

Public Meeting

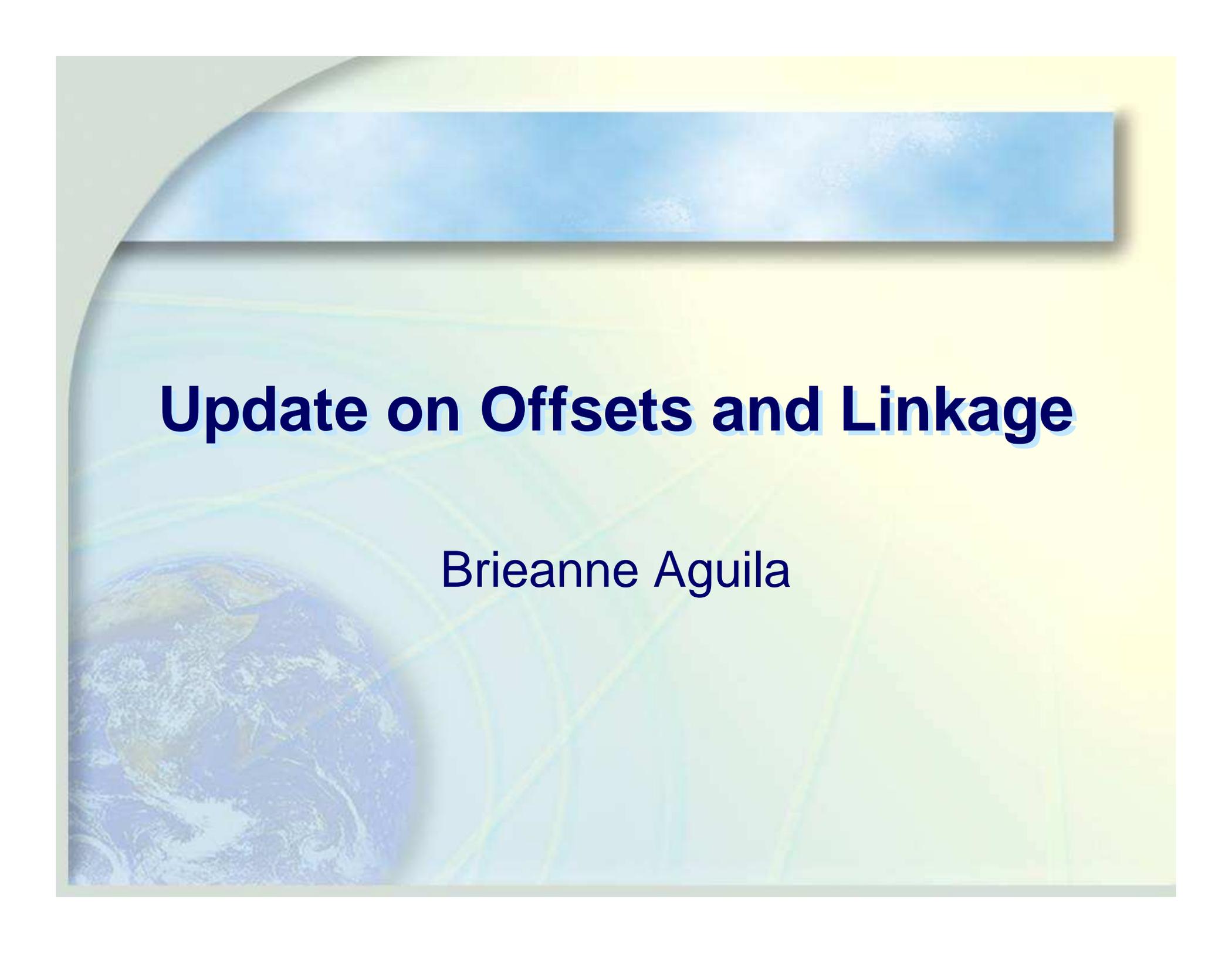
Update on Offsets and Linkage in a California Cap-and-Trade Program

June 22, 2010

California Air Resources Board

Comments

- Questions during the workshop can be sent to: ccworkshops@arb.ca.gov
- Written comments on preliminary staff thinking are requested by July 13th; please submit comments to:
<http://www.arb.ca.gov/cc/capandtrade/comments.htm>

The background features a stylized globe on the left side, partially obscured by a blue horizontal bar at the top. The globe shows continents and oceans in shades of blue and green. Overlaid on the globe and the rest of the slide are several thin, curved lines in light blue and green, creating a sense of motion or connectivity. The overall color palette is soft and pastel, with a gradient from light yellow at the top to light blue at the bottom.

