

Issue Analysis¹: Price Ceiling in the Greenhouse Gas Emissions Cap-and-Trade Market

by

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One issue that has a strong influence on the overall performance of the market is the policy regarding the allowance price containment reserve (APCR).

The allowance price containment reserve was established to help to mitigate undue volatility in allowance prices. It is accompanied by an associated floor price that will be enforced in the allowance auctions. The EMAC strongly supports the role of the price containment reserve, but we believe that it should be strengthened further to reduce uncertainty about the likely policy response if the price rises to the highest tier of the APCR and all available allowances are exhausted.

The changes that the Board considered at its October meeting permit allowances from later years (of the 2013 to 2020 program) to be shifted to earlier years if the price rises to a sufficiently high level. This is a useful response to the concern that the first compliance period (2013-14) could have a shortage of supply.

The Board's action, however, doesn't address the more significant threat that there could be a supply/demand mismatch for the entire 8-year program. If market participants thought that there were not enough allowances over the 8-year period to cover the entire emissions under the cap—which could result from a number of years of strong growth in the economy and accompanying emissions—then the price of permits for all remaining periods would soar. If that happened, moving permits from one year to another is akin to trying to raise a bathtub level by taking water from one end of the tub and pouring it into the other.

Left unchanged, current regulations suggest that if demand for allowances exceeds supply at the highest price of the APCR, the allowance price would be allowed to rise to any level that is necessary to ratchet down allowance demand to meet the capped supply. However, we believe that it is highly unlikely that the political and regulatory process would allow the market to continue to operate freely at unduly high allowance prices, such as above the highest tier of the APCR. When allowances in the Southern California RECLAIM NO_x emissions market became very scarce during the California electricity crisis, allowance obligations in the market were

¹ The Emissions Market Assessment Committee (EMAC) was formed to provide independent analysis and advice to the California Air Resources Board (CARB) and staff on implementation of California's greenhouse gas (GHG) cap-and-trade (C&T) market. Issue analyses reflect the views of the EMAC at the time they are released. They are written in order to inform stakeholders of the EMAC's views in a timely manner and to invite feedback from interested parties. The EMAC will update its views as new information arises and circumstances change.

suspended. Such an intervention in the California GHG market is currently not well defined in the regulation and would almost certainly be more disruptive when taken under duress. It is far better to have a transparent and credible process for limiting allowance prices established in advance than relying upon ad hoc emergency measures during periods of stress.

A strong defense of the price containment reserve is crucial to enhancing the integrity of the market for several reasons. First, some negative shock to the market, such as severe drought or long-lasting power plant outages, could cause a short-run disruption to the market. If this shock happens late in the process, say 2019, there may not be time for the market to recover without a sharp increase in permit prices that otherwise could have been borrowed from a post-2020 reserve. The result would be allowance prices at levels that could negatively impact both the California economy and the integrity of the cap-and-trade program. Second, if allowance prices truly had no ceiling, speculative trading would likely account for these low-probability, high-price events, which would raise average prices overall. Third, the potential for extremely high allowance prices raises the potential rewards to any strategy to manipulate the market, and therefore raises the risk of manipulation. If allowance prices had a clear and transparent ceiling, many costly actions necessary to attempt to manipulate the market would likely not be worth trying in the first place. The price ceiling therefore plays an important role as a deterrent to detrimental trading behavior. Such deterrence is only effective if it is credibly and transparently established in advance.

While there may be some concern that the expansion of the allowance price containment reserve would harm the environmental integrity of the program, we believe that, by strengthening confidence in the allowance market, it will ultimately enhance the integrity of California's cap-and-trade system. A near-term expansion of the reserve could be accompanied by a mechanism that borrows those emissions from the post-2020 period, thereby preserving the overall level of emissions between the pre- and post-2020 periods.

Fortunately, recent developments appear to increase the prospects for a practical implementation of this option. Board Resolution 13-44 of October 25, 2013, directs the Executive Officer to develop a plan for a post-2020 Cap-and-Trade Program, including cost containment, before the beginning of its third compliance period to provide market certainty and address a potential 2030 emissions target. This resolution provides a starting point for a policy that enforces a credible maximum price for the pre-2020 period by borrowing allowances from the post-2020 compliance period.

Finally, we note that one of the main goals of the program is to establish a practical and functional climate policy that could attract and expand to other jurisdictions. This goal is surely undermined if the allowance market is viewed to be overly volatile and too costly relative to its benefits. For many of these same reasons, we also believe consideration should be given to an adjustment of the price levels at which the reserve is activated. If there are relatively few sources of truly price-responsive emissions reductions in California, then one consequence is that emissions prices are more likely to be volatile. Establishing a more narrow range on allowance prices would limit this volatility. To the extent that the environmental integrity of a lower reserve price is a major concern, a reduction in the price ceiling could be accompanied by an increase in the price floor.

In emissions markets, the allowance price containment reserve can play an important constructive role in balancing the goals of environmental gains and economic costs. To be effective, however, these prices must be credibly defended against speculation. The California electricity crisis demonstrated that a price-cap that is easily circumvented is both ineffective and ultimately counter-productive. Some relatively minor adjustments can greatly enhance the credibility and transparency of the price containment reserve and make a large contribution to the stability of the allowance market.