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**Friday, December 8, 2023**

## **CO<sub>2</sub> Allowances Sold for \$14.88 in 62<sup>nd</sup> RGGI Auction**

*Final Auction of 2023 raises \$411.5 Million for Reinvestment*

NEW YORK — The participating states in the Regional Greenhouse Gas Initiative (RGGI), the nation's first market-based regulatory effort to reduce greenhouse gas (GHG) pollution, today announced the results of their 62<sup>nd</sup> auction of carbon dioxide (CO<sub>2</sub>) allowances.

27,656,000 CO<sub>2</sub> allowances were sold at the auction at a clearing price of \$14.88. This includes an initial offering of 22,090,709 allowances, and 5,565,291 CCR allowances. Bids for the CO<sub>2</sub> allowances ranged from \$2.50 to \$20.00 per allowance. Additional details are available in the [Market Monitor Report for Auction 62](#), which is appended.

The auction generated \$411.5 million for states to reinvest in strategic programs, including energy efficiency, renewable energy, direct bill assistance, and GHG abatement programs.

11.25 million cost containment reserve (CCR) allowances were available for sale. The CCR is a fixed additional supply of allowances that are made available for sale if an auction's interim clearing price exceeds a certain price level (\$14.88 in 2023). Of the 27.7 million allowances sold in Auction 62, 5.6 million were CCR allowances.

In addition, 10.62 million emissions containment reserve (ECR) allowances were available for withholding. The ECR is a designated quantity of allowances to be withheld if an auction's interim clearing price is below an established price level (\$6.87 in 2023). No ECR allowances were withheld in Auction 62.

"The 62<sup>nd</sup> RGGI auction marks a milestone of over \$7 billion generated for reinvestment by the RGGI states," said Katie Dykes, Commissioner of the Connecticut Department of Energy & Environmental Protection and Chair of the RGGI, Inc. Board of Directors. "For the last 15 years, auction proceeds have been invested by each of the RGGI states to further their environmental goals, build a clean energy future, and provide direct support to residents across the region."

"The 62<sup>nd</sup> RGGI auction marks the end of another successful year of RGGI operation for all of the participating states," said Serena McIlwain, Secretary of the Maryland Department of the Environment and Vice Chair of the RGGI, Inc. Board of Directors. "For over fifteen years now, the RGGI states have shown that hard work and bipartisan cooperation can create effective energy policy and deliver real public, economic, and environmental benefits."

Auction 62 Results At-A-Glance	
Auction Date	December 6, 2023
Allowances Initially Offered for Sale	22,090,709
CCR Allowances Available	11,245,778
CCR Allowances Sold	5,565,291
Total Allowances Sold	27,656,000
Ratio of Bids to Supply	2.8x
Clearing Price	\$14.88
Reserve Price	\$2.50
Proceeds from Auction 62	\$411,521,280
Total Cumulative Proceeds (All Auctions)	\$7,160,215,872.41
Number of Bidders in Auction 62	60
Percent of Allowances Purchased by Compliance-Oriented Entities in Auction 62	64%
Percent of Allowances Purchased by Compliance Entities in Auction 62	67%
Percent of Allowances Purchased by Compliance Entities in Auctions 1 - 62	73%

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

### **About the Regional Greenhouse Gas Initiative (RGGI)**

The Eastern states participating in the fifth RGGI control period have implemented the first mandatory market-based regulatory program in the U.S. to reduce greenhouse gas emissions.

RGGI is composed of individual CO<sub>2</sub> budget trading programs in each state, based on each state's independent legal authority. A CO<sub>2</sub> allowance represents a limited authorization to emit one short ton of CO<sub>2</sub>, as issued by a respective state. A regulated power plant must provide CO<sub>2</sub> allowances equal to its emissions for each three-year control period. RGGI's fifth control period began on January 1, 2021 and extends through December 31, 2023. For more information visit [www.rggi.org](http://www.rggi.org).

### **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: [www.rggi.org/rggi-inc/contact](http://www.rggi.org/rggi-inc/contact).