Update on Offsets and Linkage

Brieanne Aguila

Offsets and Linkage

- Offsets
 - Strict criteria (AB 32 requirements)
 - Limited use
 - No geographic limits
- Linkages
 - Strict criteria for linked program
 - Requires Board action (regulation)
 - Agreement of cooperation with linked program

Types of Offset Credits

Two types of offset credits:

1. Offset credits issued by ARB

- Pros: high integrity, alleviates many enforcement concerns
- Cons: may limit supply, may require more effort to develop and approve protocols

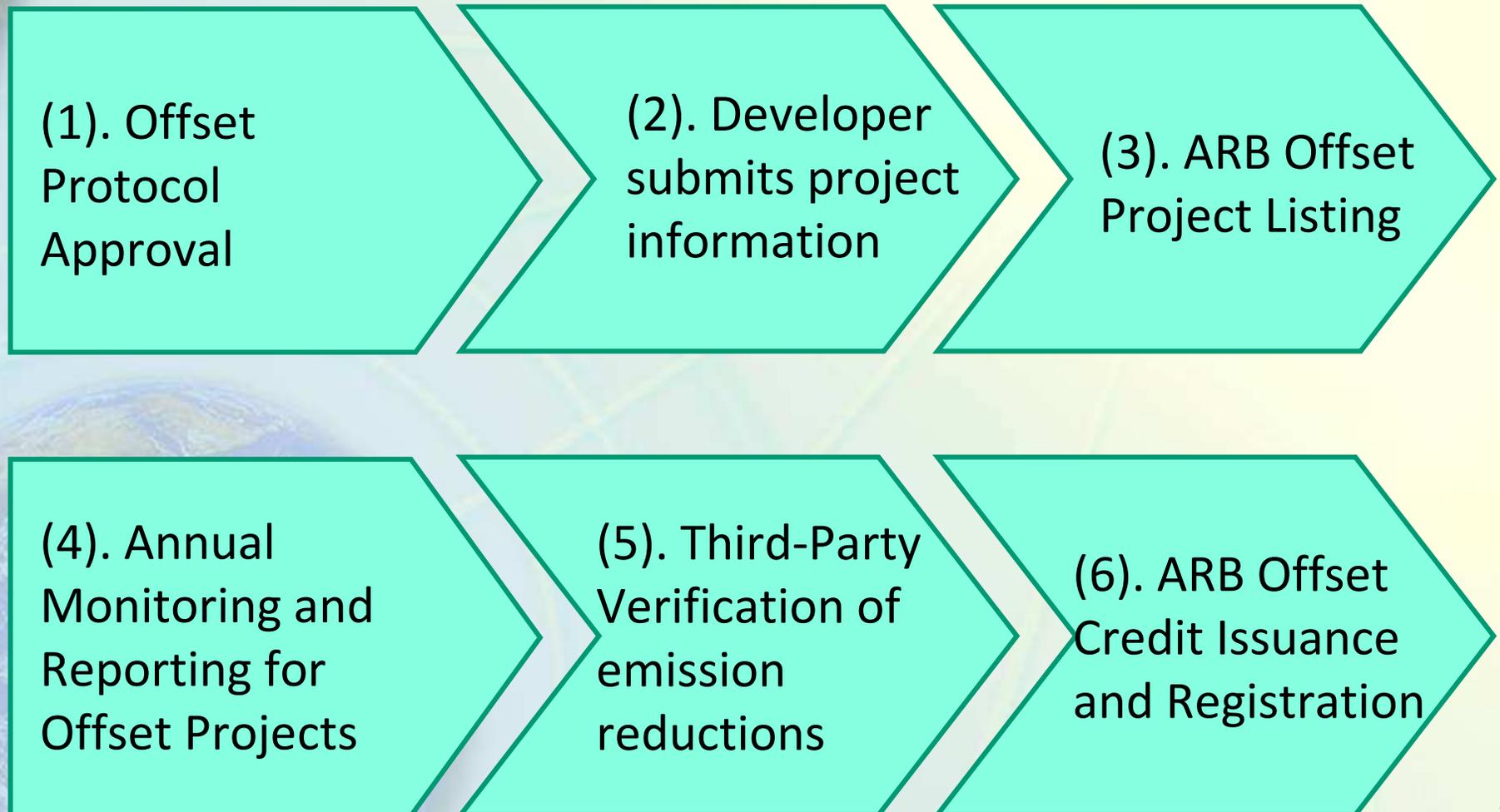
2. Linkage: Offset credits issued by an external program and accepted/approved by ARB

- Pros: potential large supply, may be less staff intensive than developing/approving individual protocols
- Cons: stakeholder concern over environmental integrity, enforcement challenges

