

California Cap-and-Trade Program

Update on the Compliance Offset Program

California Air Resources Board
July 24, 2014

Presentation Outline

- Cap-and-Trade Program background
- Overview of offset program design
- Offset program implementation update
- Update on international offsets and sector-based crediting

Suite of AB 32 Measures

- Building and appliance energy efficiency standards
- Transportation
 - Tire Pressure Regulation
 - Low Carbon Fuels Standard
 - Heavy-Duty Trucks
 - Mobile Air Conditioners (DIY Cans)
 - High Speed Rail
 - SB 375
- Electricity
 - Renewable Portfolio Standard
 - California Solar Initiative
 - Combined Heat and Power
- High Global Warming Potential Gasses
 - High GWP Consumer Products
 - Refrigerant Management Program
 - SF6 Leak Reduction
- Stationary Sources
 - Shore Power
 - Semiconductor Manufacturing
 - Landfill Methane Capture
 - Energy Efficiency Audits for Industrial Sectors
- **Cap-and-Trade Program**

Cap-and-Trade Regulation Development

- Multi-year development and consultation process
- December 2010 – Board endorsed the proposed regulation with modifications
- October 2011 – Board adopted Final Regulation Order
- July 2012 – Board adopted implementation-related amendments
- April 2013 – Board adopted Québec linkage amendments
- April 2014 – Board adopted implementation-related amendments and Mine Methane Capture Offset Protocol

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

California's Leadership

- Considered the leading standard for offset programs
- Successfully withstood a legal challenge on program design
 - Currently under appeal
- Rigorous environmental standards
 - Reductions must meet AB 32 criteria, resulting in real greenhouse gas reductions; and
 - Offset projects and offset project implementation must meet all statutory and regulatory requirements
 - ARB currently investigating to ensure some ozone depleting substances projects were in conformance with federal regulations