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**RGGI Inc.**



**MARKET MONITOR REPORT  
FOR AUCTION 62**

**Prepared for:**

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

**Prepared By:**

**POTOMAC  
ECONOMICS**

December 8, 2023

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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, Pennsylvania,<sup>1</sup> Rhode Island, Vermont, and Virginia). 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, or referred to in this report.

The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory market-based regulatory initiative 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 (CO<sub>2</sub>) 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.

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<sup>1</sup> While technically a RGGI participating state, Pennsylvania is currently under order from the state's Commonwealth Court prohibiting it from actively participating in RGGI & RGGI Inc. related activities. Final adjudication of these matters is not expected until sometime in 2023.

## **MARKET MONITOR REPORT FOR AUCTION 62**

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 allowance auctions by Enel X. This report summarizes our findings regarding RGGI Auction 62, which was held on December 6, 2023.

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.

Sixty bidders participated in the auction for CO<sub>2</sub> allowances. Bids were submitted to purchase 2.8 times the initial offering of approximately 22.1 million allowances. However, the quantity for which bids were submitted above \$14.88 per ton exceeded the initial offering, so the Cost Containment Reserve (“CRR”) was made available at the CCR Trigger Price of \$14.88 per ton. Over 5.5 million additional allowances were sold, resulting in partial depletion of the CCR for 2023 and a clearing price of \$14.88 per ton in the auction. Compliance-Oriented Entities purchased 64 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 62 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.

