California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms

Edie Chang

California Air Resources Board
September 2015
Goals of the Program

- Reduce GHG emissions
- “Price” emissions to incentivize change
- Spur innovation in low emissions and efficient technologies
- Complement existing programs to reduce smog and air toxics
- Ensure AB 32 reduction mandates for GHG are realized through strict limit
- Flexible mechanism—allows covered entities to find most cost-effective reductions
- Facilitate integration of regional, national, and international GHG reduction programs
Who is covered?

- Cap covers 85% of California’s GHG emissions (450 entities)
- Stationary sources of emissions at or above 25,000 metric tons of CO$_2$e per year
  - Large industrial sources (e.g. cement, refineries, oil and natural gas producers)
  - Electricity generation and imports
- Upstream coverage of small combustion emission sources (at fuel provider—e.g. fuel wholesaler, or first entity to offer fuel on the wholesale market)
  - Transportation fuels (began January 1, 2015)
  - Residential and commercial use of natural gas (began January 1, 2015)
Definitions

Compliance instruments

- **Allowance**—Issued by the State and means “a limited tradable authorization to emit up to one metric ton of CO2e”

- **Offset credit**—Issued by State for reductions that take place outside the program and means “a tradable compliance instrument issued by ARB that represents a GHG reduction or GHG removal enhancement of one metric ton of CO2e”

- Not defined as property, considered permits
Size of the California-Quebec Linked Market

- Approximately 2.94 billion compliance instruments
- 2015 Auction Floor Price - $12.10 USD
- Approximate market value: $35 billion USD
- Value of compliance instruments in circulation: ~$9 billion
- California Auction Proceeds
  - 12 Auctions since Fall 2012
  - $2.8 billion USD
Role of the Registry System

• Compliance Instrument Tracking System Service
  • Implements the California Cap-and-Trade Regulation
  • Currently supports California and Quebec linked program
  • Soon to be modified to support Ontario’s program pre and post linkage to CA/QC

• Enables the issuance, trading, and retirement of compliance instruments

• Each compliance instrument has a unique serial number

• Not an exchange - Official recorder for compliance instrument
  • Air Resources Board does not have authority to administer an exchange
Legal Framework

- AB 32 directs ARB to set 2020 statewide target and develop scoping plan to chart how target will be achieved
- Cap-and-Trade Program one of a suite of measures identified in the Scoping Plan to achieve statewide target
- ARB developed and approved the Cap-and-Trade Regulation
- State statute requires ARB to oversee and enforce its regulations
- CITSS- tool to implement and monitor implementation of the Cap-and-Trade Regulation
Market Oversight and Enforcement

- ARB has primary oversight of the compliance instruments in CITSS
- Does not have oversight of secondary or derivatives markets – CITSS does not track these
- ARB coordinates oversight with the U.S. Commodity Futures Trading Commission (CFTC)
  - Sharing market data and analysis
  - Training
  - Legal coordination
- ARB coordinates enforcement with CA Department of Justice
Lessons

- System development is dictated by program regulatory needs
- Understand lead agency authority and develop system that enables implementation, program auditing, and oversight
- Consider an expandable system to enable linkage, if desired
- Consider security features to protect financial value of the program
  - Features for market monitoring – position limits
  - Know-your-customer for account access
- Balance program implementation needs with ease of use on regulated sectors
  - ARB provides system training
- Be prepared for phased development over time
Additional Information

California Cap-and-Trade Program Webpage:

http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm