



Regional Greenhouse Gas Initiative, Inc.
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CO₂ Allowances Sold for \$12.73 in 60th RGGI Auction

Second Auction of 2023 raises \$280 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 60th auction of carbon dioxide (CO₂) allowances.

22,026,639 CO₂ allowances were sold at the auction at a clearing price of \$12.73. Bids for the CO₂ allowances ranged from \$2.50 to \$25.00 per allowance. Additional details are available in the [Market Monitor Report for Auction 60](#), which is appended.

The auction generated \$280.4 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 also 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). No CCR allowances were sold in Auction 60.

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 60.

"For fifteen years, the RGGI states have been working together to successfully reduce carbon pollution, improve public health, and invest in our communities," said Katie Dykes, Commissioner of the Connecticut Department of Energy & Environmental Protection and Chair of the RGGI, Inc. Board of Directors. "And according to the latest RGGI report by the Analysis Group, ['The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States,'](#) released in May 2023, RGGI has not only contributed to significant reduction in carbon emissions, but also generated \$5.7 billion in net economic benefits to the participating states."

"RGGI is a model of robust, market-based policy delivering efficient greenhouse gas emissions reductions," said Terrence Gray, Director of the Rhode Island Department of Environmental Management and Vice Chair of the RGGI, Inc. Board of Directors. "The funds generated by RGGI auctions are reinvested by the participating states to reduce energy costs, create jobs, and spur innovation."

Auction 60 Results At-A-Glance	
Auction Date	June 7, 2023
Allowances Initially Offered for Sale	22,026,639
Total Allowances Sold	22,026,639
Ratio of Bids to Supply	1.9x
Clearing Price	\$12.73
Reserve Price	\$2.50
Proceeds from Auction 60	\$280,399,114.47
Total Cumulative Proceeds (All Auctions)	\$6,444,709,834.11
Number of Bidders in Auction 60	51
Percent of Allowances Purchased by Compliance-Oriented Entities in Auction 60	50%
Percent of Allowances Purchased by Compliance Entities in Auction 60	63%
Percent of Allowances Purchased by Compliance Entities in Auctions 1 - 60	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 CO₂ budget trading programs in each state, based on each state's independent legal authority. A CO₂ allowance represents a limited authorization to emit one short ton of CO₂, as issued by a respective state. A regulated power plant must provide CO₂ 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.

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.

RGGI Inc.



**MARKET MONITOR REPORT
FOR AUCTION 60**

Prepared for:

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

Prepared By:

**POTOMAC
ECONOMICS**

June 9, 2023

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,¹ 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 (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.

¹ 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 60

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 allowance auctions by Enel X. This report summarizes our findings regarding RGGI Auction 60, which was held on June 7, 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.

Fifty-one bidders participated in the auction for CO₂ allowances. Bids were submitted to purchase 1.9 times the initial offering of approximately 22.0 million allowances, resulting in a clearing price of \$12.73 per ton in the auction. The Cost Containment Reserve (“CRR”) Trigger Price is \$14.88 per ton for auctions held in 2023, so no CCR allowances were sold in the auction. The Emissions Containment Reserve (“ECR”) Trigger Price is \$6.87 per ton for auctions held in 2023, so no ECR allowances were withheld from sale in the auction. Compliance-Oriented Entities purchased 50 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 60 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.

