

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

American Carbon Registry  
Cap-and-Trade Symposium

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California Air Resources Board  
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# Status Update

- Cap-and-Trade Regulation effective January 1, 2012
- Regulatory Amendments effective September 1, 2012
- Emissions Compliance January 1, 2013
- Amendments for Linkage approved by ARB Board April 2013 (regulation effective October 1, 2013)
- Additional Amendments and Offset Protocols
  - Discussion Draft (July 15) and Workshop (July 18)
  - Anticipated Board consideration October 2013
- California and Québec linked program January 2014

# 2013 Amendments

- Implementing Board direction from fall 2012
  - Resource shuffling
  - Cost containment
  - Legacy contracts
  - “But For” CHP
  - University transition assistance
  - Benchmarks
  - WTE and Military exemptions
- Allocation
  - “True up” allowances for compliance
  - Additional transition assistance
  - Allocation to Natural Gas Utilities

# 2013 Amendments (2)

- Additional amendment to aid program implementation
  - Market rules
  - Auction and trading requirements
  - CITSS requirements and information reporting
- Offsets
  - New protocols (Mine methane capture and Rice cultivation)
  - Air district roles
  - Clarifications and corrections

# Offset Program Status Update

- Compliance Offset Projects Listed
  - 10 by both registries
- Early Action Offset Projects Listed
  - 55 by ARB
    - Listings updated first Wednesday of each month
    - First regulatory verification received
    - First ARB offset credits likely issued this summer

# Verifiers and Verification Bodies

- Five training sessions have been held with attendance of
  - 97 verifiers
  - 19 Offset Project Registry staffers
  - 6 Offset project operators/consultants
- Potential for additional training this Fall and Next Spring:
  - For More information:  
<http://www.arb.ca.gov/cc/capandtrade/offsets/verification/verification.htm>

# Verifiers and Verification Bodies

- 12 Verification Bodies accredited
- 68 Offset Verifiers accredited (most recent class pending)
  - 59 Lead verifiers
  - 29 Livestock project specialists
  - 26 U.S. Forest project specialists
  - 25 ODS destruction project specialists
  - 19 Urban Forest project specialists
- For more info:

<http://www.arb.ca.gov/cc/capandtrade/offsets/verification/verification.htm>

# New Protocol Development

- New protocols
  - Rice Cultivation Projects
  - Mine Methane Capture Projects
- Both protocols primarily target methane emissions reduction
- CH<sub>4</sub> facts:
  - 100-year GWP is 21 (AR2)
  - Short-lived gas with a lifetime of 12 years
  - Is the primary component of natural gas



# Linkage

- California and Québec staff worked together to develop regulatory modifications to enable linkage
- Staff proposed modification to the regulation to link with Québec in May 2012
- ARB approved linkage on April 19
  - Effective date of January 1, 2014
- Implementation
  - Joint tracking system for issuing and trading allowances and offsets
  - Platform for joint auctions
  - Coordinated market monitoring and surveillance
  - Processes for day-to-day market operation
  - November 1 report to Governor on linkage implementation status

# May Auction Results

- 2013 Vintage Allowances
  - Quantity of Allowances Offered: 14,522,048
  - Quantity of Allowances Sold: 14,522,048
  - Total Qualified Bids Divided by Total 2013 Allowances Available for Sale: 1.78
  - Auction Reserve Price: \$10.71
  - Settlement Price Per Allowance: \$14.00
  - Allowances Purchased by Compliance Entities: 90.22%
- 2016 Vintage Allowances
  - Offered: 9,560,000
  - Sold: 7,515,000 a \$10.71
  - Allowances Purchased by Compliance Entities: 86.49%

# How is Cap-and-Trade Working?

- California ISO reports \$6.15 wholesale electricity price increase after Cap-and-Trade implementation (based on modeling)
  - $\$14/\text{allowance} \times 0.43 \text{ tonne/MWh} = \$6.02$
- What does this mean?
  - Generators get paid \$6 more for electricity sold into CAISO now than in 2012
  - Renewable (e.g. solar) has no obligation, therefore +\$6 benefit
  - Fossil generator has obligation (e.g. coal~\$12/MWh) therefore has deficit based on GHG emissions
  - Coal generator essentially “pays” solar generator \$6/MWh
- **Cap-and-Trade works!**

# Next Steps

- Cap-and-Trade Regulation Discussion Draft Workshop  
July 18, 2013
- Board consideration of Cap-and-Trade Regulation amendments  
at October 2013 Board Hearing

# Additional Information

- Cap-and-Trade Program

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

- Join the cap-and-trade list serve

[http://www.arb.ca.gov/listserv/listserv\\_ind.php?listname=capandtrade](http://www.arb.ca.gov/listserv/listserv_ind.php?listname=capandtrade)

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