

# **PROPOSED AMENDMENTS TO THE CAP-AND-TRADE REGULATION**

## **Compliance Offset Protocols**

California Air Resources Board  
December 18, 2014

# Presentation Outline

- Background and Update
- Offsets Program Overview
- Regulatory and Protocol Development Process
- Proposed Amendments and Protocols
  - Rice Cultivation Projects Compliance Offset Protocol
  - Updated US Forest Projects Compliance Offset Protocol
- Environmental Analysis
- Potential 15-Day Changes
- Staff Recommendation

# Cap-and-Trade Background

- Cap-and-Trade one of a suite of AB 32 measures
- Multi-year development and consultation process
- Considered 2010 & Adopted in 2011
- Four previous amendments:
  - Enhanced implementation
  - Added Mine Methane Capture protocol
  - Updated existing protocols
  - Adjustments to allocation

# Greenhouse Gas Mandatory Reporting 2013 Reported Emissions

- Supports implementation of the Cap-and-Trade Program
  - First year of GHG emissions with a compliance obligation
- Overall 2013 emissions slightly lower than 2012
- Small increases in cement, refinery, and hydrogen sector emissions
- Largest decrease in electricity sector emissions
- State economy grew by 2 percent in 2013
- Adaptive Management
  - Staff commitment to evaluate facility specific increases

# Program Implementation Update

- Jan. 1, 2013: first time GHG emissions have a compliance obligation
- Eight California-only auctions to date
- Nov. 1, 2014: first annual compliance deadline
  - 100% of covered entities surrendered compliance instruments equal to 30% of 2013 calendar year emissions
- Nov. 25, 2014: successful first joint auction with Québec
- Nov. 1, 2015: first Compliance Period surrender deadline
  - 70% of 2013 emissions and 100% of 2014 emissions

# Role of Offsets in Cap-and-Trade

- Integral cost-containment mechanism
- Spur voluntary emission reductions in sectors not covered by the program
- Encourage the spread of clean, low carbon technologies inside and outside of California
- Provide environmental, social, and economic benefits
- Over 13.5 million compliance offset credits issued

# Offset Criteria

- Reductions must meet AB 32 criteria
  - Real, additional, permanent, quantifiable, verifiable, and enforceable
  - Additional = beyond regulation or what would otherwise occur
- Result from Board-adopted compliance offset protocols
  - Livestock Digester Projects
  - Ozone Depleting Substance Destruction Projects
  - U.S. Forest Projects
  - Urban Forest Projects
  - Mine Methane Capture Projects

# Previous Board Direction for Proposed Amendments

- Resolution 10-42:
  - Initiate a public process to review additional Compliance Offset Protocols
- Resolution 11-32:
  - Monitor offset protocol development and propose technical updates to adopted offset protocols, as needed
- Resolution 14-31:
  - Delay proposed updates to common practice values and adjustments to the classification of 'high' and 'low' site class productivity codes for U.S. Forest Protocol until December 2014



# Public Process for Proposed Amendments

- 3 public workshops
- 4 Rice Cultivation Protocol working group meetings
- 1 webinar on updates to U.S. Forest common practice values
- Discussion drafts released for both protocols
- 2 informal public comment periods
- Proposed regulatory package released for formal comment period in October 2014 included access to supplemental resources/documentation

# Proposed Amendments:

- Proposal to add a new Compliance Offset Protocol for Rice Cultivation Projects
- Proposal to add an updated Compliance Offset Protocol for U.S. Forest Projects
- Definitions
  - *Early Action Offset Project*: Clarify definition as it relates to U.S. Forest reforestation offset projects
  - *Intentional Reversal*: Modify definition to clarify how wildfire response is treated as applied to U.S. Forest projects

# New Compliance Offset Protocol for Rice Cultivation Projects

- First crop-based offset protocol considered by ARB
- Conventional rice cultivation practices serve ecological functions as man-made wetlands; but enhance methane production and emissions
- Rice Cultivation Protocol uses a De-Nitrification De-composition (DNDC) model to quantify greenhouse gas emissions
- Incentivizes modified practices that maintain yields and preserve ecological benefits
- Potential offset supply of 0.5 – 3 MMTCO<sub>2</sub>e through 2020

# New Compliance Offset Protocol for Rice Cultivation Projects

- 6 major rice-producing states: AR, CA, LA, MS, MO, & TX
- Protocol promotes practices that reduce methane emissions from rice cultivation
  - California Rice Growing Region
    - Switch from wet seeding to dry seeding
    - Early drainage in preparation for harvest
  - Mid-South Rice Growing Region
    - Cyclical wetting and drying of rice fields during the growing season
    - Early drainage in preparation for harvest

# New Compliance Offset Protocol for Rice Cultivation Projects

- Implementation
  - Utilize modeling methodologies that conservatively reduce computer resource requirements
  - Develop a web-based tool that reduces emissions modeling complexity for project operators
  - Create a pilot program to evaluate verification options
    - funded by ARB

# Updates to Existing Compliance Offset Protocol for U.S. Forest Projects

- Expands project eligibility to parts of Alaska
- Updates common practice values
- Adjusts high and low site productivity classification to align with updated common practice values
- Modifies and clarifies based on stakeholder input and lessons learned from implementation:
  - Project eligibility
  - Greenhouse gas emission reduction quantification
  - Reporting and verification requirements
- Reformats protocol to more closely follow standard regulatory format

# Environmental Analysis

- Environmental Analysis (EA) prepared for each of the Proposed Compliance Offset Protocols.
- CEQA Environmental Checklist used to identify and evaluate environmental resource areas that may be impacted.
- Conclusions:
  - no significant adverse impacts from the new Rice Protocol
  - same impacts from the updated Forest Protocol as original Protocol analyzed in 2010

# Potential 15-day Changes

- Additional public workshops/technical working group meetings in 2015 for both rice and forestry
- Rice Cultivation
  - Early Action
  - De-Nitrification De-composition (DNDC) model update
- Forestry
  - Revise approach for establishing baseline for improved forest management project on public lands
  - Continue to refine clarifications to even-aged management requirements
  - Incorporate wood product class and mill efficiency data for Alaska



# Staff Recommendation

- Approve the proposed resolution that directs staff to:
  - Make any modified regulatory language available for public comment as part of 15-day process;
  - Evaluate all comments received including comments on the Environmental Analysis and prepare written responses; and
  - Return to the Board in 2015 for consideration of staff's written responses to comment raising significant environmental issues, the final Environmental Analysis and the final regulatory amendments and protocols proposed for adoption.