RGGI CO₂ Auctions Yield Millions for Investment in Clean Energy, Job Creation

Current Control Period Allowances Sold at $2.07
Future Control Period Allowances Sold at $1.86

(New York, NY) – The states participating in the Regional Greenhouse Gas Initiative (RGGI) today announced the results of the first quarterly auction of carbon dioxide (CO₂) allowances in 2010. The auction, held Wednesday, March 10th, yielded $87,956,944.56 for investment in the clean energy economy.

All of the 40,612,408 CO₂ allowances for the first three-year control period (2009-2011) offered in Wednesday’s auction sold at a price of $2.07.

In a parallel offering, the RGGI states also auctioned CO₂ allowances for the second three-year control period (2012-2014). A total of 2,091,000 of the 2,137,992 CO₂ allowances for the second control period sold at a price of $1.86. Unsold allowances may be sold in future auctions according to each state’s regulations.

Proceeds from all auctions held to date now total more than $582.3 million. States are investing proceeds to improve energy efficiency and accelerate the deployment of renewable energy technologies, creating thousands of jobs.

"RGGI has provided a roadmap to a clean energy future," said David Littell, Commissioner of the Maine Department of Environmental Protection and Chair of the Regional Greenhouse Gas Initiative, Inc. Board of Directors. "With each successful auction, the RGGI states continue to show that cap-and-trade works and can jumpstart a green economy with fewer emissions, lower electric bills and more jobs."

Across the region, businesses are hiring workers to implement the growing variety of energy efficiency and renewable energy programs funded with RGGI CO₂ allowance proceeds.

In particular, companies that conduct energy audits and install home weatherization measures are expanding to meet the demand for efficiency services. The workforce at the Center for Ecological Technology, a company that conducts RGGI-funded efficiency work on behalf of electric utilities in New England, has doubled over the last year, from 50 to 100 full-time employees, according to Laura Dubester, the company’s Co-Director. New positions range from field technicians and quality control personnel to IT and customer service specialists.

Conservation Services Group, a national energy services firm, has also doubled its workforce over the last 30 months. According to Maureen Huffam, the company’s Senior Vice President of Human Resources, "We hired 170 people last year. Today, we are at 592 employees, with 270 of them in New England. Just two months into this year, we’ve already hired 41 people. RGGI has certainly contributed to this increase in the number of jobs we’ve filled."

(more)
Energy auditing and weatherization are just two of many technical services needed to build a clean energy economy. RGGI state investments in energy efficiency also create jobs in design, manufacturing and technology development. According to the U.S. Department of Energy, every one million dollar investment in building weatherization creates more than 50 jobs in the installation of weatherization measures and another 10 to 20 jobs in the production of energy-efficient building materials.

"Expanded efficiency programs, funded in part by RGGI, are expected to create or maintain nearly 4,000 jobs in Massachusetts over three years," said Phil Giudice, Commissioner of the Massachusetts Department of Energy Resources. "The people trained and employed through these programs are designing and installing cost-effective efficiency measures that cut energy waste and save consumers money."

“The programs funded with RGGI proceeds are currently supporting approximately 200 full-time jobs in New Hampshire,” said Clifton Below, Commissioner of the New Hampshire Public Utilities Commission. "Every new job in this growth industry is a step toward a clean energy future for the state and region."

States are also investing in job training programs to provide workers with the skills needed to enter the green workforce. Maryland recently invested $750,000 of RGGI CO₂ allowance proceeds to provide energy efficiency-related job training to more than 600 contractors at 13 community colleges across the state. The Home Energy Retrofit and Weatherization Workforce Training Program, established in part by the state’s investment of RGGI proceeds, offers a “one-stop” training source for any energy retrofit career path in the state, including contractors working with local weatherization agencies and Maryland’s utility providers.

"We are training people every week to become home energy retrofit professionals," said Malcolm Woolf, Director of the Maryland Energy Administration. "Construction workers can easily learn to install air-ducts, insulate homes and improve overall home energy efficiency."

Similarly, New York State is investing RGGI proceeds to train hundreds of workers needed to improve the efficiency of homes and businesses to meet the state’s aggressive energy efficiency targets. As part of its $112 million investment in building sector energy efficiency improvements and job training the New York State Energy Research and Development Authority (NYSERDA) will partner with constituency-based organizations, community colleges, unions and other groups to build and expand training and certification programs for emerging workers, building remodelers, HVAC technicians, energy auditors and engineers.

“The RGGI states are investing these proceeds to help reduce energy costs today while building a clean energy economy for the future," said Francis J. Murray Jr., President and CEO of NYSERDA. "These funds will help develop the next generation of energy solutions that will create jobs and opportunities and benefit New York’s environment for years to come.”

To learn more about how each state is investing RGGI auction proceeds, please visit: http://www.rggi.org/states/program_investments.

