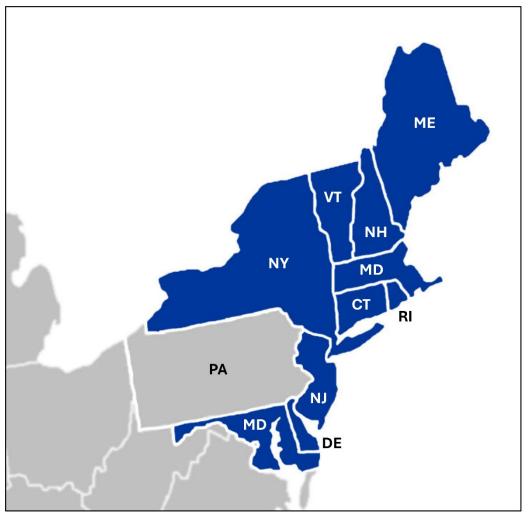
Regional Greenhouse Gas Initiative

Introduction to RGGI Auctions



RGGI States



www.rggi.org

RGGI in Brief

- Eastern states cap and reduce carbon dioxide emissions from the power sector
 - Allowances issued by states distributed primarily through auctions

- Fungible; Bankable; Tradable
- Adjusted Regional cap
 - 69.4 MM-tons in 2024, declining each year for a 30% reduction by 2030
 - CCR: 8.42 million allowances in 2024
 - ECR: 7.81 million allowances in 2024

RGGI in Brief

- RGGI states have distributed 90% of allowances via quarterly allowance auctions
 - Open to all
 - Independent Market Monitor
 - Centralized platform for tracking: RGGI COATS
 - Historic clearing price range: \$1.86 to \$21.03
 - Over 1 billion allowances sold at auction
 - Over \$7 billion in proceeds

Reinvestment of Proceeds

- The RGGI states may reinvest auction proceeds in strategic programs
 - Over \$3.6 billion invested through 2021
 - Billions in consumer energy bill savings
 - Pollution reductions

RGGI Experience: A Triple Set of Benefits



- Environmental Benefits
- Consumer Benefits
- Economic Benefits



RGGI Experience: Environmental Benefits

Significantly reduced power sector CO₂ pollution since program launched

 Half of total power generation in the RGGI states is clean or renewable

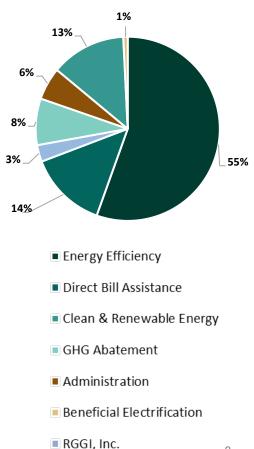
 Independent research shows RGGI is driving public health benefits (Abt Associates) as well as improving children's health (Columbia University)



Reinvestment of Proceeds

- RGGI states reinvest auction proceeds in strategic programs.
 - Through 2021, states reinvested over \$3.6 billion in energy efficiency, clean and renewable energy, direct bill assistance, and GHG abatement programs.
 - These programs have generated billions in consumer energy bill savings as well as additional pollution reductions.

RGGI Investments by Category 2008 - 2021



RGGI Experience: Economic Benefits

Years 2018-2020

- \$669 million in net economic benefit
- 7,874 additional job-years

All-time

- Net economic benefits on the order of \$5.7 billion
- Tens of thousands of additional job-years

Source: Analysis Group, 2023 Report on RGGI Economic Impacts

Tutorial Outline

- Introduction and Overview
- Schedule
- What's New for Auction 65
- Participation Requirements
- Review Process
- Financial Security
- RGGI CO₂ Allowance Tracking
 System Account
- Confidential Information

- Limitation on Communication
- Auction Platform (the "Exchange") Overview
- Bid Limitations

- Cost Containment Reserve and Emissions Containment Reserve Overview and Mechanics
- Auction Examples
- Bid Value Examples



Auction 65

- September 4, 2024 (9:00 AM 12:00 PM ET)
- Auction 65: 15,943,608 CO₂ allowances ("Initial Offering") available for sale from Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont

- Minimum Reserve Price of \$2.56 per CO₂ allowance
- Auction 65 will have only one offering of allowances
- The Cost Containment Reserve mechanism is in effect
 - Auction 65 CCR is 0 CCR allowances
- The Emissions Containment Reserve mechanism is in effect
 - Auction 65 ECR is 7,807,029 ECR allowances



Bidder Preparations

- Auction guidance & materials at https://rggi.org/auctions/auction-materials
- All bidders must be qualified to participate
- Approximately 57 days to provide adequate time to process applications and arrange for financial security
- Question Submission
 - Send questions to: <u>auctionmanager.enelxnorthamerica@enel.com</u>
 - To the extent any relevant questions are not currently addressed in the FAQs, the document will be updated and reposted on Wednesday, July 17, 2024

Dates to Remember

- No later than 5:00 PM ET on Wednesday, July 24, 2024 –
 Qualification Application and/or Intent to Bid due
- No later than 5:00 PM ET on Wednesday, August 28, 2024 –
 Financial security due

.

- Bidder training sessions
 - 3 one-hour-long sessions from 1:00 to 4:00 PM ET on Monday, August 26, 2024
 - 3 one-hour-long sessions from 1:00 to 4:00 PM ET on Tuesday, August 27, 2024

Schedule [1]

Event	Date	Time	
Release of Auction documents:			
Auction Notice	Tuesday, July 9, 2024	No later than 5:00 PM	
Frequently Asked Questions			
RGGI Portal provides access to submit:			
Qualification Application	Tuesday, July 9, 2024	No later than 5:00 PM	
Intent to Bid	Tuesday, July 3, 2024		
Financial Security Information			
Release tutorial	Wednesday, July 10, 2024	10:00 AM	
Update FAQs, as needed	Wednesday, July 17, 2024	5:00 PM	
Auction forms deadline			
Qualification Application	Wednesday, July 24, 2024	No later than 5:00 PM	
• Intent to Bid			
Remediation notification deadline:			
Qualification Application	Wednesday, July 31, 2024	No later than 3:00 PM	
Intent to Bid			
Remediated auction forms deadline	Wednesday, August 14, 2024	No later than 5:00 PM	

¹ All due dates specified in the Auction Notice refer to the date and time on which the item(s) must be received by the Auction Manager.