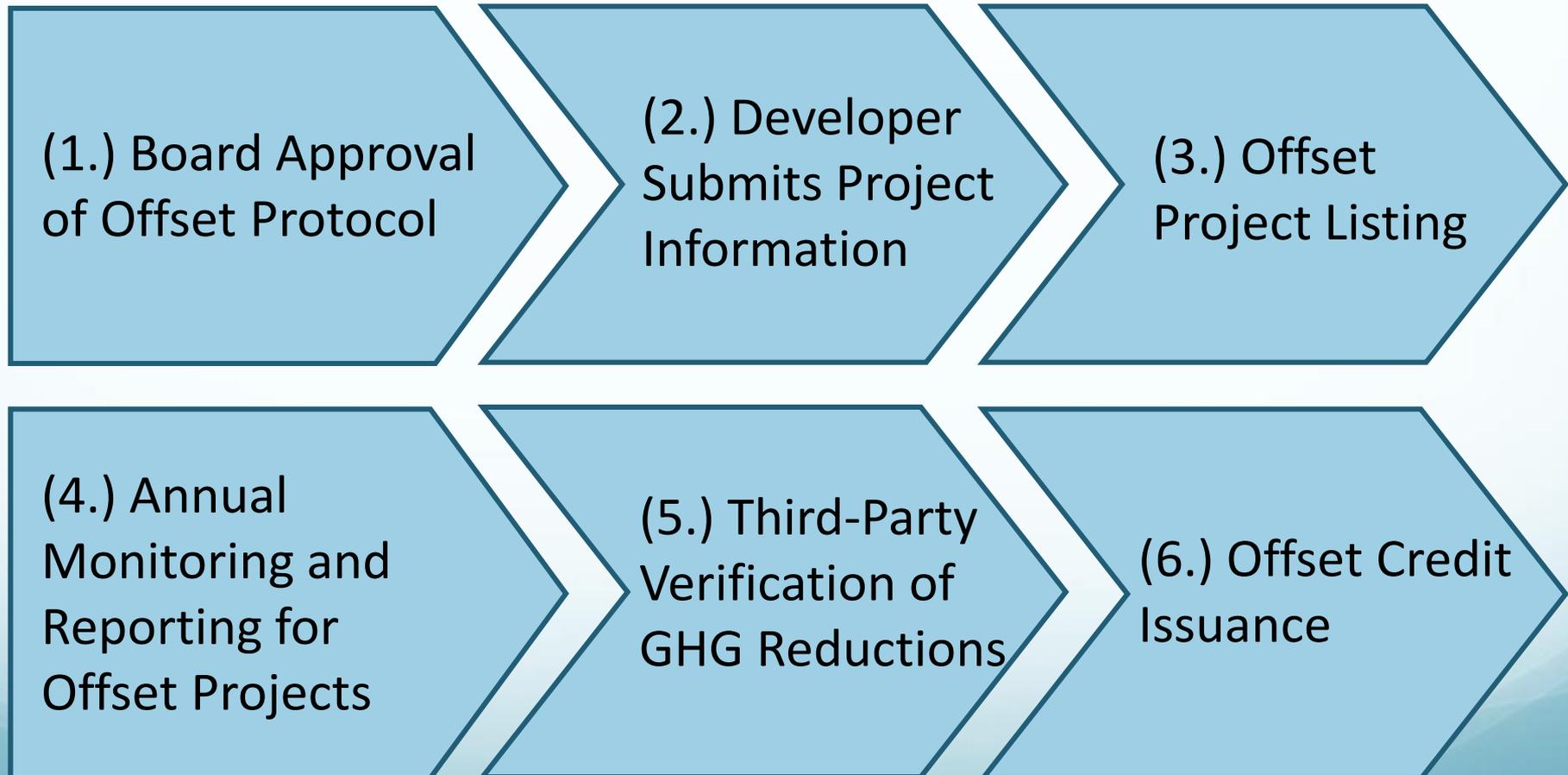
Program Design: Offset Criteria

- Reductions must meet AB 32 criteria
 - Real, additional, quantifiable, permanent, verifiable, and enforceable
 - Additional = beyond regulation or what would otherwise occur
- Offsets must result from:
 - Board-adopted compliance offset protocols
 - Offsets issued by a linked jurisdiction – Québec
 - Offsets from an approved sector-based crediting program
- Offset credits cannot be issued for GHG emission reduction activities already covered under the cap
- Only ARB can issue compliance offset credits
 - All compliance offset credits are created, traded, and retired in ARB's market tracking system

ARB Compliance Offset Protocols

- Forestry, Urban Forestry, Ozone Depleting Substances, and Livestock Digesters
 - Originally developed for voluntary offset market
 - Modified by ARB for compliance offset market
- Mine Methane Capture
 - Developed by ARB staff with stakeholder consultation
- Current Protocol Development
 - Developing Rice Cultivation
 - Adding Alaska to U.S. Forest Projects Protocol
 - Coordinating with Western Climate Initiative (WCI) partners
- All new protocols must be approved by the Board after a stakeholder process

Implementation: Issuance of Offset Credits



Offset Verification Program

- ARB has accredited nearly 100 third-party offset verifiers
 - Must take offset specific training and pass exit exams
 - Responsible for conflict of interest requirements
- ARB is notified before offset verification begins so that ARB can plan its audit and oversight activities
 - ARB staff conduct site visits and perform desk reviews

Offset Project Registries

- ARB has approved Offset Project Registries (OPR) to assist ARB in administering parts of the compliance offset program
 - Leverages existing external resources and ensures offset supply in the early years of the program
 - OPRs conduct audits of verification bodies to supplement ARB oversight activities
 - OPRs are subject to ARB audit and oversight authority
 - OPRs cannot adopt compliance offset protocols on behalf of ARB

Status Update: Projects and Issuance

- ARB has listed early action and compliance offset projects:
 - Over 90 early action offset projects for transitioning voluntary credits into compliance offsets
 - Over 75 compliance offset projects developed under ARB's Compliance Offset Protocols
- ARB has issued over 11 million compliance offsets to date
 - Offset Project Information is available at:
<http://www.arb.ca.gov/cc/capandtrade/offsets/issuance/issuance.htm>