Additional details about RGGI Auction 7 may be found in the Market Monitor Report for Auction 7, appended below.

**About the Regional Greenhouse Gas Initiative**

The 10 Northeast and Mid-Atlantic states participating in RGGI (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New Hampshire, New York, Rhode Island and Vermont) have designed and implemented the first market-based, mandatory cap-and-trade program in the
U.S. to reduce greenhouse gas emissions. Power sector CO₂ emissions are capped at 188 million short tons per year through 2014. The cap will then be reduced by 2.5 percent in each of the four years 2015 through 2018, for a total reduction of 10 percent.

A CO₂ allowance represents a limited authorization to emit one short ton of CO₂, as issued by a respective participating state. A regulated power plant must hold CO₂ allowances equal to its emissions to demonstrate compliance at the end of each three-year control period. The first control period for fossil fuel-fired electric generators under each state’s CO₂ Budget Trading Program took effect on January 1, 2009 and extends through December 31, 2011. Allowances for the first (2009-2011) control period may be used to meet current compliance obligations, or may be banked for use in future control periods. CO₂ allowances for the second (2012-2014) control period can only be used to meet compliance obligations beginning in 2012. CO₂ allowances issued by any participating state are usable across all state programs, so that the ten individual state CO₂ Budget Trading Programs, in aggregate, form one regional compliance market for CO₂ emissions. For more information turn to: www.rggi.org

**About 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 please visit: www.rggi.org/rggi

The RGGI auctions are administered by RGGI, Inc. and run on an online platform provided by World Energy Solutions, Inc.

###
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 the RGGI Participating States (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 Participating States, 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 Participating States, 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 Participating States, 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 a cooperative effort by participating states to reduce emissions of carbon dioxide (CO₂), a greenhouse gas that causes global warming.

RGGI, Inc. is a non-profit corporation created to provide technical and administrative services to the CO₂ Budget Trading Programs of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.
MARKET MONITOR REPORT FOR AUCTION 7

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 World Energy Solutions. This report summarizes our findings regarding RGGI Auction 7, which was held on March 10, 2010.

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.

Participation in the 2010 vintage offering was robust with 51 separate entities submitting bids to purchase 2.3 times the available supply of allowances, resulting in a clearing price of $2.07 per ton. Compliance entities or their affiliates purchased 85 percent of the allowances in the auction.

A small number of allowances were auctioned for the second control period (with a 2013 vintage year). 98 percent of the 2013 vintage allowances were sold, with nine entities submitting bids to purchase allowances, resulting in a clearing price of $1.86 per ton. Compliance entities or their affiliates purchased 100 percent of the allowances in the 2013 vintage offering.

Based on our review of the administration of the auction, 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 RGGI Auction 7 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. 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 6 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 7

In the 2010 vintage offering, bids were submitted for a large quantity of allowances relative to the available supply, and the bids were widely dispersed across both compliance entities and non-compliance entities. These are both positive indicators regarding the competitiveness of the auction.

A small number of allowances were also auctioned in advance for the 2013 vintage year, with nine compliance entities or their affiliates submitting bids to purchase 98 percent of the available supply of allowances. 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 2010 vintage offering, most of the bidders that submitted bids for a large quantity of allowances (e.g., at least 2 million tons which is 5 percent of the available supply) were compliance entities (or their affiliates). Overall, compliance entities accounted for 82 percent of the quantity of allowances for which bids were submitted in the 2010 vintage offering. Relative to the available supply of allowances, the quantity of allowances for which bids were submitted was slightly smaller than in the previous four auctions. However, the absolute quantity of allowances for which bids were submitted (over 90 million) was higher than in the previous four auctions.

In the 2013 vintage offering, the quantity of allowances for which bids were submitted by compliance entities increased 31 percent from Auction 6. No non-compliance entities participated in the 2012 and 2013 vintage offerings of Auction 5, Auction 6, and Auction 7.

In addition to demand exceeding supply by 2.3 to 1, the bid quantities were widely distributed among the 51 bidders in the 2010 vintage offering. The concentration of bids, using the Herfindahl-Hirschman Index ("HHI"), was very low at 710 in the 2010 vintage offering. Fewer entities submitted bids in the 2013 vintage offering, leading the concentration of bids to be substantially higher (2099). 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). In this report, firms that are involved in the management of a budget source may be categorized as compliance entities even if they do not have stock ownership in the source.
Figure 2: Quantity of Bids Submitted by Entity
By Type of Entity and Quantity Bid

<table>
<thead>
<tr>
<th>Number of Bidders:</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Entity Share of Bids:</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>Ratio of Bids to Supply:</td>
<td>2.3</td>
<td>0.98</td>
</tr>
<tr>
<td>HHI of Bid Concentration:</td>
<td>710</td>
<td>2099</td>
</tr>
</tbody>
</table>