Schedule [2]

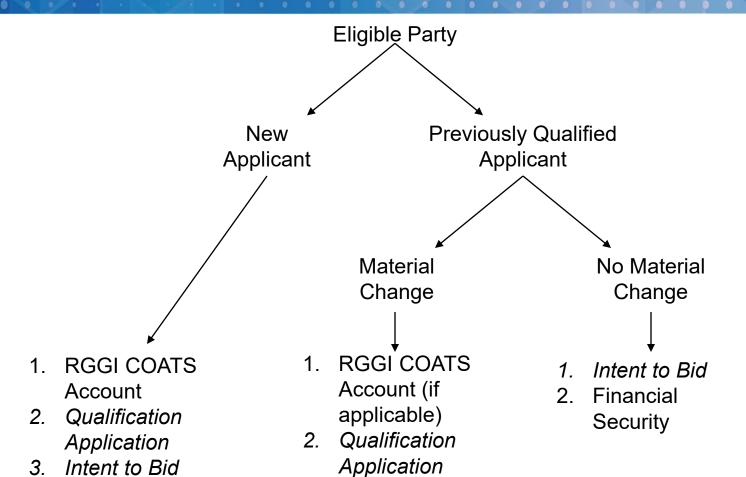
Event	Date	Time
Qualification status sent to Applicants	Tuesday, August 20, 2024	No later than 5:00 PM
Auction Platform training sessions	Monday, August 26, 2024	1:00 PM ET to 4:00 PM
Auction Platform training sessions	Tuesday, August 27, 2024	1:00 PM ET to 4:00 PM
Financial security deadline	Wednesday, August 28, 2024	No later than 5:00 PM
Notification of participation status sent to Applicants	Friday, August 30, 2024	No later than 5:00 PM
Auction 65	Wednesday, September 4, 2024	9:00 AM ET - 12:00 PM
Auction clearing price posted at https://www.rggi.org/ • Directly after, Bidders can view awards on Auction Platform.	Friday, September 6, 2024	10:00 AM
Optional cash settlement deadline	Wednesday, September 11, 2024	No later than 5:00 PM
Unused cash financial security return	Wednesday, September 18, 2024	No later than 5:00 PM
Allowance transfer and confirmation	Thursday, September 19, 2024	No later than 5:00 PM

What's New for Auction 65

- Minimum Reserve Price is \$2.56 per CO₂ allowance
- The Cost Containment Reserve ("CCR") for calendar year 2024 is 8,416,278 CO₂ allowances
 - No CCR allowances are available in Auction 65
- The Emissions Containment Reserve ("ECR") for calendar year
 2024 is 7,807,029 CO₂ allowances
 - All ECR allowances are available in Auction 65
- The CCR Trigger Price for 2024 is \$15.92 per CO₂ allowance
- The ECR Trigger Price for 2024 is \$7.35 per CO₂ allowance

Participation Requirements

Financial Security



Intent to Bid

Financial Security

3.



New Applicants

- Open general account or retrieve compliance account number (if created) in the RGGI CO₂ Allowance Tracking System (RGGI COATS)
- Submit the Qualification Application through the RGGI Portal
- Submit the Intent to Bid through the RGGI Portal
- Meet the financial security requirements

Previously Qualified Applicant [1]

- Previously qualified applicant with a material change to information previously submitted becomes a new applicant
- Update and submit a new Qualification Application and Intent to Bid through the RGGI Portal
- Meet financial security requirements
- Material changes:
 - General Information: Any change constitutes a material change, except Street Address, City, State/Province," Postal Code, Country, Years in Business, and URL for Applicant's Web Site

Previously Qualified Applicant [2]

- Material changes (continued):
 - Authorized Auction Representative(s): Only a change to the Authorized Auction Representative(s) First Name and/or Last Name constitutes a material change
 - COATS Account: Any change constitutes a material change
 - Corporate Associations: Any change constitutes a material change
 - Bidding Associations: Any change constitutes a material change
 - Attestations: Any change constitutes a material change
- For all other fields, please update the forms as needed

Qualification Application Submission Instructions

- The Qualification Application is contained in the RGGI Portal on the Auction Platform (the "Exchange")
 - All sections of the Qualification Application are required for all new applicants or previously qualified applicants with a material change
 - The RGGI Portal and Qualification Application provides:
 - Landing page with messaging on next steps
 - Auto-populated from the new applicant registration form or from a previously qualified applicant's information
 - Auto save functionality
- Must be submitted no later than 5:00 PM ET on Wednesday, July 24, 2024
 - Submission window automatically closes at the deadline



Intent to Bid Submission Instructions

- The Intent to Bid is also contained in the RGGI Portal on the Auction Platform
 - All sections of the online Intent to Bid are required for all applicants
- Must be submitted no later than 5:00 PM ET on Wednesday, July 24, 2024
 - Submission window automatically closes at the deadline

Qualification Application Review and Determination [1]

- Confirmations will be sent out via email immediately after successful submission
- Initial Review
 - Failure to provide any information required will result in the Qualification Application being deemed incomplete or otherwise deficient
 - Remediation notifications via email will be sent no later than 3:00
 PM ET on Wednesday, July 31, 2024
- Remediation
 - Failure to remediate may result in qualification denial
 - Additional information must be provided no later than 5:00 PM ET on Wednesday, August 14, 2024



Qualification Application Review and Determination [2]

- State Review
 - Each state will review each Applicant's Qualification Application and make a determination to grant or deny qualification to each Applicant
- Qualification Notification
 - Each Applicant will be notified via email no later than 5:00 PM ET on Tuesday, August 20, 2024 as to whether its qualification has been granted or denied

Intent to Bid Review and Determination [1]

- Confirmations will be sent out via email immediately after successful submission
- Initial Review
 - Failure to provide any information required will result in the Intent to Bid being declared incomplete
 - Failure to submit a Qualification Application due to a material change will result in the Qualification Application being deemed incomplete or otherwise deficient
 - Remediation notifications via email will be sent no later than 3:00
 PM ET on Wednesday, July 31, 2024