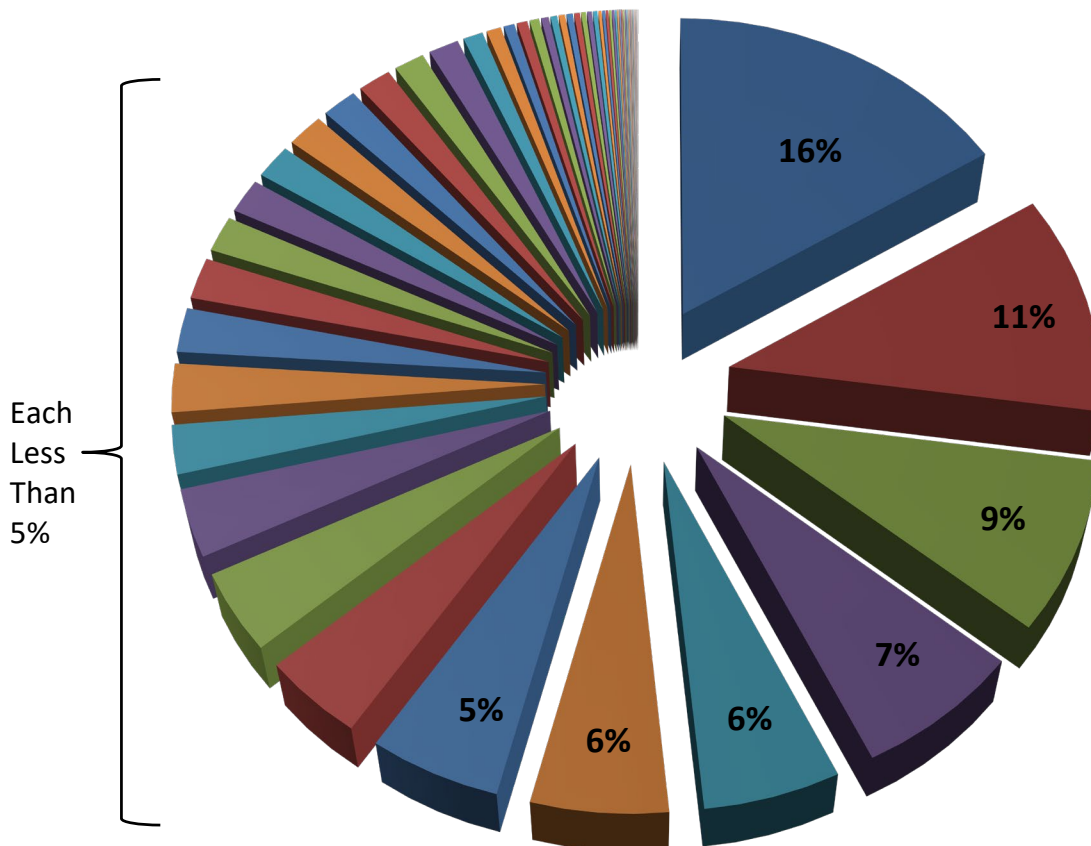
APPENDIX

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 demand for CO₂ allowances is based on the requirement for each compliance entity in the RGGI footprint to obtain one CO₂ allowance for each short ton of CO₂ 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

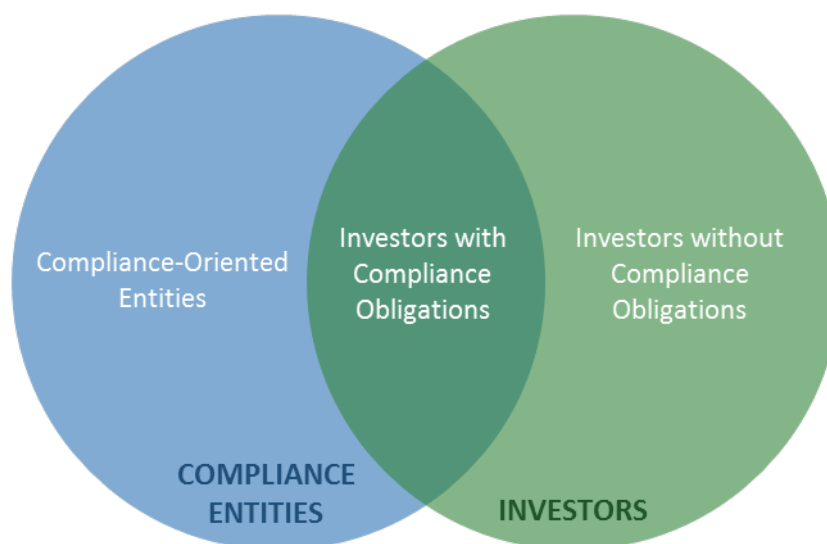


B. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 60

Awards were distributed across 49 bidders with eight bidders purchasing one million tons or more and 21 bidders purchasing 200,000 tons or more.

This report summarizes participation in Auction 60. 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.²

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 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.³ 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 60, Compliance Entities purchased 63 percent of the allowances sold. In the first 60 RGGI auctions, Compliance Entities purchased 73 percent of the allowances sold. In Auction 60, Compliance-Oriented Entities purchased 50 percent of the allowances sold.

