



**RESOURCES**  
FOR THE FUTURE

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## **Comments for the Regional Greenhouse Gas Initiative**

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The purpose of these comments is to address questions concerning the potential participation of Virginia in the RGGI program, the use of a consignment auction, and market dynamics.

### Consignment Auction Design in Virginia

The state of Virginia's proposed regulation will distribute most of its allowances to compliance entities without charge. However, the allowances have conditional value that cannot be realized and the allowances cannot be used for compliance until they have been submitted on consignment to the RGGI auction for sale. The Virginia compliance entities that were the original holders of the conditional allowances will receive the auction value of their consigned allowances, once sold, in proportion to their original allowance shares.

This approach, with Virginia compliance entities required to consign their allowances to the RGGI auction, should integrate seamlessly with the existing auction in which allowances are submitted for sale by the RGGI states. The auction outcome does not depend on whether the sold allowances are submitted by a state or if they are submitted by a compliance entity through consignment. From the perspective of other buyers and sellers, the auction works equally well in either case.

Allowances consigned to the RGGI auction will expand the size of the allowance market, and the fact that they are consigned by compliance entities in comparison with other allowances that are submitted by RGGI states will not affect the efficiency of the auction. If the addition of Virginia's consigned allowances has any effect, it may enhance the efficiency of the auction by expanding the size of the auction.

It is useful to note that consigned allowances from compliance entities in Virginia will also work seamlessly with other features of the RGGI program. The consignment auction approach in Virginia is a valuable feature of the state's program design because it enables the price floor, the emissions containment reserve (ECR), and the cost containment reserve (CCR) to function seamlessly with respect to the aggregate supply of allowances, which includes both the consigned and state-held allowances. The consigned allowances will be indistinguishable from state-held allowances in the auction, and the effect of these elements of the auction implementation will affect all the allowances in the same way. The same price floor and price points for the emissions containment reserve and the cost containment reserve will apply to the consigned and state-held allowances.

While Virginia's consignment auction would be a new feature for the RGGI program, it is not unique. Previous experience with consignment in emissions markets include the sulfur dioxide trading program established under the 1990 Clean Air Act Amendments. In that program the emissions allowances were initially distributed without charge to compliance entities, but those entities were required to submit a fraction of their allocation under consignment to an auction held by the Environmental Protection Agency. In retrospect, economists describe that consignment auction as an important element of the overall program's marked success. Currently, the Western Climate Initiative runs an auction that is very similar in its basic design to the RGGI auction. In that auction, allowances that have been initially distributed to investor-owned utilities in California must be consigned for sale in the auction, with the revenue returned to the utilities on a proportional basis. The California auction also has a price floor and a cost containment reserve, and the program has worked without a problem.

The consignment approach in Virginia embodies virtues that apply generally to the RGGI auction already. The consignment auction is transparent, in that all observers can witness the original holders of the allowances, and well as the flow of revenues back to the original allowance holders. This transparency has value to Virginia regulators; and it has value to the rest of the RGGI program because this type of transparency enables evaluation of market performance that is regularly conducted by the RGGI market monitor. Moreover, the consignment approach in Virginia creates a program design in the state that could seamlessly segue to a revenue raising auction if the state were to choose to move in that direction in the future.

#### Market Dynamics as a Consequence of Virginia Participating in RGGI

Virginia will constitute the largest single state-share of the total market after the state begins to participate in RGGI. Some observers have asked whether this changes the market dynamics or introduces the possibility of market manipulation by regulated entities and other market participants.

First, it is important to note that the state is not a compliance entity. The relevance of the state's size with respect to the total RGGI market is that it is likely to improve efficiency by expanding the size of the market. This expanded market should reduce price volatility, because factors that affect market dynamics, such as weather patterns or economic activity, are less tightly correlated across states when the program expands to a larger region. In general, there has not been any evidence of strategic behavior or market manipulation in RGGI to date, and a larger allowance market should make strategic behavior even less possible. Because the consignment auction conforms closely to the current design of the RGGI auction and market design, the expansion of supply will not affect market dynamics except to potentially strengthen the operation of the market. As in the auction, where all allowances are treated equally, the overall market including the secondary market for bilateral trades among compliance entities will treat all allowances equally. Buyers and sellers of allowances in the secondary market will have no interest in whether the allowance was initially distributed through the auction on consignment or submitted by a RGGI state.