![Graph showing quantity of bids submitted by entity type and quantity bid for 2010 and 2013 vintages.](image-url)
C. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 7

In the 2010 vintage offering, awards were widely distributed across 40 bidders with seven bidders purchasing two million tons or more, eleven bidders purchasing one million tons or more, and 24 bidders purchasing 250,000 tons or more. In the 2013 vintage offering, awards were distributed across nine bidders with five bidders purchasing 200,000 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](image)
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**

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Number of 2010 Allowances Awarded</th>
<th>Number of 2013 Allowances Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidder 1</td>
<td>7,000,000</td>
<td>Bidder 1</td>
</tr>
<tr>
<td>Bidder 2</td>
<td>5,000,000</td>
<td>Bidder 2</td>
</tr>
<tr>
<td>Bidder 3</td>
<td>5,000,000</td>
<td>Bidder 3</td>
</tr>
<tr>
<td>Bidder 4</td>
<td>2,941,408</td>
<td>Bidder 4</td>
</tr>
<tr>
<td>Bidder 5</td>
<td>2,650,000</td>
<td>Bidder 5</td>
</tr>
<tr>
<td>Bidder 6</td>
<td>2,250,000</td>
<td>Bidder 6</td>
</tr>
<tr>
<td>Bidder 7</td>
<td>2,150,000</td>
<td>Bidder 7</td>
</tr>
<tr>
<td>Bidder 8</td>
<td>1,425,000</td>
<td>Bidder 8</td>
</tr>
<tr>
<td>Bidder 9</td>
<td>1,300,000</td>
<td>Bidder 9</td>
</tr>
</tbody>
</table>
D. SUMMARY OF BID PRICES IN AUCTION 7

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 7. The median and mean bid prices are weighted by the quantity of each bid.

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Prices:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>$1.86</td>
<td>$1.86</td>
</tr>
<tr>
<td>Maximum</td>
<td>$5.00</td>
<td>$2.06</td>
</tr>
<tr>
<td>Average (Median)</td>
<td>$2.06</td>
<td>$1.90</td>
</tr>
<tr>
<td>Average (Mean)</td>
<td>$2.07</td>
<td>$1.94</td>
</tr>
<tr>
<td>Clearing Prices:</td>
<td>$2.07</td>
<td>$1.86</td>
</tr>
</tbody>
</table>
E. NAMES OF POTENTIAL BIDDERS IN AUCTION 7

In accordance with Section 2.8 of the Auction Notice for CO2 Allowance Auction 7 on March 10, 2010, the Participating States are releasing the names of Potential Bidders in Auction 7. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete Intent to Bid.” The list of 61 Potential Bidders is as follows:

- Adirondack Council Inc.
- AES Eastern Energy, LP
- Aircraft Services Corporation
- ANP Funding I, LLC
- Astoria Energy, LLC
- Astoria Generating Company, LP
- Barclays Bank PLC
- Boston Generating, LLC
- Brick Power Holding, LLC
- Bridgeport Energy, LLC
- Brooklyn Navy Yard Cogen Partners, LP
- Caithness Long Island, LLC
- Calpine Energy Services, LP
- Castleton Power, LLC
- Conectiv Energy Supply, Inc.
- Conn. Municipal Electric Energy Coop.
- ConocoPhillips Company
- Consolidated Edison Comp. of NY, Inc.
- Constellation Energy Commodities Group
- Dominion Energy Marketing, Inc.
- DTE Carbon, LLC
- Dynegy Marketing and Trade, LLC
- GDF SUEZ Energy Marketing NA, Inc.
- Granite Ridge Energy, LLC
- H.Q. Energy Services (US) Inc.
- Hess Corporation (G)
- Indeck-Corinth Limited Partnership
- Indeck-Oswego Limited Partnership
- Indeck-Yerkes Limited Partnership
- Integrys Energy Services, Inc.
- J-Power USA Development Co., Ltd.
- Koch Supply & Trading, LP
- Lake Road Generating Company, L.P
- Louis Dreyfus Energy Services, LP
- Macquarie Energy, LLC
- 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
- NextEra Energy Power Marketing, LLC
- North American Energy Alliance, LLC
- NRG Power Marketing, LLC
- Old Dominion Electric Cooperative
- ORBEO
- Power Authority of the State of New York
- PPL EnergyPlus, LLC
- PSEG Energy Resources & Trade, LLC
- Public Service Company of New Hampshire
- RBC
- Rochester Gas and Electric Corporation
- Selkirk Cogen Partners, LP
- Sempra Energy Trading, LLC
- Statkraft Markets GmbH
- TAQA Gen X, LLC
- TransCanada Power Marketing, Ltd.
- Verso Paper Corp.
- Vitol Inc.