After settlement of allowances sold in Auction 60:

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

³ 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

Bidder	Number of Allowances Awarded	Bidder	Number of Allowances Awarded
Bidder 1	3,075,000	Bidder 26	100,000
Bidder 2	2,500,000	Bidder 27	90,000
Bidder 3	2,150,000	Bidder 28	87,000
Bidder 4	2,000,000	Bidder 29	78,000
Bidder 5	1,457,639	Bidder 30	77,000
Bidder 6	1,400,000	Bidder 31	70,000
Bidder 7	1,155,000	Bidder 32	57,000
Bidder 8	1,000,000	Bidder 33	50,000
Bidder 9	800,000	Bidder 34	45,000
Bidder 10	625,000	Bidder 35	38,000
Bidder 11	600,000	Bidder 36	32,000
Bidder 12	562,000	Bidder 37	25,000
Bidder 13	500,000	Bidder 38	20,000
Bidder 14	500,000	Bidder 39	15,000
Bidder 15	425,000	Bidder 40	13,000
Bidder 16	420,000	Bidder 41	11,000
Bidder 17	384,000	Bidder 42	10,000
Bidder 18	370,000	Bidder 43	8,000
Bidder 19	304,000	Bidder 44	8,000
Bidder 20	250,000	Bidder 45	3,000
Bidder 21	200,000	Bidder 46	2,000
Bidder 22	190,000	Bidder 47	1,000
Bidder 23	109,000	Bidder 48	1,000
Bidder 24	108,000	Bidder 49	1,000
Bidder 25	100,000		

