compliance Entities Number of Bidders in Range 9 3 0 5,000 or 2,000 to 1,000 to 250 to 100 to 25 to Less More 5,000 2,000 1,000 250 100 Than 25

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

Quantity of Bids Submitted (in Thousands of Tons)



#### C. Summary of Purchases of Allowances in Auction 2

The purchase of most allowances by compliance entities and their affiliates is encouraging, because compliance entities generally value the allowances most highly. Awards were widely distributed across 46 bidders with four bidders purchasing two million tons or more, seven bidders purchasing one million tons or more, and 17 bidders purchasing 250,000 tons or more.

The following figure shows the quantity of allowances purchased in the auction by each of three types of entities:

- Compliance Entities: This includes all compliance entities and their affiliates.
- Environmental/Individuals: This includes non-compliance entities describing themselves as "Environmental Groups" or "Individual Person" in their qualification application.
- Other Non-Compliance Entities: This includes all other non-compliance entities.

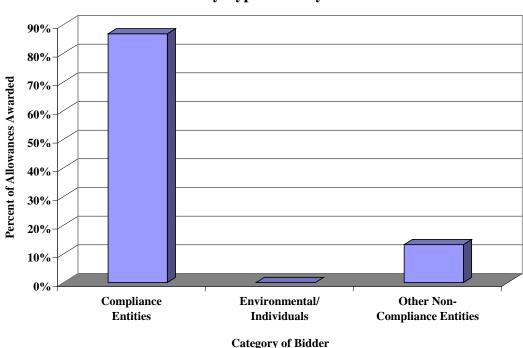


Figure 3: Quantity of Allowances Awarded By Type of Entity

The following table shows the quantity of allowances purchased by each bidder in the auction. The identity of each bidder is masked, and the bidders are ranked according to the amount of allowances awarded in the auction, from largest to smallest.



Table 1: Quantity of Allowances Awarded by Bidder

	Number of
Bidder	Allowances Awarded
Diddei	Anowances Awarucu
Bidder 1	7,876,000
Bidder 2	5,150,000
Bidder 3	3,762,898
Bidder 4	2,250,000
Bidder 5	1,637,000
Bidder 6	1,580,000
Bidder 7	1,375,000
Bidder 8	959,000
Bidder 9	870,000
Bidder 10	820,000
Bidder 11	750,000
Bidder 12	650,000
Bidder 13	605,000
Bidder 14	517,000
Bidder 15	500,000
Bidder 16	300,000
Bidder 17	250,000
Bidder 18	243,000
Bidder 19	200,000
Bidder 20	200,000
Bidder 21	150,000
Bidder 22	150,000
Bidder 23	125,000
Bidder 24	105,000
Bidder 25	100,000
Bidder 26	100,000
Bidder 27	60,000
Bidder 28	50,000
Bidder 29	50,000
Bidder 30	29,000
Bidder 31	24,000
Bidder 32	15,000
Bidder 33	10,000
Bidder 34	10,000
Bidder 35	7,000
Bidder 36	6,000
Bidder 37	5,000
Bidder 38	3,000
Bidder 39	3,000
Bidder 40	2,000
Bidder 41	2,000
Bidder 42	1,000
Bidder 43	1,000
Bidder 44	1,000
Bidder 45	1,000
Bidder 46	1,000



### D. Summary of Bid Prices in Auction 2

The distribution of bid prices submitted in the auction indicates that the demand for allowances was elastic, which is a signal that the results were competitive.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 2. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$1.86
Maximum	\$7.20
Average (Median)	\$3.00
Average (Mean)	\$3.03



#### E. Names of Potential Bidders in Auction 2

In accordance with the Section 2.8 of the Auction Notice for CO<sub>2</sub> Allowance Auction 2 on December 17, 2008, the Participating States are releasing the names of Potential Bidders in Auction 2. The states defined potential bidders as: "Each Applicant that has been qualified and submitted a complete *Intent to Bid.*" The list of 84 Potential Bidders is as follows:

Adirondack Council Inc.

Aeolus Fund II Master Fund, Ltd.

AES Eastern Energy, LP Aircraft Services Corporation

Allegheny Energy Supply Company, LLC

ANP Funding I, LLC Astoria Energy

Astoria Generating Company, LP

Barclays Bank PLC
Boston Generating, LLC
Brick Power Holding, LLC
Brookfield Energy Marketing Inc.
Calpine Energy Services, LP
CE2 Carbon Capital, LLC
CE2 Environmental Markets, LP
CE2 Environmental Opportunities I, LP

Chambers Cogeneration, LP Clean Air Conservancy Conectiv Energy Services, Inc.

Conn. Municipal Electric Energy Coop. Consolidated Edison Energy, Inc.

Constellation Energy Commodities Group, Inc.

C-Quest Capital, LLC
DC Energy Marketing, LLC
Dominion Energy Marketing, Inc.
Dynegy Marketing and Trade

**Eco-Energy** 

Element Markets, LLC Energy America, LLC Evolution Markets, Inc.

FirstLight Power Resources Mgmt, LLC FPL Energy Power Marketing, Inc. Global Inv. Alternatives Group, Ltd.

Green Mountain Power Hess Corporation Green

Indeck Energy Services of Silver Springs, Inc.

Indeck-Corinth Limited Partnership Indeck-Olean Limited Partnership Indeck-Oswego Limited Partnership Indeck-Yerkes Limited Partnership Integrys Energy Services, Inc.

J. Aron & Company

James S.Burrell II

Jamestown Board of Public Utilities
JP Morgan Ventures Energy Corporation

Laurence DeWitt

Logan Generating Company, LP Louis Dreyfus Energy Services, LP Massachusetts Muni. Wholesale Elec. Co. Massachusetts Water Resources Authority

Maxim Power Corp.

Merrill Lynch Commodities, Inc.
Milford Power Company, LLC
Millennium Power Partners, LP
Mirant Energy Trading, LLC
Morgan Stanley Capital Group, Inc.
National Grid Gen. dba National Grid
New Athens Generating Company, LLC
North American Energy Alliance, LLC

NRG Power Marketing, LLC Old Dominion Electric Cooperative Power Authority of the State of New York

PPL EnergyPlus, Inc.

PSEG Energy Resources & Trade, LLC Public Service Company of New Hampshire

**RBC** 

RC Cape May Holdings, LLC

Rochester Gas and Electric Corporation

RPL Holdings, Inc.
Saranac Power Partners
Selkirk Cogen Partners, LP
Sempra Energy Trading, LLC
Seventh Generation Advisors

Shell Energy North America (US), LP

Statkraft Markets GmbH Sterling Planet, Inc.

SUEZ Energy Marketing NA, Inc.

Tradax Energy, Inc.

TransCanada Power Marketing Ltd.

Universal Carbon, LLC Village of Freeport

Vitol Inc.

William P Short III Wing Fuel, LLC