Intent to Bid Review and Determination [2]

Remediation

- Failure to remediate may result in Auction 65 participation or qualification denial
- Additional information must be provided no later than 5:00 PM ET on Wednesday, August 14, 2024

State Review

- Each state will review each Intent to Bid and make a determination as to the completeness of each Applicant's Intent to Bid
- Completeness Notification
 - Each Applicant will be notified via email no later than 5:00 PM ET on Tuesday, August 20, 2024 as to whether its *Intent to Bid* has been determined to be complete or not

Financial Security [1]

- Only three acceptable forms of financial security: (1) bond (2) cash in the form of a wire transfer or certified funds, (3) an Irrevocable Letter of Credit (ILOC)
- Financial security, in United States dollars (USD), must be received no later than 5:00 PM ET on Wednesday, August 28, 2024
- The amount of financial security will be used to set a bidding limitation
- Appendices are available in Word format at the auction website: https://www.rggi.org/auctions/auction-materials
 - Form of bond is provided in Appendix A and form of ILOC is provided in Appendix B
- No material changes will be permitted to the form of bond or ILOC
 - To the extent the submitted bond or ILOC differs from the forms provided, the Potential Bidder assumes the risk that the bond or ILOC may be rejected

Financial Security [2]

- Applicants must provide information regarding their financial security through the RGGI Portal
 - Please refer to the RGGI Portal Training and Support tutorial for information on how to submit the financial security information.
- All unused cash balances will be returned via Automated Clearing House ("ACH") credit no later than Wednesday, September 18, 2024
- Each winning bidder who submits an ILOC or bond can settle its transaction with cash via a wire transfer
 - Wire transfers must be received no later than 5:00 PM ET on Wednesday,
 September 11, 2024
 - Failure to settle a transaction in this manner will result in a sight draft against the bond or ILOC on Thursday, September 12, 2024

RGGI CO₂ Allowance Tracking System Account [1]

- Applicant's RGGI CO₂ Allowance Tracking System (RGGI COATS)
 account is where awarded CO₂ allowances will be transferred.
- Applicant must have active RGGI COATS account to submit a Qualification Application.
- Either a "general" or "compliance" account may be registered. The majority of affected sources in the states participating in the RGGI control period have been approved by their respective state agencies for compliance accounts. An applicant without a compliance account may create and register a general account for the auction.

RGGI CO₂ Allowance Tracking System Account [2]

- If not already a RGGI COATS user, applicants are encouraged to start the user application process immediately to ensure establishment of a RGGI COATS general account before submitting CO₂ Allowance Auction Qualification Application – Version 3.3
 - See https://rggi-coats.org for details including the RGGI COATS
 User's Guide at:
 https://rggicoats.org/eats/rggi/image/help/rggi/RGGIGettingStartedguide.pdf
 - The User's Guide may also be accessed by selecting the User's Guide sub-menu option under the Reference menu option.

Registering to Use RGGI COATS

- In order to create a general account or to access an existing account in RGGI COATS, you must first register to be a user.
- A user account is assigned to one natural person and may not be shared. Each natural person who will access a RGGI COATS general account and/or compliance account as an Authorized Account Representative (AAR), Alternate AAR or electronic submission agent requires a personal user account (login name and password).
- Individuals who did not receive an email invitation to register may request a RGGI COATS user account via https://rggi-coats.org.

RGGI CO2 ALLOWANCE TRACKING SYSTEM

RGGI CO2 BUDGET TRADING PROGRAMS

Reference

Home

The RGGI CO₂ Allowance Tracking System (RGGI COATS) is the platform that records and tracks data for each state's CO₂ Budget Trading Program.

Public Reports

RGGI COATS enables the public to view, customize, and download reports of RGGI program data and CO₂ allowance market activity.

Access reports here:

Special Approvals

Offset Projects

Accounts

Account Representatives

Sources

Owner/Operator

Transaction Price Report

Quarterly Emissions

Annual Emissions

Control Period Emissions

Summary Level Emissions

RGGI COATS Accounts

RGGI COATS enables market participants to receive and transfer ${\rm CO_2}$ allowances, register offset projects, and submit offset project Consistency Applications and Monitoring and Verification Reports.

Registered users login below.

A login is required only for authorized account representatives (AARs), alternate account representatives (AAARs), or electronic submission agents to access compliance or general accounts.

Username *

Login

Register to use RGGI COATS Click here to register to become a RGGI COATS user.

Forgot your RGGI COATS username?



RGGI CO2 ALLOWANCE TRACKING SYSTEM

RGGI CO2 BUDGET TRADING PROGRAMS

Reports Reference

Home

Help

Registration Information for Access to COATS

Users who are representatives of RGGI COATS accounts and need to manage these accounts through the COATS system must complete the registration below to access the system. Registration is not required for members of the public who wish to access public reports and do not require ability to log in to the COATS system. Fields marked by * are required.

Step 1: Enter Information

Title (Mr./Ms.)		*	
First Name *			
Last Name *			
Middle Initial			
Phone Number *			
Fax Number *			Enter required information in
Company Name		/	the appropriate fields.
Address *		/	
Address		/	
City *		/	
Country *		<u> </u>	
State/Province	•		
Postal Code *			
Reason for requesting a login *		•	
			36

Bottom of Registration Page

Important: Enter a valid email address to receive notification of your completed registration as a user. Valid COATS passwords must be a minimum of seven characters in length and contain the following: at least one alphabetic character, and at least one numeric and one special characters.

Email Address *	
Re-enter email address *	
Email Salutation (e.g. Bill Smith,) *	
Create your COATS username *	
Create your password *	
Re-enter password *	
Back Next	

Complete the remaining required fields (indicated by an *) and then click Next.

Registering to use RGGI COATS (continued)

- Agree to the terms page displayed after clicking 'Next'.
- Print, sign in blue ink, and submit the User Login Request Form to CSRA:

CSRA International, Inc. 650 Peter Jefferson Pkwy Suite 300 Charlottesville, VA 22911

 Once CSRA has processed the User Login Request Form, you will receive notice at the email address you registered that you can access the system.