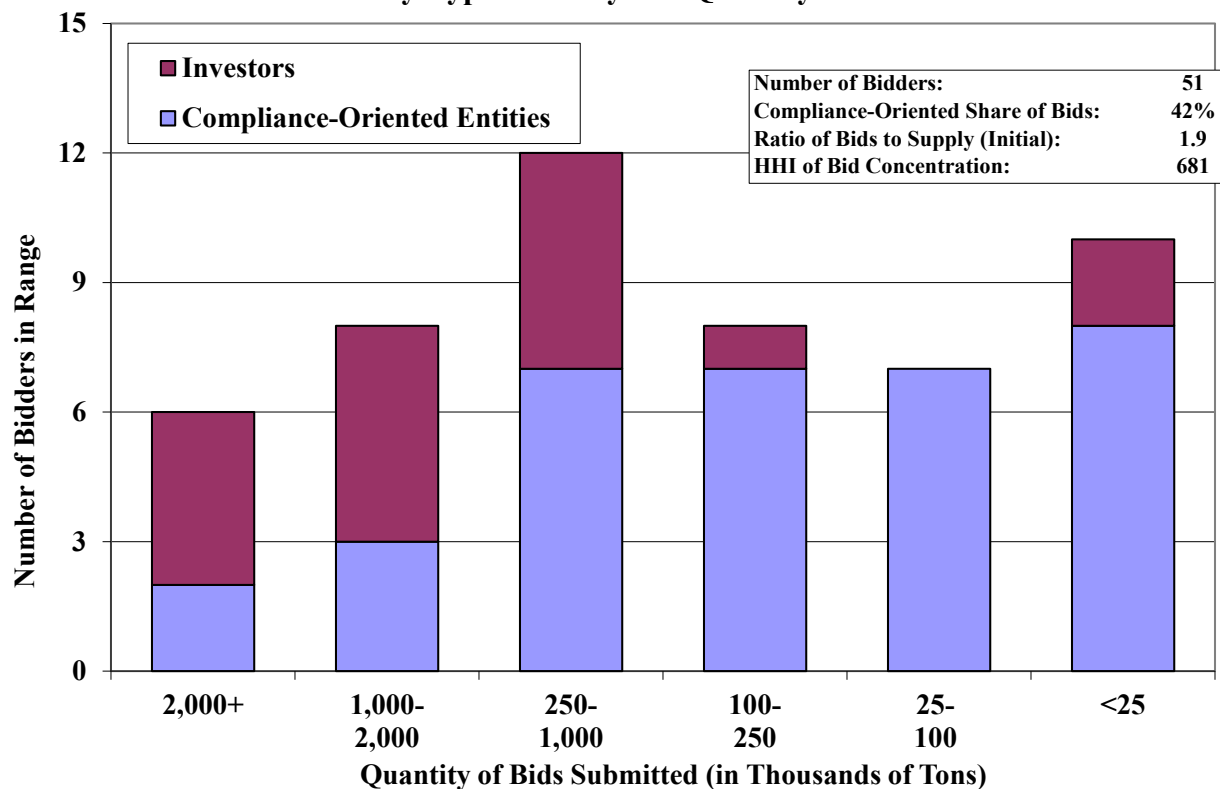
C. DISPERSION OF BIDS IN AUCTION 60

Bids were submitted by 34 Compliance-Oriented Entities and 17 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. Five Compliance-Oriented Entities and nine Investors submitted bids for a large quantity of allowances (i.e., at least 1 million tons). Overall, Compliance-Oriented Entities accounted for 42 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 1.9 times the Initial Offering. In the previous auction, the quantity of allowances for which bids were submitted was 2.4 times the Initial Offering.

The bid quantities were widely distributed among the 51 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), was relatively low at 681. 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 60

Bids were submitted across a wide range of prices in the auction and the clearing price of \$12.73 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 60. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.50
Maximum	\$25.00
Average (Median)	\$12.80
Average (Mean)	\$11.92
Clearing Price:	\$12.73

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 60

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 60, the Participating States are releasing the names of Potential Bidders in Auction 60. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid.*” The list of 74 Potential Bidders is as follows:

Anew Environmental, LLC	Indeck-Corinth Limited Partnership
Astoria Energy, LLC	J. Aron & Company
BP Products North America Inc.	Jamestown Board of Public Utilities
Buchanan Generation	Kcarbon Holdings LLC
Caithness Long Island, LLC	Kendall Green Energy LLC
Calpine Energy Services, LP	Kleen Energy Systems, LLC
Canadian Imperial Bank of Commerce	KMC Thermo, LLC
Carbon Lighthouse Association	Lucid Clarity Master Fund LP
Citadel Energy Marketing LLC	Macquarie Energy, LLC
City of Vineland	Mercuria Energy America, LLC
Clear Sky Enhanced Inflation Carbon Master Fund LP	Morgan Stanley Capital Group, Inc.
Coloma Strategies LLC	MV Global Carbon Fund LP
Commonwealth Chesapeake Company, LLC	National Grid Generation LLC dba National Grid
Consolidated Edison Comp. of NY, Inc.	New Athens Generating Company, LLC
Constellation Energy Generation, LLC	Newark Energy Center
Cooler, Inc.	NextEra Energy Marketing, LLC
CPV Maryland, LLC	NRG Power Marketing LLC
CPV Shore, LLC	Ocean State Power, LLC
CPV Towantic, LLC	Old Dominion Electric Cooperative
CPV Valley, LLC	Pegasus Development Corporation
Cricket Valley Energy Center, LLC	Pinelawn Power, LLC
Delaware City Refining Company, LLC	Potomac Energy Center, LLC
Delaware Municipal Electric Corp.	Power Authority of the State of New York
DTE Energy Trading, Inc.	RBC
Dynegy Marketing and Trade, LLC	Rhode Island State Energy Center, LP
East Coast Environmental, LLC	Selkirk Cogen Partners, LP
Edgewood Energy, LLC	Shell Energy North America (US), LP
EFS Parlin Holdings, LLC	Shoreham Energy, LLC
Elbow River Marketing LTD.	Statkraft US, LLC
Empire Generating Co., LLC	Taunton Municipal Lighting Plant
Energy Center Dover	Tenaska Pennsylvania Partners, LLC
Equus Power I, LP	Tenaska, Inc.
Gen IV Investment Opportunities, LLC	Trafigura Trading LLC
Global Carbon Opportunity (SPV) Fund LLC	Village of Freeport
Hartree Partners, LP	Virginia Electric and Power Company
Hawkeye Energy Greenport	Vitol Inc.
Helix Ravenswood Energy, LLC	Wallingford Energy, LLC