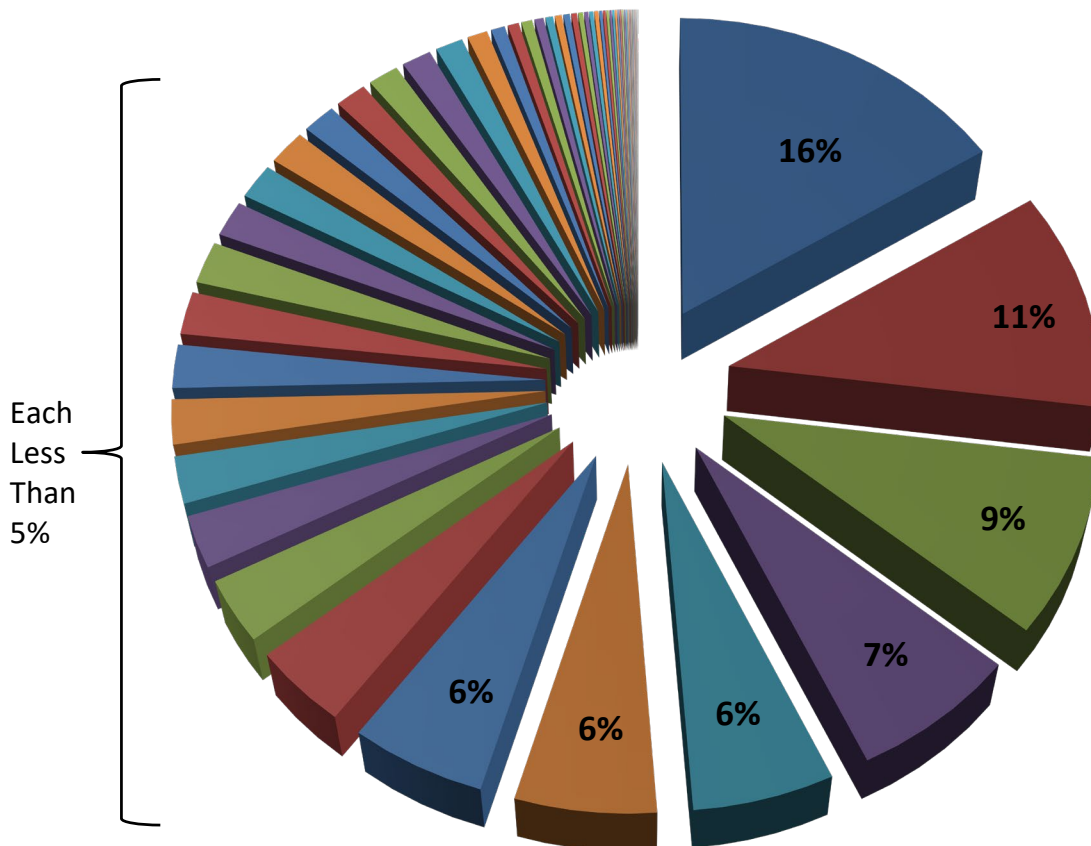
APPENDIX

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 demand for CO<sub>2</sub> allowances is based on the requirement for each compliance entity in the RGGI footprint to obtain one CO<sub>2</sub> allowance for each short ton of CO<sub>2</sub> that it emits from the sale of electricity. The following figure shows the relative shares of projected demand for RGGI allowances by compliance entity in the fifth control period. The largest compliance entity represents 16 percent of the total projected demand for allowances. Nearly 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**

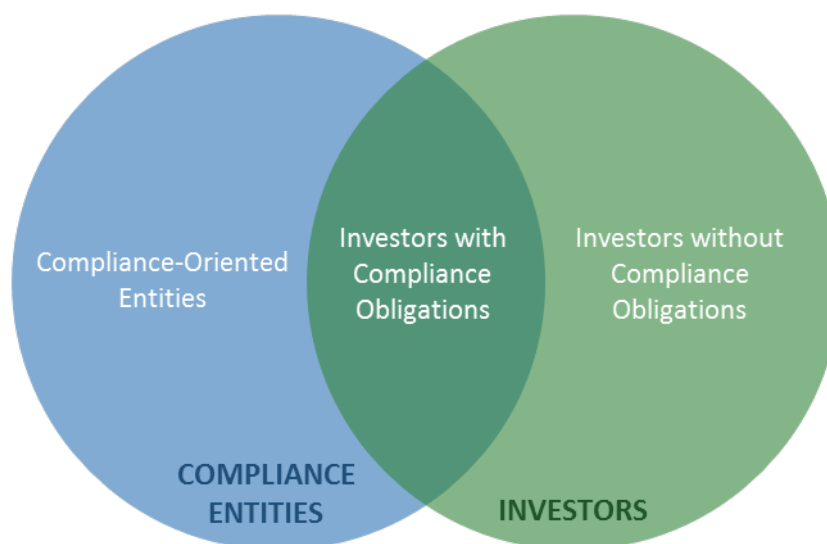


**B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 62**

*Awards were distributed across 54 bidders with seven bidders purchasing one million tons or more and 33 bidders purchasing 200,000 tons or more.*

This report summarizes participation in Auction 62. 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.<sup>2</sup>

<sup>2</sup> 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 in the 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 obligations and their affiliates.<sup>3</sup> 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 62, Compliance Entities purchased 67 percent of the allowances sold. In the first 62 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 62, Compliance-Oriented Entities purchased 62 percent of the allowances sold.

After settlement of allowances sold in Auction 62:

- Sixty-two percent of the allowances in circulation will be held by Compliance-Oriented Entities.
- Sixty-five 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.

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<sup>3</sup> 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.