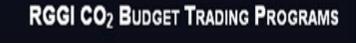
Creating a General Account

- Log into RGGI COATS via https://rggi-coats.org
- Select the Create General Account option
- The user creating the general account must be the AAR

Create General Account sub-menu, cooperative effort by participating states to reduce

INDUSTRY USER : My Profile : Contact Us RGGI CO₂ ALLOWANCE TRACKING SYSTEM RGGI CO2 BUDGET TRADING PROGRAMS **Allowance Transactions** Sources Reports Reference Create General Move your mouse pointer over the Accounts menu link to display the The Regional Greenhouse Gas Initiative (RGGI) is a

RGGI CO₂ ALLOWANCE TRACKING SYSTEM



Accounts	Sources	Allowance Transactions	Reports	Reference
Accounts	Sources	Allowance Transactions	Keports	Reference

Help

Create Account: Enter Account Details

Create General Account

Create the name of your account as the first step in creating a general account. Then, click the Next button to continue.

Account Name *	Enter an Account Name
Account Type * General V	
Next	



RGGI CO2 ALLOWANCE TRACKING SYSTEM

RGGI CO2 BUDGET TRADING PROGRAMS

Accounts Sources Allowance Transactions Reports Reference

Help

Create Account: Designate Account Ownership

To create a General Account, any and all organization(s) with ownership interest in the allowances in the account must be disclosed. Select ownership organization(s) from the list below and move it from the "Candidate Organizations" box on the left to the "Selected Organizations" box on the right using the arrow (">") buttons between the boxes. If the organization you wish to select is not found within this list, click the "Add" button to create a new ownership organization.

Account Name ABC Manufacturing General Account
Account Type General
Authorized Account Representative User, Industry

Select organizations from the list



Back Add Next

If an organization is not in the list, click the Add button to create a new organization



INDUSTRY USER : My Profile : Contact Us : Home : Log Out

RGGI CO₂ ALLOWANCE TRACKING SYSTEM

RGGI CO₂ BUDGET TRADING PROGRAMS

Accounts Allowance Transactions Reports Sources Reference

Help

Create Account: Select Alternate Authorized Account Representative

Select the optional Alternate Authorized Account Representative ("AAAR"), if any, for the General Account using the radio buttons in the grid below. The grid is initially blank and you must first enter filter criteria in the box to the right to display a specific AAAR or list of AAARs. The designated AAAR will have the same system permissions for the General Account as the AAR. Note that the grid can be sorted by clicking on the grid column

Use the filter to find a person

Filter Criteria ▼ First Name **Last Name** Organization Name Filter Clear

Account Name ABC Manufacturing General Account

Account Type General

Authorized Account Representative User, Industry

Organizations

riganizations				
Owner/Operator	Owner/Operator Role			
ABC Manufacturing	Owner			

The AAAR grid is blank by default

Alternate Authorized Account Representative

Organization Name Name

No people match your current filter criteria entered in the box at the top right of the screen.

Add

If you cannot find a person using the filter, click the Add button to add a new user

RGGI CO2 ALLOWANCE TRACKING SYSTEM

Accounts Sources Allowance Transactions Penorts Deference

Accounts Sources Allowance Transactions Reports Reference

Help

RGGI CO₂ BUDGET TRADING PROGRAMS

Create Account: Review and Submit

Account Name ABC Manufacturing General Account
Account Type General
Authorized Account Representative User, Industry
Alternate Authorized Account Representative User II, Industry

Organizations

Owner/Operator	Owner/Operator Role
ABC Manufacturing	Owner

Certification Statement

I certify that I was selected as the CO₂ authorized account representative or the CO₂ alternate authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CO₂ allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO₂ Budget Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Department or its agent ¹ or a court regarding the general account.

Entering your password below acknowledges that you have read and agreed to the above certification.

Enter password *

Back Submit

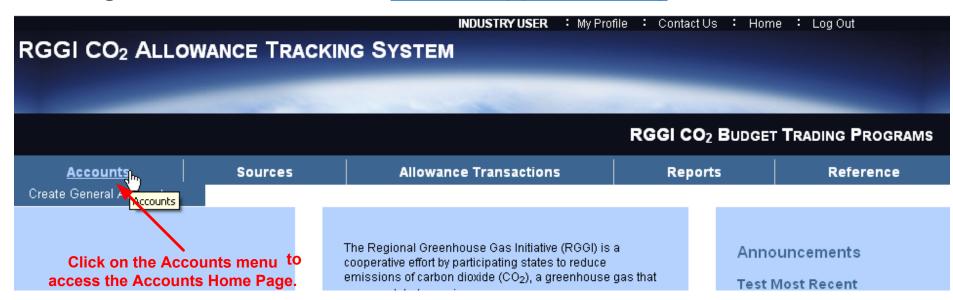
If the information on the page is correct, enter your COATS system password, and click the Submit button



INDUSTRY USER : My Profile : Contact Us : Home : Log Out RGGI CO₂ ALLOWANCE TRACKING SYSTEM RGGI CO2 BUDGET TRADING PROGRAMS **Allowance Transactions** Reports Reference Accounts Sources Help Print Account Details Account data saved. The system messages confirm the Account people relationship data saved. account creation is complete. Account people relationship data saved. Account owner/operator relationship saved. Account Number GN10875 Account Name ABC Manufacturing Ceneral Account Account Type General Status Open General Account Number to register for auction. Opened on 04/13/2009 Closed on Allowances can be Transferred Yes Allowances can be Acquired All States State Save Available Allowances **Account Representative Details** Electronic Submission Agents Owner Details Account Representative Details Representative Type Name **Begin Date** 0 Authorized Account Representative User, Industry 04/13/2009 User II, Industry Alternate Authorized Account Representative 04/13/2009 Change End Alternate | Show History

Accessing a Compliance Account

- Verify role as the source RGGI representative in EPA's CBS via https://camd.epa.gov/cbs as RGGI COATS mirrors the relationship for RGGI compliance accounts.
- Log into RGGI COATS via https://rggi-coats.org



