RGGI Program Review:
September 25, 2017 Stakeholder Meeting

www.rggi.org
September 25, 2017
12:30 PM - 4:30 PM ET

- Presentation materials posted at the Program Review Meetings webpage
Meeting Agenda

12:30 Welcome and Meeting Procedures
12:40 Maryland Commissioner(s) Remarks
12:55 IPM Policy Case Modeling Results: Presentation
1:20 IPM Policy Case Modeling Results: Questions/Comments
1:40 Customer Bills Analysis: Presentation
2:05 Customer Bills Analysis: Questions/Comments
2:30 Break
2:45 Draft Proposed Model Rule Amendments: Presentation
3:30 Draft Proposed Model Rule Amendments: Questions/Comments
4:00 Other Questions/Comments/Discussion
4:20 Next Steps and Adjournment
RGGI Program Review

- RGGI is the nation’s first mandatory market based program to limit CO$_2$ emissions.

- At the conclusion of the 2012 Program Review, the states committed to commencing another Program Review in 2016.

- During the current Program Review process, states:
  - Conducted electricity sector, CO$_2$ emissions, and macro economic analyses;
  - Consulted extensively with stakeholders and market experts.
Covered emissions are more than 45% below 2005 levels.

RGGI’s auctioning of allowances has especially been praised as an innovative program design element. These quarterly regional auctions have generated more than $2.7 billion in proceeds for reinvestment in strategic programs to benefit consumers and build a stronger and cleaner energy system in the RGGI states.

To maintain a working market the cap needs to be adjusted.

Additional opportunities exist to make the successful RGGI program even more effective and efficient.
Proposed Model Rule Amendments

Outline:

- Size and Structure of the Cap
- Adjustments for Banked Allowances
- Cost Containment Reserve (CCR)
- Emissions Containment Reserve (ECR)
- Offsets
- Reserve Price
- Miscellaneous
The Updated Model Rule contains language for the CO₂ allowance base budgets for allocation years 2018-2030.

The Updated Model Rule includes a regional cap of 75,147,784 tons of CO₂ in 2021 which will decline 2.275 million tons per year thereafter, resulting in a total 30% reduction in the regional cap from 2020 to 2030.
Adjustments for Banked Allowances (Model Rule XX-5.3)

The Updated Model Rule contains language to address the private bank of allowances held by market participants via Adjustments for Banked Allowances.

- The Third Adjustment for Banked Allowances would adjust the base budget for 100 percent of the pre-2021 vintage allowances held by market participants as of the end of 2020, that are in excess of the total quantity of 2018, 2019, and 2020 emissions.

- The third adjustment timing and algorithm are provided in the Model Rule and would be implemented over the 5 year period 2021-2025 after the actual size of the 2020 vintage private bank is determined.

- Market participants may continue to bank allowances.
Adjustments for Banked Allowances
(Model Rule XX-5.3 – Illustrative Example)

- As an **illustrative example only**, the following chart assumes that the private bank of allowances (2020) is 25 million tons.

- In the example below:
  - A reduction to the budget is made for 100% of the private bank of allowances over a 5 year period (2021-2025).

<table>
<thead>
<tr>
<th>Third Adjustment for Banked Allowances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional CO₂ Budget (tons)</strong></td>
</tr>
<tr>
<td>2021</td>
</tr>
<tr>
<td><strong>Third Adjustment (tons)</strong></td>
</tr>
<tr>
<td>2021</td>
</tr>
<tr>
<td><strong>After Third Adjustment (tons)</strong></td>
</tr>
<tr>
<td>2021</td>
</tr>
</tbody>
</table>
An Adaptive Cap

- **Bank Adjustments**: remove surplus from the market early on.
- **ECR**: tightens the cap further if reductions are inexpensive.
- **CCR**: increases supply if market disruptions cause a price spike.

- **Current Regulations**: dotted line
- **Base Cap**: dashed line
- **Adjusted Cap**: solid line
- **ECR**: green line
- **CCR**: red line
CCR and ECR Price Triggers

<table>
<thead>
<tr>
<th>Modeled Price Range</th>
<th>CCR Trigger Price</th>
<th>ECR Trigger Price</th>
<th>Auction Reserve Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5</td>
<td>$10</td>
<td>$15</td>
<td>$20</td>
</tr>
<tr>
<td>$10</td>
<td>$15</td>
<td>$20</td>
<td>$25</td>
</tr>
<tr>
<td>$15</td>
<td>$20</td>
<td>$25</td>
<td>$30</td>
</tr>
</tbody>
</table>

RGGI Allowance Price ($/ton, nominal)
The Model Rule contains language for the continued use of a cost containment reserve (CCR) that will provide flexibility and cost containment for the program.

- The Model Rule contains language for an annual CCR sized at 10% of the regional cap beginning in 2021 and each succeeding year thereafter.
- Allowances from the CCR would be fully fungible.
- The CCR allowances would be made available immediately in any auction in which demand for allowances at prices above the CCR trigger price exceeds the supply of allowances offered for sale in that auction prior to the addition of any CCR allowances.
- If the CCR is triggered, the CCR allowances would only be sold at or above the CCR trigger price.
- The CCR Trigger Price will be $13.00 in 2021 and rise at 7% per year, so that the CCR will only trigger if emission reduction costs are higher than projected.
How the ECR Works

The CCR is...

A reserve from which allowances are released

If prices are high

If triggered, either would act during the auction

The ECR is...

A reserve into which allowances are diverted

If prices are low
How the ECR Works
(Illustrative Example – No ECR)

Auction in 2021 of ~17.5 million tons (25 million ton bank adj.)

Illustrative Bid Stack

Bids ordered from highest $/t to lowest; ex: Bid A is 3mt at $7.50/t

Bid H sets clearing price of $4/t; 17.5 million tons sell
How the ECR Works
(Illustrative Example – ECR Triggers)

Auction in 2021 of ~17.5 million tons (25 million ton bank adj.)
Illustrative Bid Stack with 6.8 million ton ECR at $6/t

Bid H sets *interim* clearing price of $4/t; 17.5 million tons sell

Bid E sets *final* clearing price of $5.50/t; 10.7 million tons sell

ECR withholds 6.8 mt from auction below $6/t

Bid H is marginal before ECR
The Model Rule contains language for the creation and use of an emissions containment reserve (ECR) that will respond to supply and demand in the market if emission reduction costs are lower than projected.

States will withhold allowances from circulation to secure additional emissions reductions if prices fall below established trigger prices.

At this time, Maine and New Hampshire do not intend to implement an ECR. Allowances withheld in this way will not be reoffered for sale.

- The Model Rule contains language for an annual ECR allowance withholding limit of 10% of the budgets of states implementing the ECR.

- The ECR trigger price will be $6.00 in 2021, and rise at 7% per year, so that the ECR will only trigger if emission reduction costs are lower than projected.
To simplify the use of offsets, the updated Model Rule:

- Retains a 3.3% offset limitation for compliance.
- Eliminates two offsets categories – SF$_6$ and End-Use Energy Efficiency.
- Provides that any awarded offset allowances would remain fully fungible across the states.
- Includes minor edits for clarification.
- Contains updates for all documents incorporated by reference.
Reserve Price  
(Model Rule XX-1.2)

- The minimum reserve price in calendar year 2021 will be $2.38.
- The Model Rule retains language stating that each calendar year thereafter, the minimum reserve price shall be 1.025 multiplied by the minimum reserve price from the previous calendar year, rounded to the nearest whole cent.
Delegation by CO$_2$ authorized account representative (AAR) and alternate CO$_2$ authorized account representative (AAAR).

- Allows an AAR or AAAR to delegate to one or more persons his/her authority to have view-only access and review information in COATS (“Reviewer”).
Questions / Comments

Remote participants should send any questions/comments via email to info@rggi.org.
What’s Next: Anticipated Outlook

- Release of final Model Rule Amendments and any additional analyses or materials by the end of 2017.
- State-specific rulemaking processes to begin as soon as possible, with timelines varying by state.
- Goal of completing state-specific statutory and/or regulatory amendments consistent with the updated Model Rule by as early as January 2019, with program changes to be in place and effective by January 2021.
- Initiation of another program review in 2021 to evaluate energy trends, performance of the revised program elements, and overall program design.
Questions / Comments

Remote participants should send any questions/comments via email to info@rggi.org.
What’s Next: Stakeholder Comments

- Written comments are requested by 5:00 PM ET on Friday, October 6, 2017.
- Please send comments by e-mail to info@rggi.org.
- Written comments will be posted on the Program Review webpage.
Thank you!