Update on Sector-Based Crediting

Sector-Based Crediting

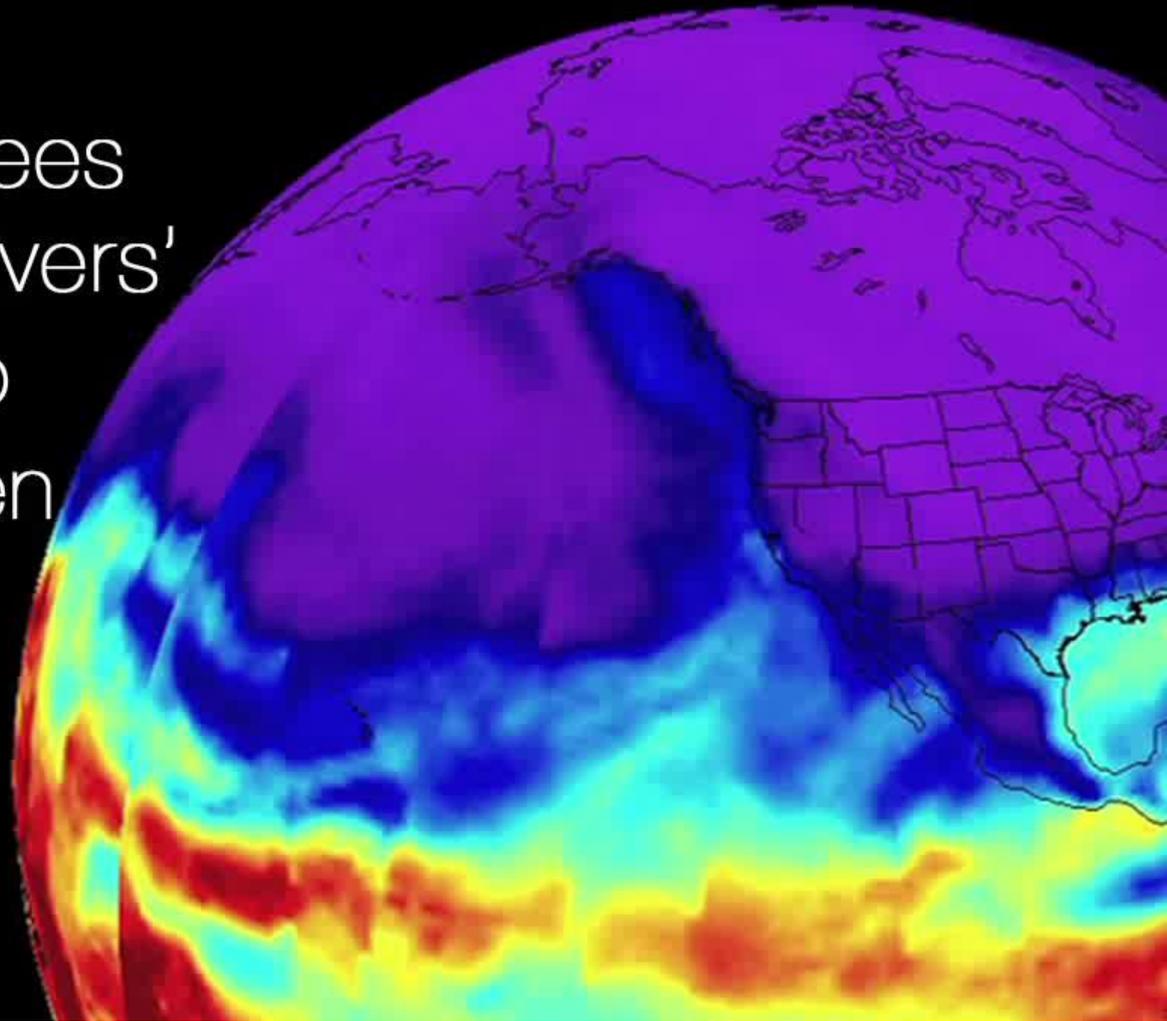
- Sector-based Offset Crediting Program recognized in Regulation:
 - “[A] GHG emissions-reduction crediting mechanism established by a country, region, or subnational jurisdiction in a developing country and covering a particular economic sector within that jurisdiction.”
- Reductions measured across an entire economic sector, rather than on a project-by-project basis.
- Regulation allows sector-based offsets for compliance if the Board finds they meet rigorous AB 32 criteria
- There are currently no approved sector-based offset programs

Sector-Based Crediting

- Benefits
 - Low-emissions planning across entire jurisdiction
 - Ensures additionality because crediting begins after meeting performance standard
 - May have positive leveraging effects to reduce emissions in other economic sectors
 - Ensures enforceability within the jurisdiction
 - Jurisdiction-scale protects against leakage
 - Source of offsets to support cost-containment for the Cap-and-Trade Program
- Cap-and-Trade Regulation sets sector-based offset limit within overall offset quantitative usage limit:
 - 1st & 2nd Compliance Periods—2% of total obligation
 - 3rd Compliance Period—4% of total obligation

Sector-Based Crediting for Tropical Forests

NASA's AIRS Sees
'Atmospheric Rivers'
Bringing Rain to
Drought-Stricken
California



additional transformations of the rural development model

History of ARB's Engagement on Tropical Forests

- 2008 Scoping Plan
- Governors' Climate and Forests Task Force
- Placeholder provisions in Cap-and-Trade Regulation
- REDD Offset Working Group
- 2014 Scoping Plan Update

Governors' Climate and Forests Task Force (GCF)

- California helped create the GCF in 2008 as a forum for information and best practice exchange
- Currently comprised of 22 subnational jurisdictions, covering more than 20% of the world's tropical forests
- Each jurisdiction is enacting legal and policy structures to improve forest management
- Annual meetings to share experiences between members who are developing jurisdiction-level offset programs

REDD Offset Working Group (ROW)

- Technical expert working group developed to provide recommendations to Acre (Brazil), California, and Chiapas (Mexico)
- ROW Recommendations published in 2013
 - Policy Considerations
 - Community engagement and social safeguards, legal framework, effective government oversight and enforcement
 - Technical Considerations
 - Setting jurisdiction-wide forest inventory baselines, tracking system and registry, robust quantification and accounting

Ongoing Evaluation of Sector-Based Crediting

- ARB staff continues to evaluate the ROW recommendations
- Ongoing engagement with the GCF (as indicated in the Scoping Plan Update)
- Next steps would include: continued evaluation, public workshops, SB 1018 linkage assessment and findings, and rulemaking

Québec Program Update

- California and Québec Programs linked beginning January 1, 2014
- Staff directed to provide Board updates to changes in linked programs at least 6 months prior to changes taking effect in a linked program
- 2014 Québec Program Updates
 - Québec making regulatory amendments to harmonize with recently adopted California amendments

Next Steps

- New protocols for Board consideration late 2014
 - Rice Cultivation Protocol
 - Forestry protocol updates to include Alaska
- Continue to identify additional compliance offset protocols
 - Focus on in-state offsets, recognizing challenges

Additional Information

- California Cap-and-Trade Program:
<http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>
- Compliance Offset Program:
<http://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm>