Cap-and-Trade Program

December 16, 2010
California Air Resources Board

Presentation Overview

- Introduction
- Proposed cap-and-trade program, including compliance offset protocols
- Proposed amendments to the Mandatory Reporting Regulation
- Next Steps
- Proposed 15-day changes

Objectives of the Cap-and-Trade Program

- Reduce statewide GHG emissions
- Balance environmental stringency and compliance costs
- Establish framework for a low-carbon economy
- Complement other air quality and GHG programs
- Link with Western Climate Initiative (WCI)

What is Cap-and-Trade?

- The “cap” limits GHG emissions, and uses allowances to control total emissions
  - One allowance equals one ton of GHGs
- The cap declines each year
- Covered entities must reduce emissions or compete for a decreasing supply of allowances

Public Process for Stakeholder Involvement

- 40 public meetings on program design
- Stakeholder meetings
- Stakeholder comments
- Release of Preliminary Draft Regulation and public workshop in late 2009

Regional Participation

- Founding member of WCI
- Three Regions Process
  - WCI, Regional Greenhouse Gas Initiative (RGGI), and Midwest Greenhouse Gas Reduction Accord

Federal Interaction

- ARB supports U.S. EPA’s GHG permitting guidance
- State-federal collaboration maximizes California’s investments in low-carbon technologies, fuels, and energy efficiency
- ARB will partner with U.S. EPA as they develop the federal regulatory framework to grant delegation or equivalency to California's climate program

How Does the Proposed Cap-and-Trade Program Work?

What Is the Cap and Who Is Covered? (1)

- The cap is the aggregate limit on GHG emissions from covered sources from 2012-2020
  - The cap applies to all sources combined
  - Individual facilities do not have caps
- Total number of allowances equals the cap
- The allowance budget starts at expected 2012 emissions for sources covered by the program and declines over time

What Is the Cap and Who Is Covered? (2)

2015: 394.5 MMT

2020: 334.2 MMT

2012: 165.8 MMT

What Do Covered Entities Need to Do?

- Register with ARB
- Report GHG emissions annually
- Acquire compliance instruments (allowance and offsets) equivalent to emissions
- Surrender allowances and offsets to match emissions at the end of each compliance period
- Comply with record-keeping, market rules, verification and other requirements in the regulation

What's Tradable in the Program?

- "Compliance Instruments" that can be traded include:
  - Allowances issued by ARB
  - Offsets issued by ARB
  - Allowances and offsets from other programs (e.g. WCI partner programs) if linkage is approved by the Board
  - Other compliance instruments if approved by ARB

Who Can Trade?

- Covered entities
- Other participants, e.g., wholesale marketers or other individuals who register in the tracking system could also buy, sell, or retire allowances and offsets
- Offset project developers

How Are Allowances Distributed?

- Most allowances freely distributed to covered entities at program start
  - Provide smooth transition and minimize leakage
- Small percentage auctioned in 2012
  - Auction floor price of $10 in 2012
- Auction increases in 2015 as fuel suppliers are added and transition assistance declines
- Use of revenue to protect consumers and further goals of AB 32

Industry Allocation

- Allocation strategy allows growth and minimizes leakage
- Individual facilities receive free allowances based on an emissions efficiency benchmark
  - Based on an assumed efficiency equal to 90% of the average emissions intensity for each industry
- Staff working to finalize benchmarks as part of 15-day changes

Electricity Allocation

- Free allowances to utilities for the benefit of their ratepayers and to achieve further GHG reductions
- Recognize early actions already taking place to reduce GHG emissions
- Acknowledge different emissions intensity profiles of California utilities
- Method for allocating allowances to utilities part of 15-day changes

How Does the Program Design Control Costs of Compliance?

- Inherent trading flexibility
- Three-year compliance periods
- Banking
- Allowance reserve
- Offsets
- Linkage

What is the Allowance Reserve?

