

# MARKET MONITOR REPORT FOR AUCTION 12

# **Prepared for:**

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

**Prepared By:** 



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The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort by participating states to reduce emissions of carbon dioxide (CO<sub>2</sub>), a greenhouse gas that causes global warming.

RGGI, Inc. is a non-profit corporation created to provide technical and administrative services to the CO<sub>2</sub> Budget Trading Programs of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.



# MARKET MONITOR REPORT FOR AUCTION 12

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 auctions by World Energy Solutions. This report summarizes our findings regarding RGGI Auction 12, which was held on June 8, 2011.

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.

A large number of bidders participated in the offering of CO<sub>2</sub> allowances for the current control period (with a 2011 vintage year). Twenty-five entities submitted bids to purchase 30 percent of the available supply of allowances, resulting in a clearing price equal to the reserve price of \$1.89 per ton. Compliance entities or their affiliates purchased 91 percent of the allowances in the offering.

A small number of allowances were auctioned for a future control period (with a 2014 vintage year). Five entities submitted bids to purchase 51 percent of the available supply of allowances, resulting in a clearing price equal to the reserve price of \$1.89 per ton. Compliance entities or their affiliates purchased 100 percent of the allowances in the offering.

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.
- There were no indications of issues with the auction platform such as hardware or software problems, communications issues, or security breaches.

Sensitive information was treated in a manner consistent with auction rules and procedures, with one exception. In one instance, a document submitted by one bidder was inadvertently sent to another bidder during the auction qualification process. The two bidders were allowed to submit revised documents, and there is no indication that the competitiveness of the auction was adversely affected.

In summary, the results of our monitoring of RGGI Auction 12 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 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 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 4 percent of the total demand. Participation by a large number of entities facilitates the competitive performance of the auction.

Less Than 4% Each 9%

Figure 1: Projected Demand for RGGI Allowances Shares by Compliance Entity



#### B. DISPERSION OF BIDS IN AUCTION 12

In the offering of current control period allowances, bids were submitted by a large number of compliance entities and several non-compliance entities. A small number of allowances were also auctioned in advance for a future control period, with participation by five compliance entities. In our review of the bids and the qualification process, we found no material evidence of anti-competitive conduct or significant barriers to participation.

The following figure summarizes the quantities of allowances for which bids were submitted in the two offerings. In the offering of current control period allowances, just one compliance entity submitted bids for a large quantity of allowances (e.g., at least 2 million tons or 5 percent of the available supply). Overall, compliance entities accounted for 91 percent of the quantity of allowances for which bids were submitted in the offering of current control period allowances. The quantity of allowances for which bids were submitted decreased to 0.30 times the available supply in Auction 12 from 1.1 times the available supply in Auction 11 and 0.57 times the available supply in Auction 10.

In the offering of future control period allowances, the quantity of allowances for which bids were submitted was 0.51 times the available supply. This decreased from 1.4 times the available supply in Auction 11 and 0.55 times the available supply in Auction 10. Compliance entities accounted for 100 percent of the quantity of allowances for which bids were submitted in the offering of future control period allowances.

The bid quantities were widely distributed among the 25 bidders in the offering of current control period allowances. The concentration of bids, using the Herfindahl-Hirschman Index ("HHI"), was relatively low at 1122. Fewer entities submitted bids in the offering of future control period allowances, leading the concentration of bids to be much higher (4885). 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).



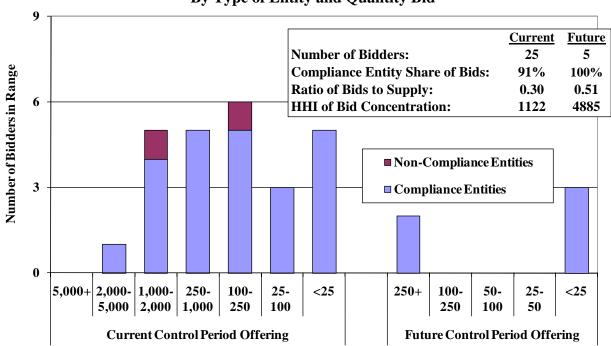


Figure 2: Quantity of Bids Submitted by Entity By Type of Entity and Quantity Bid

Quantity of Bids Submitted (in Thousands of Tons)



#### C. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 12

In the offering of current control period allowances, awards were widely distributed across 25 bidders with one bidder purchasing over two million tons, six bidders purchasing one million tons or more, and ten bidders purchasing 250,000 tons or more. In the offering of future control period allowances, awards were distributed across five bidders with two bidders purchasing 400,000 tons or more.

Compliance entities or their affiliates purchased 91 percent of the allowances in the offering of current control period allowances and 100 percent of the allowances in the offering of future control period allowances.

The share of allowances purchased and several other quantities are reported for each of three types of entities:

- Compliance Entities: This includes all compliance entities and their affiliates. In this report, affiliated firms 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.
- *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.

The following statistics summarize the purchases and holdings of allowances by compliance entities and their affiliates under the RGGI program:

- In Auction 12, compliance entities and their affiliates purchased:
  - ✓ 91 percent of the current control period allowances sold, and
  - ✓ 100 percent of the future control period allowances sold.
- In the first twelve RGGI auctions, compliance entities and their affiliates purchased:
  - ✓ 85 percent of the current control period allowances sold,
  - ✓ 92 percent of the future control period allowances sold, and
  - ✓ 85 percent of all allowances sold.
- Compliance entities and their affiliates will hold 97 percent of the allowances in circulation following the settlement of allowances sold in Auction 12.



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.

Table 1: Quantity of Allowances Awarded by Bidder

Bidder	Number of Current Control Period Allowances Awarded
Bidder 1	2,634,000
Bidder 2	1,939,000
Bidder 3	1,580,000
Bidder 4	1,100,000
Bidder 5	1,100,000
Bidder 6	1,000,000
Bidder 7	500,000
Bidder 8	440,000
Bidder 9	405,000
Bidder 10	400,000
Bidder 11	280,000
Bidder 12	227,000
Bidder 13	214,000
Bidder 14	150,000
Bidder 15	133,000
Bidder 16	130,000
Bidder 17	130,000
Bidder 18	59,000
Bidder 19	41,000
Bidder 20	30,000
Bidder 21	16,000
Bidder 22	10,000
Bidder 23	9,000
Bidder 24	8,000
Bidder 25	2,000

Bidder	Number of Future Control Period Allowances Awarded	
Bidder 1	466,000	
Bidder 2	466,000	
Bidder 3	9,000	
Bidder 4	1,000	
Bidder 5	1,000	



# D. SUMMARY OF BID PRICES IN AUCTION 12

The distribution of bid prices submitted in the auction indicates that the demand for allowances was relatively 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 12. The median and mean bid prices are weighted by the quantity of each bid.

	Current	<u>Future</u>
<b>Bid Prices:</b>		
Minimum	<b>\$1.89</b>	<b>\$1.89</b>
Maximum	<b>\$7.40</b>	<b>\$2.07</b>
Average (Median)	<b>\$1.91</b>	<b>\$1.90</b>
Average (Mean)	<b>\$1.99</b>	<b>\$1.90</b>
Clearing Prices:	<b>\$1.89</b>	<b>\$1.89</b>



#### E. NAMES OF POTENTIAL BIDDERS IN AUCTION 12

In accordance with Section 2.8 of the Auction Notice for CO<sub>2</sub> Allowance Auction 12 on June 8, 2011, the Participating States are releasing the names of Potential Bidders in Auction 12. The states defined potential bidders as: "Each Applicant that has been qualified and submitted a complete *Intent to Bid.*" The list of 47 Potential Bidders is as follows:

AES Eastern Energy, LP Aircraft Services Corporation Algonquin Windsor Locks, LLC

Astoria Energy, LLC

Astoria Generating Company, LP Brick Power Holding, LLC Brookfield Energy Marketing Inc. Brooklyn Navy Yard Cogen Partners, LP

Burlington Electric Department Caithness Long Island, LLC Calpine Energy Services, LP Castleton Power, LLC Chambers Cogeneration, LP ConocoPhillips Company

Consolidated Edison Comp. of NY, Inc. Constellation Energy Commodities Group

CP Energy Marketing (US) Inc.
Delaware Municipal Electric Corp.
Dominion Energy Marketing, Inc.
Dynegy Marketing and Trade, LLC
Empire Generating Co., LLC
Energy Echelon, LLC
EquiPower Resources

GDF SUEZ Energy Marketing NA, Inc.

GenOn Energy Management, LLC

Hess Corporation (G)

Indeck-Corinth Limited Partnership Jamestown Board of Public Utilities J-Power USA Development Co., Ltd. Logan Generating Company, LP

Massachusetts Muni. Wholesale Elec. Co. Morgan Stanley Capital Group, Inc. National Grid Gen. dba National Grid NextEra Energy Power Marketing, LLC North American Energy Alliance, LLC

NRG Power Marketing, LLC

Old Dominion Electric Cooperative PSEG Energy Resources & Trade, LLC Public Service Company of New Hampshire

**RBC** 

Selkirk Cogen Partners, LP

Shell Energy North America (US), LP

TAQA Gen X, LLC

TransCanada Power Marketing, Ltd.

Verso Paper Corp. Village of Freeport

Vitol Inc.