Filter Clear

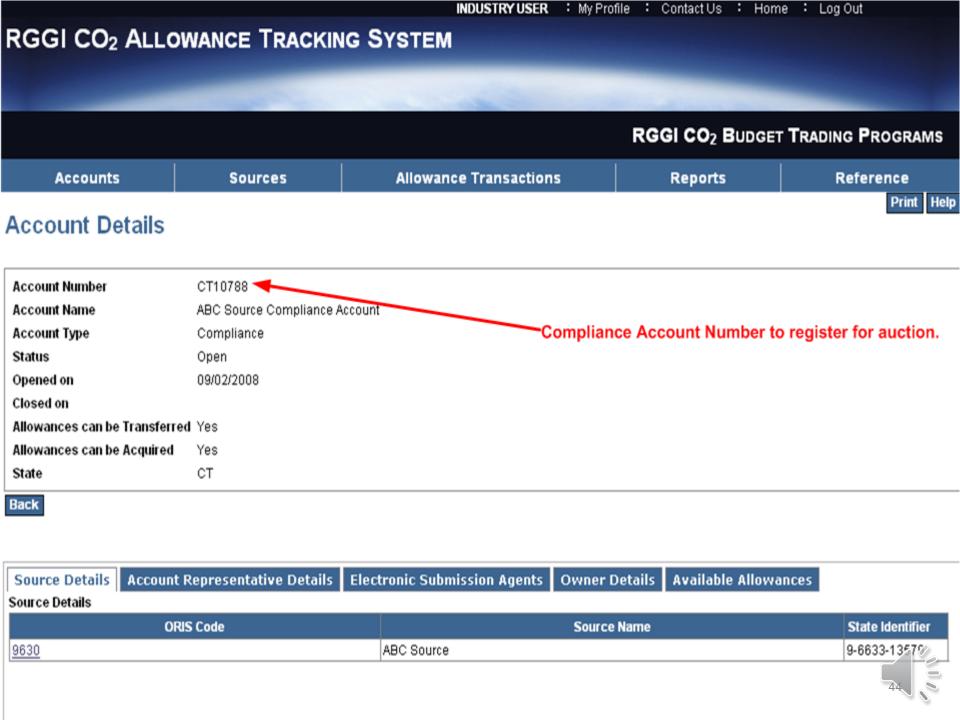
RGGI CO2 ALLOWANCE TRACKING SYSTEM

RGGI CO2 BUDGET TRADING PROGRAMS

Accounts	Sources	Allowance Transactions	Reports	Reference
				Print Help
Accounts		Fit	ter Criteria ▼	
011-1	at to the owner of the description of the second	1	ccount Number	
details. Use the filter criteria to	ick on the Account Number link in the grid below to view account etails. Use the filter criteria to the right to find a specific account or et of accounts more easily. Click the Export Data button under the id to export the grid data to Excel (.csv). Also, note that the grid can e sorted by clicking on the grid column headers (first click is			
grid to export the grid data to Ex				
be sorted by clicking on the grid ascending, second click is des	-	A	uthorized Account Representati	ve
		Si	tate	~
		Si	tatus	~
		A	ccount Type	~

Account Number ▲	State	Account Name	ORIS Code	Authorized Account Representative	Account Type	Status
CT10766	CT	819 Source Compliance Account	8190	Reilly, Megan	Compliance	Open
CT10774	CT	Aiya Source Compliance Account	8642	Reilly, Megan	Compliance	Open
CT10788	CT	ABC Source Compliance Account	9630	Reilly, Megan	Compliance	Open

Click on the hyperlinked Account Number to access the Compliance Account Details.



Confidential Information

- Applicant may not publicly release confidential information
 - Confidential information includes, but is not limited to, qualification status, bidding strategy, bid price and/or bid quantity information, and information on financial security to the extent such information is not generally available to the public

Limitation on Communication

 After the relevant Qualification Application filing deadline, an Applicant may not communicate with any other Applicant or party about the RGGI auction that has not been disclosed in its qualification application, except as requested by the Auction Manager to remediate a Qualification Application

Auction Overview [1]

- Electronic, internet-based auction platform
- Uniform-price, sealed-bid (single-round) auction format
- Bids ranked by their bid price from highest to lowest
 - Cumulative demand noted at each bid price
- Auction includes a Cost Containment Reserve ("CCR")
 - Auction 65 CCR is 0 CO₂ allowances
- Auction includes an Emissions Containment Reserve ("ECR") for
 - Auction 65 ECR is 7,807,029 CO₂ allowances
- Auction Notice provides clear guidance on determining the interim and final clearing price and allowance awards



Auction Overview [2]

- All tied marginal bids will be resolved by a random tiebreaking process
- All bids that exist in the Auction Platform via user submission at the close of the auction will be considered binding offers and eligible for award
 - Contingent bids are not permitted
- Each bid price must be submitted in dollars and whole cents
- Each bid quantity must be submitted in multiples of 1,000
- Bidders can submit an unlimited number of bids; however, only one bid may be submitted for any given bid price
- Bidders can cancel or change their bids at their discretion until the bidding window closes



Bid Limitations [1]

- Reserve Price
 - The reserve price is \$2.56 per CO₂ allowance
- Financial Security
 - The value of a bidder's bids cannot exceed the amount of a bidder's financial security
 - The value of a bidder's bids is the maximum value the bidder would be liable to pay in a uniform-price auction format
 - This is the same approach utilized since Auction 2

Bid Limitations [2]

- Quantity of CO₂ Allowances
 - The maximum number of CO₂ allowances that an entity (i.e., an individual person, or an organization and its affiliates and/or agents), may bid for in a single auction is 25% of the CO₂ allowances offered for sale ("Initial Offering")
 - Applicants are associated if they have ties that could allow them to act in concert or that could prevent them from competing actively against each other in an auction
 - There is no prohibition against associations among bidders; however, they must be disclosed properly

Bid Limitations [3]

- Quantity of CO₂ Allowances (cont.)
 - Corporate Associations
 - See Auction Notice for corporate association definition
 - Bidding Associations
 - Bidding associations only relate to CO₂ allowances offered for sale in a RGGI auction
 - See Auction Notice for bidding association definition
- All bid limitations are evaluated at the time of submittal
- The Auction Platform will not allow bids that violate any bid limitation to be submitted



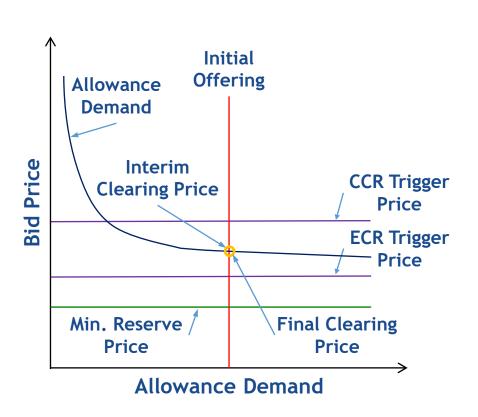
Cost Containment Reserve Overview and Mechanics

- The CCR is designed to moderate the price of CO₂ allowances
 - The CCR contains a number of CO₂ allowances that, under certain circumstances, will be offered for sale
- Once the pool of CO₂ allowances available in the CCR is exhausted, no CCR Allowances will be available for the remainder of that calendar year
- The CCR trigger price ("CCR Trigger Price") for Auction 65 is \$15.92 per CO₂ allowance

Emission Containment Reserve Overview and Mechanics

- The ECR is designed to support the price of CO₂ allowances
 - The ECR represents a budget (i.e., fixed number) of ECR allowances which, under certain circumstances, can be withheld from the Initial Offering
- Once the limit of ECR allowances available for withholding is reached, no allowances can be withheld for the remainder of that calendar year
- The ECR trigger price ("ECR Trigger Price") for Auction 65 is \$7.35 per CO₂ allowance

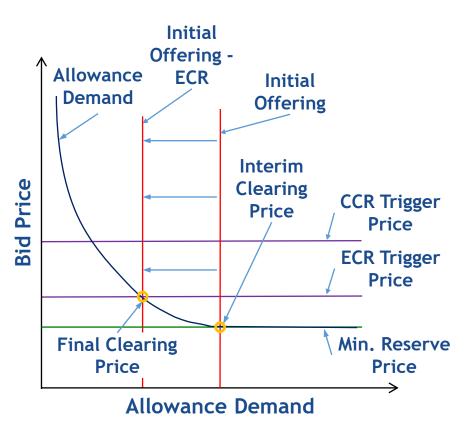
Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [1]



Scenario No. 1 – Total Demand > Initial Offering, ECR & CCR are not Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Bid price of the marginal bid or bids
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price > ECR Trigger Price
 - Interim Clearing Price < CCR Trigger Price
 - No ECR allowances are withheld & no CCR allowances are released in this scenario
 - Final Clearing Price = Interim Clearing Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices > Final Clearing Price
 - Tie breaker may apply for marginal bids with bid prices = Final Clearing Price

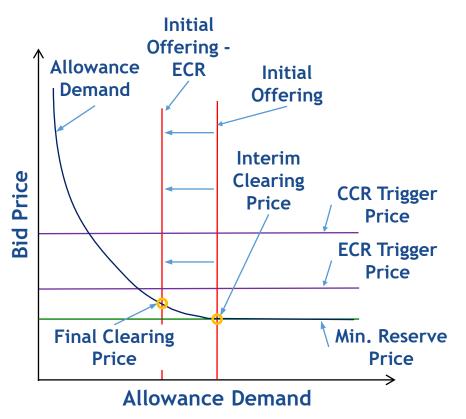
Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [2]



Scenario No. 2a – Total Demand ≤ Initial Offering, ECR Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Minimum Reserve Price
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price < ECR Trigger Price
 - In this scenario, ECR Allowances are withheld until Final Clearing Price = ECR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices ≥ Final Clearing Price

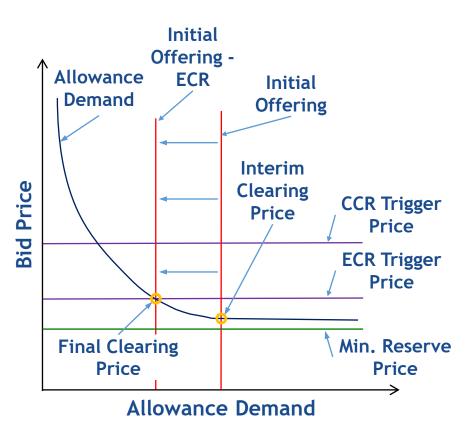
Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [3]



Scenario No. 2b - Total Demand ≤ Initial Offering

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Minimum Reserve Price
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price < ECR Trigger Price
 - In this scenario, ECR Allowances are withheld until ECR withholding limit is reached
 - Final Clearing Price = Bid price of the marginal bid or bids and is < ECR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices > Final Clearing Price
 - Tie breaker may apply for marginal bids with bid prices = Final Clearing Price

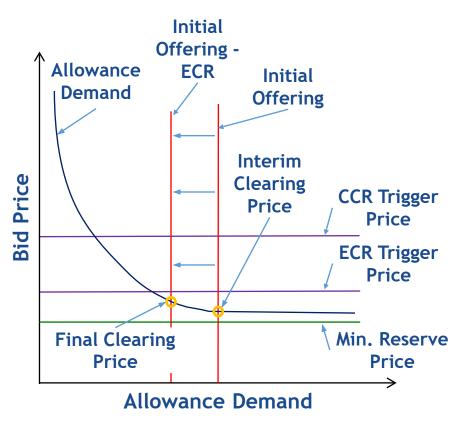
Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [4]



Scenario No. 3a – Total Demand > Initial Offering, ECR is Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Bid price of the marginal bid or bids
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price < ECR Trigger Price
 - In this scenario, ECR Allowances are withheld until Final Clearing Price = ECR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices ≥
 Final Clearing Price

Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [5]