**Table 1: Quantity of Allowances Awarded by Bidder**

<b>Bidder</b>	<b>Number of Allowances Awarded</b>	<b>Bidder</b>	<b>Number of Allowances Awarded</b>
Bidder 1	2,950,000	Bidder 28	252,000
Bidder 2	2,500,000	Bidder 29	250,000
Bidder 3	2,450,000	Bidder 30	215,000
Bidder 4	2,250,000	Bidder 31	200,000
Bidder 5	2,000,000	Bidder 32	200,000
Bidder 6	1,800,000	Bidder 33	200,000
Bidder 7	1,160,000	Bidder 34	198,000
Bidder 8	950,000	Bidder 35	118,000
Bidder 9	800,000	Bidder 36	90,000
Bidder 10	705,000	Bidder 37	75,000
Bidder 11	700,000	Bidder 38	65,000
Bidder 12	671,000	Bidder 39	60,000
Bidder 13	663,000	Bidder 40	50,000
Bidder 14	600,000	Bidder 41	35,000
Bidder 15	600,000	Bidder 42	35,000
Bidder 16	553,000	Bidder 43	30,000
Bidder 17	500,000	Bidder 44	22,000
Bidder 18	452,000	Bidder 45	20,000
Bidder 19	414,000	Bidder 46	15,000
Bidder 20	403,000	Bidder 47	10,000
Bidder 21	400,000	Bidder 48	9,000
Bidder 22	400,000	Bidder 49	7,000
Bidder 23	335,000	Bidder 50	5,000
Bidder 24	333,000	Bidder 51	3,000
Bidder 25	302,000	Bidder 52	2,000
Bidder 26	300,000	Bidder 53	1,000
Bidder 27	297,000	Bidder 54	1,000

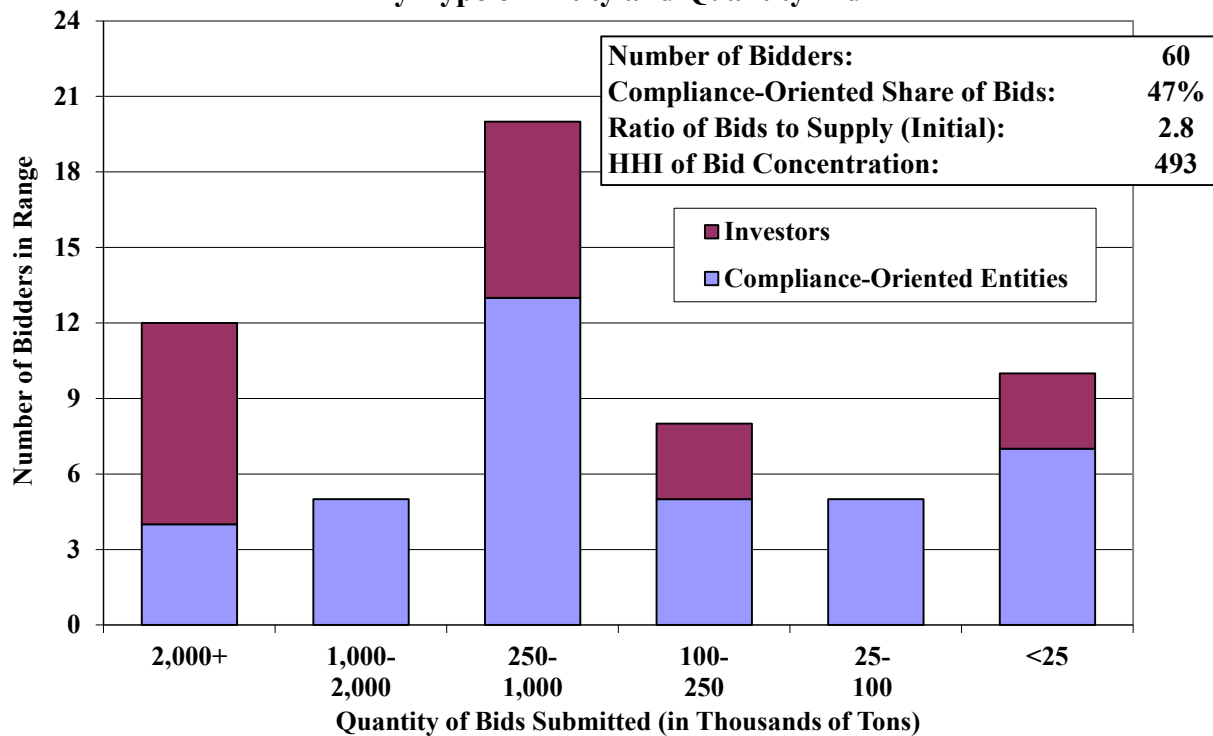
**C. DISPERSION OF BIDS IN AUCTION 62**

*Bids were submitted by 39 Compliance-Oriented Entities and 21 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. Nine Compliance-Oriented Entities and eight Investors submitted bids for a large quantity of allowances (i.e., at least 1 million tons). Overall, Compliance-Oriented Entities accounted for 47 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.8 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 2.2 times the Initial Offering.

