

Comments of Barclays Capital on RGGI Auction Design
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Barclays Capital ("Barclays") appreciates the opportunity to provide comments on the report entitled "Auction Design for Selling CO2 Emissions Allowances Under The Greenhouse Gas Initiative" issued by the RGGI auction design team, which we believe was very well done and addresses many of the key design issues. If adopted, the recommendations in the report will go a long way towards creating an efficient market for RGGI allowances, leading to the lowest cost CO2 reductions throughout the RGGI region.

Barclays Capital is the investment banking division of Barclays Bank, PLC, and is very active in providing financing and risk management products for generation owners and new project developers in the RGGI region. As such, Barclays expects to be impacted by or directly participate in the RGGI program in several ways:

First, the RGGI program will impact the economics of projects seeking new financing from lending institutions, such as Barclays. As a general rule, borrowers that are either acquiring existing assets or building new assets try to lock in as much of their margin as possible over the term of the loan in order to receive more favorable terms. This is called "being hedged." Depending on their price, RGGI allowances will become a cost driver for generators that needs to be hedged along with fuel inputs and power sales revenues. It is extremely important for these entities that RGGI allowance markets are liquid so that forward markets will develop so they will be able to lock in their future RGGI allowance costs. If they can't obtain a hedge against future RGGI prices, the result will be increased project risk, which translates into increased a higher cost of capital.

Second, as a financial intermediary that already provides long-term power and gas hedges to generators in the RGGI region, Barclays hopes to be in a position to provide long RGGI price hedges as well. Similar to today's wholesale energy market where Barclays is providing 5-10 year energy price hedges that are used as the basis for financing acquisitions or new construction, entities such as Barclays will also be providing multi-year RGGI price hedges to facilitate transactions. Indeed, although the final pieces in the RGGI market design have yet to be put in place, some of our clients are already starting to inquire about RGGI allowance hedging products that can be provided to them.

Finally, as an active participant in the wholesale energy market throughout the RGGI region, Barclays Capital will be impacted by the RGGI program as the allowance prices are expected to impact wholesale energy prices.

Barclays comments focus on one area where the recommendations of the auction design team may need further refinement regarding the establishment of a “contingency bank” of allowances, and it offers three other general comments which it hopes are helpful to the RGGI policymakers in moving the process forward.

I. Impact of the “Contingency Bank” Recommendation on the Market

The auction design team report recommends that any unsold allowances be kept in a contingency bank and released after the auction clearing price exceeds a pre-specified threshold, with the suggested threshold being the first offset trigger of \$7/ton.

If it is true that there is generally an oversupply of RGGI allowances, and the market knows that a contingency bank is being built up that can be released if prices hit \$7, the resulting market dynamics could make risk hedging very difficult.

For example, assume that the first few auctions clear at the minimum prices threshold, say \$2/ton, and that there are a fairly significant amount of allowances that remain unsold in the contingency bank. If a compliance entity, which is “short” allowances, believed the supply/demand balance would tighten over the next few years, their inclination might be to enter into a forward transaction to buy allowances at a later date at, say \$3/ton to hedge their risk. However, the existence of the contingency bank significantly complicates things because if the clearing price in one auction exceeds \$7, the contingency bank is then released, potentially flooding the market, and then driving prices back down, possibly all the way to the minimum reserve price.

It would be difficult for entities to develop an appropriate hedging strategy based on this dynamic because hedging strategies are developed based on an entities forward view of potential market outcomes, stress testing those expected outcomes by calculating what happens if the actual outcome is one or two standard deviations outside of the expected range, then identifying forward buying or selling strategies to manage the resulting risk accordingly. In the case of the “short” compliance entity, say its expected outcome is a RGGI allowance price of \$5. It then models a potential outcome one standard deviation away from that to be \$6, and another potential outcome two standard deviations away to be \$7. But, the complicating factor is that when the \$7 price is hit, the contingency reserve is released, and prices could drop all the way back down to the minimum reserve price of \$2. This type of market dynamic may result in few entities hedging

especially in the early years of the program, and thus the development of an active forward market could be threatened.

In these comments, Barclays is not recommending a concrete solution to this problem other than to note that if the RGGI program is fundamentally oversupplied, a price floor that combined with the contingency bank are not going to solve the fundamental market problem. One solution could be to retire unsold allowances. There may be others that minimize the adverse impact noted above, such as releasing allowances in the contingency bank according to a pre-specified staggered schedule. Barclays notes, however, that this would result in a system of administrative management of the RGGI price, and not result in a RGGI price driven by true market fundamentals.

II. Further Work Needs To Be Undertaken To Define The “Spot” Market:

The auction design report recommends setting the level of the reserve prices based upon some fraction of then current spot market prices. (Note that the RGGI MOU also uses the “average regional spot price” as the safety valve trigger). In order to use “spot prices”, Barclays believes that more definition needs to be provided as to their calculation. Allowances are likely to be traded through electronic exchanges that will publish indices, as well as directly through Over the Counter (OTC) transactions. Several publications are also likely to canvas the broker market to develop their own price indices, similar to what is done today in the power and gas markets. Each of the resulting “spot market” indices will have its pros and cons, and Barclays recommends that as an implementation item, additional work will be needed to more narrowly define how the “spot market” will be measured.

III. Publication of Emissions Data:

Barclays also suggest that the RGGI states publish the latest aggregated emissions data from affected generators well before the first auction. These numbers have not been publicly updated in several years. Without knowing what generator emissions actually are in the years immediately preceding the start of RGGI, and thus what initial demand for RGGI allowances will be, participants won’t know how to value the allowances correctly. Surprise data could lead to a price shock once the actual data is released, as happened in the EU’s Emissions Trading Scheme. This situation can be avoided by publishing updated emissions information as soon as possible.

IV. Broad Auction Participation:

Barclays believes that the auction report correctly address the concerns that have been raised about the participation of non-RGGI generation owners in the auctions by noting that the best way to ensure the most competitive RGGI allowance auctions are to create mechanisms that encourage the broadest possible participation by as many players as possible.