When economists evaluate the potential for strategic behavior, they are interested in the size and market power of individual participants in a market. When Virginia begins to participate in the RGGI market it is expected to bring the largest individual compliance entity to the program: the investor-owned utility, Dominion. Nevertheless, the size of any individual compliance entity will still not be enough to raise concern about potential strategic behavior in the allowance auction or secondary market.

There is a related concern for RGGI, however. The auction has a bid limitation that limits the share of allowances that any one entity can purchase to 25 percent of all allowances that are sold. If Virginia participates in the RGGI program, that limitation might not make it possible for all the compliance entities in the program to rely strictly on the auction to acquire their necessary allowances if they chose to do so. RGGI should consider amending this rule by expanding the size of the bid limitation by any one entity such that every entity has the possibility of relying on the auction for compliance. That change would be modest, and making that change to accommodate all the entities in the expanded market will not create a possibility for market manipulation, because still, no single entity will be of sufficient size to exercise strategic behavior. Further, the largest compliance entities in Virginia operate under cost-of-service regulation, unlike many other firms in the RGGI market that are independent power producers. A regulated company would not have the same potential incentive for possible manipulation as would competitive companies because advantageous rewards would be expected to flow to rate payers rather than shareholders; this may lessen the incentive for strategic behavior and mollify potential concern. Nonetheless, the RGGI market monitor should remain vigilant about market disruptions due to manipulation or strategic behavior; however, the concentration in the market held by the largest entity after Virginia begins to participate in RGGI is not sufficient to increase that concern and the expanded size of the market overall should reduce concern.

Given that Virginia's regulatory design is very complementary to the RGGI program, the only consideration that is of enduring interest in the potential effect on market dynamics are the relative emissions budget of Virginia and RGGI when Virginia enters the program. This is an issue already recognized by Virginia and the RGGI states. Virginia and the RGGI states will want to look for the right balance among costs incurred by all the states. If Virginia has an emissions budget that exceeds demand in Virginia at the auction clearing price, and RGGI has an emissions budget that is less than demand in RGGI, Virginia could end up selling allowances to other RGGI states, while pushing down the allowance price and the revenue collected by the RGGI states. On the other hand, if Virginia's emissions budget is relatively tight compared to the RGGI states, Virginia would end up buying allowances from other RGGI states, pushing up the allowance price and the revenue collected by other states. Indeed, one of the reasons the states do modeling is to anticipate this type of issue and plan for eventualities. RGGI and Virginia's actions to date to model this and explicitly address forecast emissions is the right process to provide analysis that can support decisions that enable the reduction of emissions on a broad regional basis.

#### Interaction between Competitive and Regulated Companies

Some observers have questioned whether there is any relevance in the different regulatory structure between Virginia and most of the other RGGI states. The compliance entities in Virginia are mostly subject to cost-of-service regulation, while most of the RGGI region has competitive generation companies. However, as noted previously, from the perspective of buyers and sellers in the allowance market, there is no distinction where allowances come from or whether they are bought by one type of company or another. Each allowance is treated in an equivalent way, and each ton of emissions brings an equivalent compliance obligation.

In Virginia, the value of consigned allowances returns to regulated companies, and because of state regulatory oversight that value is expected to accrue to the benefit of rate payers. This outcome is somewhat similar the practice in some other RGGI states such as Maryland, where a portion of allowance value has been returned on the electricity bill. Because there is little difference between these examples, one should not expect the participation of Virginia to introduce a substantial change

that would affect the market. In the future, if the program were to become substantially more stringent either as a regional program or as a model for a national program, the return to rate payers would be more substantial. In that case, from an economic perspective, an alternative approach that might be preferable would be to return the value to electricity consumers on a periodic (i.e. six month) basis rather than monthly. This way consumers would see higher prices in most months, reflecting the value of allowances, thereby providing an incentive to conserve energy. Periodically, they would receive a dividend that preserves distributional goals and provides a program feature that is likely to be popular with recipients, which in turn builds constituent support for the program.

Thank you for the opportunity to share these views with RGGI.

Sincerely,

A handwritten signature in black ink that reads "Dallas Burtraw". The signature is written in a cursive, flowing style with a long, sweeping underline that extends to the right.

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