

# Auction Format and Auction Frequency for California's Greenhouse Gas Emissions Cap-and-Trade Market

Emissions Market Assessment Committee  
Meeting

November 14, 2013

## Transparent Pricing and Anonymous Market for GHG Allowances

- Recommend two changes to allowance auctions held by Air Resources Board (ARB)
- Two-sided auction—Price-responsive supply and demand offers
- More frequent auctions—At least monthly frequency
- Both changes will provide more credible and timely information and allowance prices

# Benefits of Two-Sided Auctions

- Two-sided auction allows participants to submit their willingness-to-purchase and willingness-to-sell allowances
  - Price at intersection of the aggregate willingness-to-purchase and aggregate willingness-to-sell is market-clearing price
  - For each participant, amount willing to purchase at or above market price less amount willing to sell at or below market price is net demand for allowances
- Two-sided auction provides an anonymous market mechanism for small and large market participants to sell allowances they do not need or purchase additional allowances
- Particularly useful for regulated entities because regulator can use market-clearing set by two-sided auction as transaction price
  - For bilaterally traded allowances, regulator must be concerned about validity of “transaction price” as current market value of allowance
  - California Public Utilities Commission can allow the entities it regulates to trade allowances through these auctions

# Benefits of Two-Sided Auctions

- Two-sided auction mechanism increases “liquidity” of auction market
  - Liquidity = ability to transact a large volume without significantly impacting market price
  - All participants allowed to submit both willingness-to-purchase and willingness-to-sell allowance in a two-sided auction which should increase liquidity of market

# Benefits of Increased Auction Frequency

- Difficult to obtain transparent price information from bilateral trades
  - Products can be bundled in a manner that can hide actual transaction price or simply make it impossible to recover
- Market work best when there is credible information information available in a timely manner
- More frequent two-sided auctions provide this information
- More frequent auctions provides ideal mechanism for small traders to purchase or sell allowances
  - Can to this without having to spend money to learn “market price of allowances” as is the case in bilateral market
  - Large firms can trade sizeable positions in an anonymous manner to obtain best possible price, which can be more difficult in bilateral market

# Implementation Challenges

- Many different two-side auction designs
- Minor increase in complexity with two-sided versus current one-sided auction design
- To accommodate increased frequency may want to increase degree of automation of auction processes
  - Potential increased up-front costs of operation

## Conclusions

- Introduce two-sided auction process
- Increase auction frequency to at least one per month, if not more frequently