Memorandum

TO: Will Space, MassDEP

FROM: Pallas LeeVanSchaick

DATE: August 27, 2021

RE: Comments on Proposal to Auction Allowances for Future Compliance Years

This memo discusses issues for consideration in the current program review, including: the recommendation to auction future year allowances to improve market liquidity, discussion of stakeholder comments on the issue, and comments on the auction procedures if future year allowances are auctioned at the same time as current year allowances.

A. Recommendation to Auction Future Year Allowances

In our role as Market Monitor, we have observed that some regulated entities purchase current year allowances to hedge their projected needs in future compliance years. This happens because there is no secondary market for future compliance year allowances and current year allowances can be "banked" for use to satisfy future compliance year requirements. Since the allowance market is relatively illiquid, the additional demand for current year allowances has likely increased allowance prices. To address these concerns and to enhance price discovery in general, I recommend conducting quarterly auctions for future control period allowances.

Electricity generators are subject to significant market risks from unforeseen fluctuations in wholesale power prices as well as the prices of fuel and other inputs. Generators often reduce these risks through hedging. For example, a combined cycle generator may sell electricity futures for 2023 at an average price of $35/MWh, while buying futures for natural gas and other inputs for an all-in production cost of $25/MWh, locking in a spread of $10/MWh. Such futures contracts are generally available for wholesale power, natural gas, and RGGI allowances, but futures contracts are not available for Mass GHG program allowances, so regulated entities seeking to hedge the market risk of *future* electricity sales must purchase excess Mass GHG program allowances for the *current* compliance year. The sale of future compliance year allowances would better enable regulated entities to hedge the risk of future compliance obligations.

In addition, the sale of future control period allowances would likely enhance liquidity by improving price discovery. When parties engage in bilateral trading, the prices of the transactions provide useful information to other market participants in their assessments of the projected cost of Mass GHG allowance program compliance and the potential risk of allowance price fluctuations. Likewise, publication of auction clearing price information enhances price discovery which may increase the willingness of some firms to offer financial hedges to regulated entities seeking allowances for future compliance years.

B. Stakeholder Comments

In May, the Mass DEP received only two comments directly related to its proposal to auction allowances for future compliance years. The lack of comments on the proposed change should not be taken as an indication that the proposed change would not be beneficial for two reasons. First, firms that have a strong desire to purchase future compliance period allowances may be reluctant to say so publicly since this might put them at a disadvantage in subsequent transactions. Second, only a quarter of regulated entities provided any comments related to the Mass GHG allowance program, and most of these comments were focused on proposals that would clearly benefit or harm the individual commenter. Commenters may not perceive significant benefit from an efficiency enhancement that would generally help all generators compete more effectively because consumers are usually the primary beneficiary of market efficiency improvements.

Specifically, one commenter recommended against auctioning allowances for future compliance years saying that it would "introduce an element of speculation". However, the primary purpose of auctioning future vintages is that it would help generators (most of whom do not have retail load customers) hedge market risk of price fluctuations for wholesale power and production inputs. Furthermore, the sale of future compliance year allowances is expected to increase price discovery, which would enhance liquidity and tend to reduce the price effects of speculative behavior.

The other commenter recommended against changes to provisions that could affect a regulated entity's ability to utilize allowances already purchased. For example, if the Mass DEP planned to impose allowance banking limits and it had already sold a large number of 2023 allowances, it might need to defer application of the new rule until after the deadline for 2023 compliance. However, since the proposal to sell future compliance year allowances would result in the sale of a relatively small number of allowances, it likely will not prevent the Mass DEP from applying future rule changes in the subsequent year.

Other less directly relevant comments included a suggestion to require facilities to offer banked allowances at auction each year and a suggestion to impose facility-specific bid limits. Both suggestions would tend to limit the ability of a single firm to acquire an excessively large holding of allowances, indicating that the commenters are concerned about whether allowances will be available when needed. It is worth mentioning that the sale of future year allowances would help address this concern by expanding the pool of allowances in circulation, thereby making it more difficult for a single firm to obtain an excessive number of allowances and easier for other firms to obtain needed allowances.

C. Recommended Auction Procedures

If Mass DEP adopts the proposal to auction future compliance year allowances, I would recommend selling a relatively small number of allowances for future compliance in each quarterly auction (e.g., 5 percent of the annual cap). This would be sufficient to promote price discovery and allow firms to hedge future power sales (without bidding up the price of allowances in the current year).

The sale of two different vintages could be done by conducting two auctions simultaneously: one for the current year and one for the future year as was done in a previous auction event. However, a more efficient alternative process would offer allowances from both compliance years in a single auction with a joint market clearing rule. This would allow firms to submit bids for the current year, the future year, or both, but it would allow winning bids for future year allowances to be filled by current year allowances (since current year allowances can always be banked for future compliance). This alternative format would guarantee the ability of firms needing current year allowances to buy them, while ensuring allowances otherwise go to the highest bidder.[1]

1 Note, this joint clearing format should be familiar to regulated entities because ISO – New England's real-time market for operating reserves works on the same principle. Specifically, the ISO conducts a joint auction where a generator offering to sell 10-minute response operating reserves can satisfy the demand for 30-minute response operating reserves, since the 10-minute response operating reserves are a "superior good" (i.e., the 10-minute response time exceeds the requirements for 30-minute response).