The bid quantities were widely distributed among the 60 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), was relatively low at 493. 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).

**Figure 3: Quantity of Bids Submitted by Entity  
By Type of Entity and Quantity Bid**



**D. SUMMARY OF BID PRICES IN AUCTION 62**

*Bids were submitted across a wide range of prices in the auction and the clearing price of \$14.88 was relatively consistent with average bid prices submitted.*

The following table reports several statistics regarding the bid prices for bids submitted in Auction 62. The median and mean bid prices are weighted by the quantity of each bid.

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<b>Bid Prices:</b>	
<b>Minimum</b>	<b>\$2.50</b>
<b>Maximum</b>	<b>\$20.00</b>
<b>Average (Median)</b>	<b>\$14.87</b>
<b>Average (Mean)</b>	<b>\$13.53</b>
<b>Clearing Price:</b>	<b>\$14.88</b>

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**E. NAMES OF POTENTIAL BIDDERS IN AUCTION 62**

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 62, the Participating States are releasing the names of Potential Bidders in Auction 62. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 73 Potential Bidders is as follows:

Anew Environmental, LLC	Kleen Energy Systems, LLC
Appalachian Power Company	KMC Thermo, LLC
Astoria Energy, LLC	LMR Multi-Strategy Master Fund Limited
BP Products North America Inc.	Lucid Clarity Master Fund LP
Braintree Electric Light Department	Macquarie Energy, LLC
Buchanan Generation	Mercuria Energy America, LLC
Caithness Long Island, LLC	Morgan Stanley Capital Group, Inc.
Calpine Energy Services, LP	MV Global Carbon Fund LP
Canadian Imperial Bank of Commerce	National Grid Generation LLC dba National Grid
Carbon Lighthouse Association	New Athens Generating Company, LLC
Citadel Energy Marketing LLC	Newark Energy Center
Clear Sky Enhanced Inflation Carbon Master Fund LP	NextEra Energy Marketing, LLC
CLIFI Carbon LLC	NRG Business Marketing LLC
Cogen Technologies Linden Venture, L.P.	Old Dominion Electric Cooperative
Coloma Strategies LLC	Pacific Summit Energy LLC
Commonwealth Chesapeake Company, LLC	Parkway Generation, LLC
Consolidated Edison Comp. of NY, Inc.	Pinelawn Power, LLC
Constellation Energy Generation, LLC	Pixelle Androscoggin LLC
Cooler, Inc.	Potomac Energy Center, LLC
CPV Maryland, LLC	Power Authority of the State of New York
CPV Shore, LLC	RBC
CPV Towantic, LLC	Rhode Island State Energy Center, LP
CPV Valley, LLC	Rubicon Carbon Services LLC
Cricket Valley Energy Center, LLC	Selkirk Cogen Partners, LP
Delaware City Refining Company, LLC	Shell Energy North America (US), LP
DTE Energy Trading, Inc.	Shoreham Energy, LLC
Dynegy Marketing and Trade, LLC	Statkraft US, LLC
East Coast Environmental, LLC	STX Commodities LLC
Edgewood Energy, LLC	Tenaska Pennsylvania Partners, LLC
Elbow River Marketing LTD.	Tenaska, Inc.
Empire Generating Co., LLC	Trafigura Trading LLC
Equus Power I, LP	Village of Freeport
Global Carbon Opportunity (SPV) Fund LLC	Virginia Electric and Power Company
Hartree Partners, LP	Vitol Inc.
Helix Ravenswood Energy, LLC	Wallingford Energy, LLC
Kcarbon Holdings LLC	World Carbon Fund
Kendall Green Energy LLC	