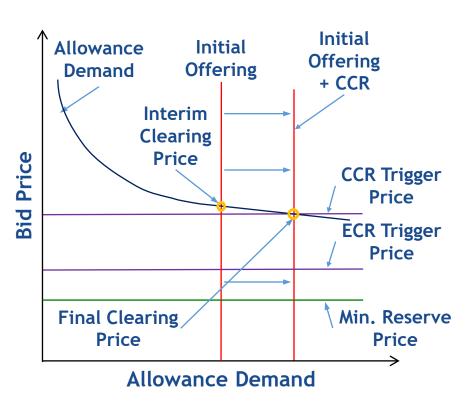


Scenario No. 3b – Total Demand > Initial Offering, ECR is Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Bid price of the marginal bid or bids
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price < ECR Trigger Price
 - In this scenario, ECR Allowances are withheld until ECR withholding limit is reached
 - Final Clearing Price = Bid price of the marginal bid or bids and is < ECR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices > Final Clearing Price
 - Tie breaker may apply for marginal bids with bid prices = Final Clearing Price



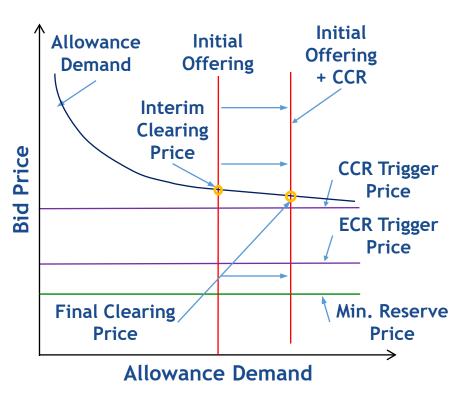
Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [6]



Scenario No. 4a – Total Demand > Initial Offering, CCR is Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Bid price of the marginal bid or bids
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price > CCR Triger Price
 - In this scenario, CCR allowances are released until Final Clearing Price = CCR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices ≥
 Final Clearing Price

Mechanics of the ECR & CCR: Clearing Price and Allowance Awards [7]



Scenario No. 4b – Total Demand > Initial Offering, CCR is Triggered

- Step 1: The Interim Clearing Price
 - Interim Clearing Price = Bid price of the marginal bid or bids
- Step 2: Triggering the ECR or CCR and the Final Clearing Price
 - Interim Clearing Price > CCR Trigger Price
 - In this scenario, CCR allowances are released until CCR is exhausted
 - Final Clearing Price = Bid price of the marginal bid or bids and is > CCR Trigger Price
- Step 3: CO₂ Allowance Awards
 - Allowances awarded to bids with bid prices > Final Clearing Price
 - Tie breaker may apply for bids with bid prices = Final Clearing Price



Auction Format Example No. 1

- Sample auction for 100,000 CO₂ allowances
- All bids are ranked by bid price from highest to lowest
 - Cumulative demand is noted at each bid
- Awards made until supply of CO₂ allowances is exhausted, which is Bidder B's bid for 17,000 CO₂ allowances at \$7.40

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand
Bidder E	\$8.00	21,000	21,000
Bidder A	\$7.95	18,000	39,000
Bidder A	\$7.80	23,000	62,000
Bidder D	\$7.70	21,000	83,000
Bidder B	\$7.40	17,000	100,000
Bidder E	\$7.10	12,000	112,000
Bidder C	\$6.85	10,000	122,000
Bidder E	\$6.80	10,000	132,000
Bidder B	\$6.75	15,000	147,000
Bidder C	\$6.25	20,000	167,000
Bidder A	\$6.20	25,000	192,000
Bidder C	\$6.00	22,000	214,000
Bidder D	\$5.10	10,000	224,000
Bidder A	\$5.05	13,000	237,000

 Clearing price is the bid price after the marginal bid, or \$7.10 per CO₂ allowance



Auction Format Example No. 2

- Sample auction for 100,000 CO₂ allowances
- Bidder E's, D's, A's, & B's bids at \$6.75 cause cumulative demand to exceed supply
 - Clearing price is the bid price of the tied marginal bids, or \$6.75
- Tied marginal bids are broken by a random process

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand	Random Number
Bidder E	\$8.00	13,000	13,000	
Bidder A	\$7.50	6,000	19,000	
Bidder B	\$7.10	8,000	27,000	
Bidder D	\$7.05	14,000	41,000	
Bidder E	\$7.00	9,000	50,000	
Bidder A	\$6.95	11,000	61,000	
Bidder C	\$6.85	18,000	79,000	
Bidder E	\$6.75	10,000	89,000	3
Bidder D	\$6.75	5,000	94,000	1
Bidder A	\$6.75	15,000	109,000	2
Bidder B	\$6.75	10,000	119,000	4
Bidder A	\$6.25	30,000	149,000	
Bidder C	\$6.00	40,000	189,000	
Bidder E	\$5.85	35,000	224,000	

Allowances
 awarded to each
 tied bidder in
 increasing order
 of their random
 number



Auction Format Example No. 3 [1

- Sample auction for 100,000 CO₂ allowances with an ECR of 50,000 allowances
- The ECR trigger price is \$6.00 per CO₂ allowance

Step 1: The Interim Clearing Price

Bidder A's bid causes cumulative demand to exceed supply

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand	
Bidder E	\$7.00	8,000	8,000	
Bidder A	\$6.95	11,000	19,000	
Bidder A	\$6.80	9,000	28,000	
Bidder D	\$6.70	11,000	39,000	
Bidder B	\$6.50	13,000	52,000	Final
Bidder E	\$6.00	12,000	64,000	< Clearing
Bidder C	\$5.85	8,000	72,000	Price
Bidder E	\$5.80	9,000	81,000	
Bidder B	\$5.75	11,000	92,000	
Bidder C	\$5.25	8,000	100,000	Interim
Bidder A	\$5.05	12,000	112,000	< Clearing
Bidder C	\$5.00	40,000	152,000	Price
Bidder D	\$4.25	16,000	168,000	
Bidder A	\$4.15	13,000	181,000	

Interim clearing price is the bid price of the marginal bid or bids



Auction Format Example No. 3 [2]

Step 2: Triggering the ECR and the Final Clearing Price

- Since the interim clearing price is below the ECR trigger price,
 ECR Allowances are withheld
 - 58,000 ECR allowances are withheld from the Initial Offering

