Information Release on Allowance Holdings in the Greenhouse Gas Emissions Cap-and-Trade Market

by

Severin Borenstein, James Bushnell and Frank A. Wolak

February 2014

The foundation of a cap and trade market is the concept that market participants will recognize a price for GHG emissions and will incorporate that price in making decisions about input choices, output quantities, and price setting for their own products. To respond efficiently, however, firms need to have a credible estimate of the cost that is associated with the GHG allowance liability that they incur. Further, market transparency makes attempts at manipulation of prices more difficult and more costly. In this document we discuss two related aspects of information policy: the timing of information releases and the details of what information is released.

Information Provided to the Market:

The current and future outlooks for the supply of and demand for allowances are the basic fundamental drivers of allowances prices. A liquid and transparent market would therefore ideally have timely and accurate information about both emissions levels and the allowance holdings of firms. One must recognize that, when it comes to information availability, there is a potential tension between the public interest and the proprietary interests of a given firm. While market efficiency would benefit from full transparency of holdings, many market participants have articulated concerns that disclosure of a large short position would put them into a disadvantageous negotiating position. An important consideration is the ability (or lack thereof) to buy needed allowances through a more anonymous platform, such as the quarterly allowance auction, as opposed to through bilateral transactions where the counter-parties know exactly with whom they are transacting. One concern is that in bilateral settings potential counter-parties could try to extract higher prices from firms they know are strongly in need of additional allowances.

Conversely, it is generally accepted that transparency makes it more difficult for firms to acquire dominant positions in a market. If market participants are aware of that an individual or firm is buying up a large share of available allowances, sellers are likely to demand higher prices, making the attempt at market dominance more costly. This is the logic behind rules that require disclosure of dominant positions. For example, any individual or firm that acquires more than 5% of equities in a publicly-traded stock is required by the Securities and Exchange Commission to disclose their position.

The ARB originally proposed restricting holding account information but providing full firm-level detail on the allowance balances held in compliance accounts.\footnote{See the white paper on holding limits for descriptions of the account types.} The proposal to make
full firm-level detail on compliance account balances is being reconsidered. The ARB is considering sector-level aggregation with quarterly updates. We have been concerned that too high a level of aggregation would harm transparency and make the acquisition of a dominant position less costly, while providing little public benefit.

Proposal for Disclosure of Allowance Ownership Positions

We see a significant need for timely disclosure to all market participants if one (or more) entities builds up a large long position in the market. Establishing such a long position potentially gives the entity an incentive to withhold allowances from the market and drive up the price in order to subsequently sell a subset of their holdings at the artificially high price. Note that firms with large gross holdings of allowances will not have an incentive to raise prices if the net position of that entity is still “short.” In other words, entities with large holdings that are nevertheless smaller than their expected compliance obligation are much less likely to attempt to withhold allowances from the market.

We also believe that confidential monitoring by the ARB is not sufficient to curb potential for abuses of a long position. If the ARB found that an entity had acquired a large long position, but not in violation of holding limits, and ARB could not disclose that information, then there is little else that ARB could do. The natural market forces that would take place in response to the information – an upward price adjustment and greater interest on the part of entity in short positions to cover their shortfall – would not occur.

While we see benefits to disclosing the net positions of all parties, stakeholders are concerned that such disclosure could put an individual firm at a disadvantage when attempting to buy (or sell) allowances. We therefore propose a measure that balances the desire to preserve a degree of anonymity of balances but also conveys information about the aggregate net positions of firms.

The general idea would be to provide an index of the concentration of net positions in the market. The specific parameters of a proposal would have to be studied, but here we propose a general framework. There are three aspects to consider when designing such an index:

1. How large of a long position would be disclosed and would there be multiple categories of long position sizes?

We believe that long positions need to be measured in terms of absolute size of net position in millions of metric tons (MMT), not as a percentage of allowance needs. This is because the absolute size of a long position is what determines the ability to profitably withhold supply.\(^2\) We propose that the ARB provides a count of the number of firms whose net holdings fall into one of several general categories. In effect this would be a histogram of the net positions of firms.

\(^2\) A percentage standard bears no relationship to the problem that disclosure is intended to address. Furthermore, any pure financial market participant with no allowance obligation would violate such a standard with the first allowance they purchase.
One issue is the size of the “bins” for sorting firms into categories. Bins that are too broad would too seriously dilute the information being provided, while bins that are too narrow might not preserve anonymity. We propose consideration of categories separated by 5 MMT, with a top bin of either 20 or 25 MMT. For example, the ARB would periodically disclose that “X firms currently have long positions of at least 0 to 5 MMT and Y firms currently have long positions of at least 5-10 MMT, and Z firms have positions that are over 20 MMT long.” This proposal is illustrated in Figure 1.

![Sample Report on the Net Positions of Firms](image)

**Figure 1: Hypothetical Net Position Report**

The size of the holdings that would be included in such an announcement and the number of different categories would be the subject of further study and the results of market simulation analysis. An analysis of the likely distributions of obligations would be recommended before any specific number is set for the size of these categories. The size of a long position that may be of concern will depend in part on how much time remains in the compliance period for which the entity is long.

2. **Definition of a long position**

Because there are multiple compliance periods and allowances are bankable, there are multiple ways in which a long position might give an entity the ability to influence prices. At any point in time, the long positions that are likely to make withholding profitable to the entity would be for each of the compliance periods and for the market as a whole. The definition of long would be holding more allowances than the entity is expected to need to meet its compliance obligation in a given compliance period.
We propose that the long position be based upon the expected two-year or three-year compliance period obligation of a firm. Beyond 2015 this would mean taking emissions from the previous reported year and applying them as estimates of emissions for any remaining years in the three year compliance cycle. For each year of the compliance cycle for which data are available, the actual emissions would be used to calculate the obligation.

The net position would be based upon holdings (in both the compliance and holding accounts) relative to this measure of the expected compliance-period obligation.

3. *How quickly and frequently would ARB make these disclosures?*

The goal of this disclosure policy is to make all market participants aware when any entity is acquiring a long position that is sufficiently large to make withholding strategies profitable. Such disclosure should give other market participants sufficient warning for them to cover their own short positions and appropriately adjust the prices at which they are willing to buy and sell. To accomplish this, frequent disclosure would be preferred.

The appropriate frequency for market updates will depend upon the activity in secondary markets. If there is little activity in secondary markets between quarterly auctions, then quarterly updates would likely be sufficient. As secondary markets become more active a weekly update would be more helpful. We envision a, short, standardized report that would be released at a standardized time, perhaps after close of markets on Friday afternoon. A computer program could be written to automatically carry out the necessary calculations.