

Potential Approaches to Adjusting Allowance Supply  
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## Introduction

The quantity of allowances in circulation now and in the future in the Western Climate Initiative carbon market determine the number of emissions that will occur at sources covered by the cap-and-trade program. The emissions budget in the program was determined amidst considerable uncertainty about cost, technology, and climate science, and is an interim milestone on the path toward achieving the state's long-run climate policy goal of decarbonization of the state's economy. The emissions price and the quantity of allowances held in banks for use in future years provide information about the progress towards the interim emissions budget milestone and long-run climate policy goal. Based on that information, policy makers might adjust the number of allowances in the market to affect the overall pace at which emissions reductions are achieved.

A separate section of this report addresses methods to assess the quantity of allowances available in the market. Allowance supply supplemented with other information enables policymakers to ask if the allowance supply is too large or too small, and if program adjustments are necessary. This section addresses methods for the potential adjustment to allowance supply if they are deemed necessary.

One approach to adjusting allowance supply we describe as a **rule-based adjustment**, or automatic adjustment, that occurs for example when the auction price is at the price floor, which causes fewer allowances to enter the market, or when the auction price is at a cost containment price point, which causes additional compliance instruments to enter the market. In contrast, we characterize an **administrative adjustment** as one that involves deliberation and decision by the Air Resources Board, for example a change in offset protocols, adjustment for Ontario's withdrawal from WCI, or backloading of allowances in the program's Fourth Compliance Period. Both types of adjustment could be used for any given policy reform mechanism. For example, allowances that were unsold at the price floor are moved into the cost containment reserves, which is a rule-based adjustment, but that rule could be administratively altered to affect allowance supply further.

Both approaches have advantages. Rule-based adjustments may be easier to anticipate by compliance entities based on current market conditions. Administrative adjustments reflect consideration of multiple factors and allow for public input; however, whether and when administrative adjustments occur may increase regulatory uncertainty. The possibility of administrative adjustments is always available to regulators, but often the process of deciding to make an administrative adjustment is time consuming and difficult.

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**Table XX. Potential Approaches to Adjust Allowance Supply**

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- Delaying sale of auctioned allowances (back-loading), or cancelation of auction sales, based on the number of allowances in circulation
  - Adjusting the flow of allowances unsold at the price floor that come back into the market and/or moving them into the allowance price containment reserve
  - Changing the compliance value of allowances, for example, by applying a discount rate on banked allowances that varies based on the allowance vintage year
  - Allow use of allowances as an alternative compliance instrument (with appropriate currency adjustment) in the LCFS
  - Increasing the price floor
  - Introducing additional price-triggered supply adjustments like an emissions containment reserve
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Table XX lists several potential adjustments to allowance supply that could be implemented based on rule-based or administrative approaches. These examples describe ways to reduce allowance supply, but there are analogues for how to increase allowance supply.

Implementation of the examples in the table or other approaches could have immediate effects on the market that are unintended. For example, changes in the allowance supply will affect currently linked jurisdictions and consequently a careful collaborative process should be pursued. In addition, an administrative change to the program or a change in a rule-based adjustment mechanism that leads to a reduction in the allowance supply will increase the value of allowance banks held by private parties, which might be perceived as unjustified. If an adjustment is implemented suddenly, it may appear to surprise compliance entities, undermining the political sustainability of the program. Sudden changes to the program may trigger the anticipation of subsequent adjustments and may increase the perceived risk of various compliance strategies. Further, adjustments to supply may change the revenue that is available for the state's greenhouse gas investment fund.

With these considerations in mind, the committee offers the following recommendations regarding approaches to adjust allowance supply.

**Recommendation #1:** Preferentially and where possible, CARB should develop rule-based approaches for adjustments to supply on an automatic basis that can be anticipated by market participants. The approach could be triggered by a price-based measure such as an emissions containment reserve(s) as observed in RGGI, or a quantity-based metric such as a market stability reserve as observed in the EU.

**Recommendation #2:** Changes in the program to adjust allowance supply should be announced in advance of implementation.

**Recommendation #3:** CARB should consider a vintage differentiation of allowances to adjust their compliance value (tons/allowance) before and after program reform to avoid unintended changes in the value of banked allowances.