Step 3: CO₂ Allowance Awards

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand	
Bidder E	\$7.00	8,000	8,000	
Bidder A	\$6.95	11,000	19,000	
Bidder A	\$6.80	9,000	28,000	
Bidder D	\$6.70	11,000	39,000	
Bidder B	\$6.50	13,000	52,000	Final
Bidder E	\$6.00	12,000	64,000	< Clearing
Bidder C	\$5.85	8,000	72,000	Price
Bidder E	\$5.80	9,000	81,000	
Bidder B	\$5.75	11,000	92,000	
Bidder C	\$5.25	8,000	100,000	Interim
Bidder A	\$5.05	12,000	112,000	< Clearing
Bidder C	\$5.00	40,000	152,000	Price
Bidder D	\$4.25	16,000	168,000	
Bidder A	\$4.15	13,000	181,000	

Allowances are awarded to all bids with a bid price greater than or equal to the final clearing price

Auction Format Example No. 4 [1]

- Sample auction for 100,000 CO₂ allowances with a CCR of 50,000 allowances
- The CCR trigger price is \$13.00 per CO₂ allowance

Step 1: The Interim Clearing Price

Bidder D's bid causes cumulative demand to equal supply

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand	
Bidder A	\$14.50	16,000	16,000	
Bidder E	\$14.00	17,000	33,000	
Bidder A	\$13.95	21,000	54,000	
Bidder A	\$13.80	24,000	78,000	
Bidder D	\$13.70	22,000	100,000	Interim
Bidder B	\$13.50	10,000	110,000	< Clearing
Bidder E	\$13.45	9,000	119,000	Price
Bidder C	\$13.30	10,000	129,000	
Bidder E	\$13.05	7,000	136,000	Final
Bidder B	\$13.00	12,000	148,000	< Clearing
Bidder C	\$12.68	20,000	168,000	Price
Bidder A	\$12.05	12,000	180,000	
Bidder C	\$12.00	40,000	220,000	
Bidder D	\$11.25	16,000	236,000	

 Interim clearing price is the bid price <u>after</u> the marginal bid



Auction Format Example No. 4 [2]

Step 2: Triggering the CCR and the Final Clearing Price

- Since the interim clearing price is above the CCR Trigger Price,
 CCR Allowances are released
 - CCR allowances are released from the CCR into the Initial Offering

Step 3: CO₂ Allowance Awards

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand	
Bidder A	\$14.50	16,000	16,000	
Bidder E	\$14.00	17,000	33,000	
Bidder A	\$13.95	21,000	54,000	
Bidder A	\$13.80	24,000	78,000	
Bidder D	\$13.70	22,000	100,000	li
Bidder B	\$13.50	10,000	110,000	< (
Bidder E	\$13.45	9,000	119,000	F
Bidder C	\$13.30	10,000	129,000	
Bidder E	\$13.05	7,000	136,000	F
Bidder B	\$13.00	12,000	148,000	< (
Bidder C	\$12.68	20,000	168,000	F
Bidder A	\$12.05	12,000	180,000	
Bidder C	\$12.00	40,000	220,000	
Bidder D	\$11.25	16,000	236,000	

Interim
< Clearing
Price
Final

Clearing
Price

Allowances are awarded to all bids with a bid price greater than or equal to the final clearing price

Bid Value Example No. 1

- Bids are ranked by bid price from highest to lowest
- Bid price is multiplied by the bidder's cumulative demand at that bid price to calculate a bid value
- The largest bid value calculated and therefore the maximum cost, is the total value of the bidder's bids and is counted against the financial security bid limit - \$502,500

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand		Bid Value at each Bid Price	
Bidder A	\$8.00	17,000	17,000	If this bid is accepted, Bidder A wins 17,000 CO ₂	\$136,000.00	
				allowances and pays at most \$8.00 per CO ₂ allowance.		
Bidder A	\$7.50	50,000	67,000	If this bid is accepted, Bidder A wins 67,000 CO ₂	\$502,500.00	
				allowances and pays at most \$7.50 per CO ₂ allowance.		<
Bidder A	\$5.50	17,000	84,000	If this bid is accepted, Bidder A wins 84,000 CO ₂	\$462,000.00	
				allowances and pays at most \$5.50 per CO ₂ allowance.		
Bidder A	\$5.00	15,000	99,000	If this bid is accepted, Bidder A wins 99,000 CO ₂	\$495,000.00	
				allowances and pays at most \$5.00 per CO ₂ allowance.		
				Bidder A's maximum bid value is counted against the financial security bid limitation.	\$502,500.00	



< Max Bid Value

Bid Value Example No. 2

- Bids are ranked by bid price from highest to lowest
- Bid price is multiplied by the bidder's cumulative demand at that bid price to calculate a bid value
- The largest bid value calculated and therefore the maximum cost, is the total value of the bidder's bids and is counted against the financial security bid limit - \$438,000

Bidder Name	Bid Price	Bid Quantity	Cumulative Demand		Bid Value at each Bid Price
Bidder B	\$6.85	10,000	10,000	If this bid is accepted, Bidder A wins 10,000 CO ₂	\$68,500.00
				allowances and pays at most \$6.85 per CO ₂ allowance.	
Bidder B	\$6.25	20,000	30,000	If this bid is accepted, Bidder A wins 30,000 CO ₂	\$187,500.00
				allowances and pays at most \$6.25 per CO ₂ allowance.	
Bidder B	\$6.05	21,000	51,000	If this bid is accepted, Bidder A wins 51,000 CO ₂	\$308,550.00
				allowances and pays at most \$6.05 per CO ₂ allowance.	
Bidder B	\$6.00	22,000	73,000	If this bid is accepted, Bidder A wins 73,000 CO ₂	\$438,000.00
				allowances and pays at most \$6.00 per CO ₂ allowance.	
				Bidder B's maximum bid value is counted against the financial security bid limitation.	\$438,000.00





Thank you!

Website: https://rggi.org/auctions/auction-materials

Questions: <u>auctionmanager.enelxnorthamerica@enel.com</u>