- Allowances from the cap deposited into an account at the beginning of the program
  - 4.6 percent of total allowances from 2012-2020
- Covered entities may buy reserve allowances at specified prices quarterly
- Balances environmental integrity and risk of high prices

What Are Offsets and How Are They Used? (1)

- An offset is a credit for a verified emission reduction from a source outside the cap-and-trade program
- Offsets reduce emissions in sectors not easily reached through the cap-and-trade program or other regulatory means

What Are Offsets and How Are They Used? (2)

- Reductions must be real, additional, quantifiable, permanent, verifiable and enforceable
- Offsets must result from compliance offset protocols
- A covered entity may cover no more than 8% of its emissions using offsets

When Will There Be Approved Compliance Offset Protocols? (1)

- Four compliance offset protocols are included with the cap-and-trade regulation
  - Livestock Manure (Digester) Projects Protocol
  - Urban Forest Projects Protocol
  - U.S. Ozone Depleting Substances Projects Protocol
  - U.S. Forest Projects Protocol

When Will There Be Approved Compliance Offset Protocols? (2)

- Staff propose additional protocols be evaluated and adopted in 2011
- Kick-off meeting in February 2011 to identify projects types for next round of protocols

Is There a Process for Allowing Existing Offsets in the Program? (1)

- Proposed regulation include a process and criteria for accepting “early action” offsets from qualified existing offset projects
  - Brings in initial supply of offsets
  - Allows existing offset projects to transition to the compliance program
- Includes protocols developed by CAR for four project types

What Is the Role of International Offsets?

- Framework established for accepting sector-based offset credits from developing countries
  - Staff not proposing to approve any sectors or programs at this time
- Staff proposes first sector to be considered is international forestry
  - Reducing Emissions from Deforestation and Forest Degradation (REDD) at the subnational sectoral level
  - MOU between Acre (Brazil), Chiapas (Mexico), and California to develop recommendations for REDD specific requirements

How Does California Link with Other Programs?

- Regulatory action that requires Board approval
- Allowances and offsets from linked programs could be used for compliance in California
- Staff will evaluate linkage with Western Climate Initiative (WCI) partners
  - Some partners are on track to implement their programs by 2012
  - Rulemaking for potential WCI linkage in 2011

How Does Program Design Ensure Market Integrity?

- All traders must register in the cap-and-trade tracking system
- The tracking system provides a chain of custody for allowances and offsets that can be used in the program
- Balance need for transparency and safeguards to prevent market manipulation
- Purchase and holding limits

How Will ARB Ensure Compliance and Enforce the Regulation?

- Registration, reporting and third-party verification requirements
- Program designed to encourage compliance
- Covered entities must surrender compliance instruments for a portion of their emissions each year starting in 2013

What Analyses Did ARB Perform for the Cap-and-Trade Program?

- Environmental analysis (CEQA)
  - Functional Equivalent Document
- Economic analysis
  - Assesses effects of program on California economy
  - Compliance pathway analysis assesses emission reduction opportunities
  - Leakage assessment
- Co-pollutant emissions assessment
  - Evaluates potential for localized and cumulative emission impacts

Program Monitoring

- Monitor whether the program is meeting all the objectives of AB 32
- Staff will monitor program to ensure that it is not resulting in unanticipated outcomes
- Report to the Board on program status and implementation at least annually
- Conduct rulemaking prior to each compliance period if adjustments are needed

Amendments to the Mandatory Reporting Regulation

- Proposed changes to support the cap-and-trade program
  - Expands reporting to include fuel suppliers
  - 10,000 MT CO2e threshold to monitor emissions leakage below the cap
  - Abbreviated reporting for emissions <25k
- Aligns most reporting requirements with U.S. EPA regulation
  - Higher-tier methods to ensure accuracy
- Maintain 3rd-party verification

Next Steps

- 15-day changes
- Conduct additional public meetings
- Market tracking system development
- Evaluate additional offset protocols for adoption
- Propose linkages to WCI partners
- Develop market monitoring system

Proposed 15-Day Changes: Cap-and-Trade

- Clarify language in regulation
- Allocation method to individual utilities
- Benchmarks
- Voluntary renewable energy set-aside
- Consistency between compliance offset protocols and regulatory requirements for offsets

Proposed 15-Day Changes: Mandatory Reporting

- Clarify air districts as verification bodies
- No inclusion of methane fugitives from farms, livestock, or landfills
- Clarify 10K to 25K abbreviated reporting: fuel use for combustion, no process emissions
- Align with more recent EPA Rule changes, including oil and gas
- Other changes as needed

Staff Summary and Recommendation

- Approve resolution on cap-and-trade program, including four compliance offset protocols, with proposed 15-day changes
- Approve resolution on amendments to Mandatory Reporting Regulation, with proposed 15-day changes
- Direct staff to take all steps needed to finalize regulations