Staff Thinking: Process for Offset Credits Issued by ARB (1)

- Offset project operator (OPO) uses an approved ARB offset protocol
- OPO submits project description and all required information to ARB
- ARB lists “proposed” offset project information on publicly available and transparent webpage
- OPO reports on project activities
- OPO utilizes an ARB-approved third-party verifier to verify emission reductions from their project
- ARB reviews verification statements before issuing offset credits for verified reductions

Staff Thinking: Process for Offset Credits Issued by ARB (2)



Staff Thinking: ARB Protocols

- Board would approve protocols for ARB-issued offset credits
- Approved protocols would consist of standardized methods for estimating project baselines and determining additionality
- AB 32 exempts protocols from rulemaking provisions of the Administrative Procedures Act
 - Offset protocols will not be contained in the regulation

Staff Thinking: Requirements for ARB Protocols

- Offset protocols approved by the Board establish the following for the applicable project type:
 - Activity baselines and additionality based on the principle of conservativeness and defined business-as-usual
 - Project boundaries and the reductions or removals that are calculated within that boundary and for how long (crediting periods)

Current Process for ARB Protocol Development

- ARB is in the process of developing offset protocols that could be used for compliance
- Staff workshop tomorrow, June 23rd
- Protocols include:
 - Forestry sector
 - Manure management digesters
 - Urban forests
 - Ozone depleting substances

Staff Thinking: Additionality

- For additionality, ARB is starting with AB 32 provision:
 - The emission reduction must be “in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any greenhouse gas emission reduction that otherwise would occur”
HSC §38562(d)(2)
- No strict financial additionality test required for all project types due to performance-standard approach
- Evaluating requirements for regulatory additionality benchmarking

Staff Thinking: Crediting Periods and Renewals

- Range for crediting period length specified in regulation, actual length established within that range in the ARB-approved protocol
- Non-sequestration projects
 - 5-10 years with the possibility for 1 renewal period
- Sequestration-based projects
 - 10-30 years with unlimited renewal possibilities as long as project meets program criteria

Staff Thinking: Eligibility Date/ Start Date

- Offset projects going through the ARB process would need to commence after 12/31/2006
 - In the case of linkage, the eligibility/start date may differ from this, depending on evaluation of the individual program

Staff Thinking: Geographic Location for ARB-Issued Offsets

- Offset projects must be located in the United States, Canada, or Mexico for ARB to issue credits for the project
 - In the case of linkage, depending on the external program, the geographic location may not be limited to North America

Staff Thinking: Ensuring Permanence (1)

- ARB is still working on definition of permanence
- Ensuring permanence requires either:
 - 1.that reductions or removals are not reversible or
 - 2.when reductions or removals may be reversible
 - mechanisms are in place to replace any reversed carbon
 - must ensure credited reductions endure for a period comparable to the atmospheric lifetime of anthropogenic CO₂ emissions

Staff Thinking: Ensuring Permanence (2)

- *Illustration*
 - Offsets allow 1 ton of CO₂ emissions from capped sources for each ton sequestered
 - If sequestered ton is released while the emitted ton is still in the atmosphere, net increase in emissions

Staff Thinking: Verification

- AB 32 requires a regulation for the verification of compliance offsets
- Verification program under MRR will be expanded to include offset verification
- Require verification by an ARB-approved third-party verifier
- May include project specific verification requirements

Requirements for Linkage

- Approval by Board after rulemaking process
 - The regulation will include linkage to programs once they are established
- Linkage agreement
- Process for suspension, probation and de-linkage

Staff Thinking: Process for Linkage

- For ARB to accept compliance instruments from external programs the program would need to be approved by the Board
- Regulatory action that requires a rulemaking process including a public process and associated staff reports
- Each external program would be evaluated based on criteria established as part of the cap-and-trade rulemaking

Staff Thinking: Potential Short-Term Linkage Opportunities (1)

Western Climate Initiative Partners

- Some Partners may be ready to implement a program that CA can link to by 2012
- ARB will discuss these opportunities for linkage in the staff report
- May be a potential to include linkage language in the C&T regulation in 2011

Staff Thinking: Potential Short-Term Linkage Opportunities (2)

Recognizing Early Action in California

- ARB may consider allowing CAR credits issued in CA under 3 voluntary protocols to be used for compliance
 - Forestry 2.1 and 3.0
 - Livestock 2.0
 - Urban forestry 1.0
- Recognizing early action and the need for early supply, ARB could allow vintages from 2005-2014
- Recognize that credits have undergone CAR verification but additional ARB desk review may be needed to meet regulatory requirements

Staff Thinking: Potential Medium Term Linkage Opportunities

International RED (reducing emissions from deforestation) credits

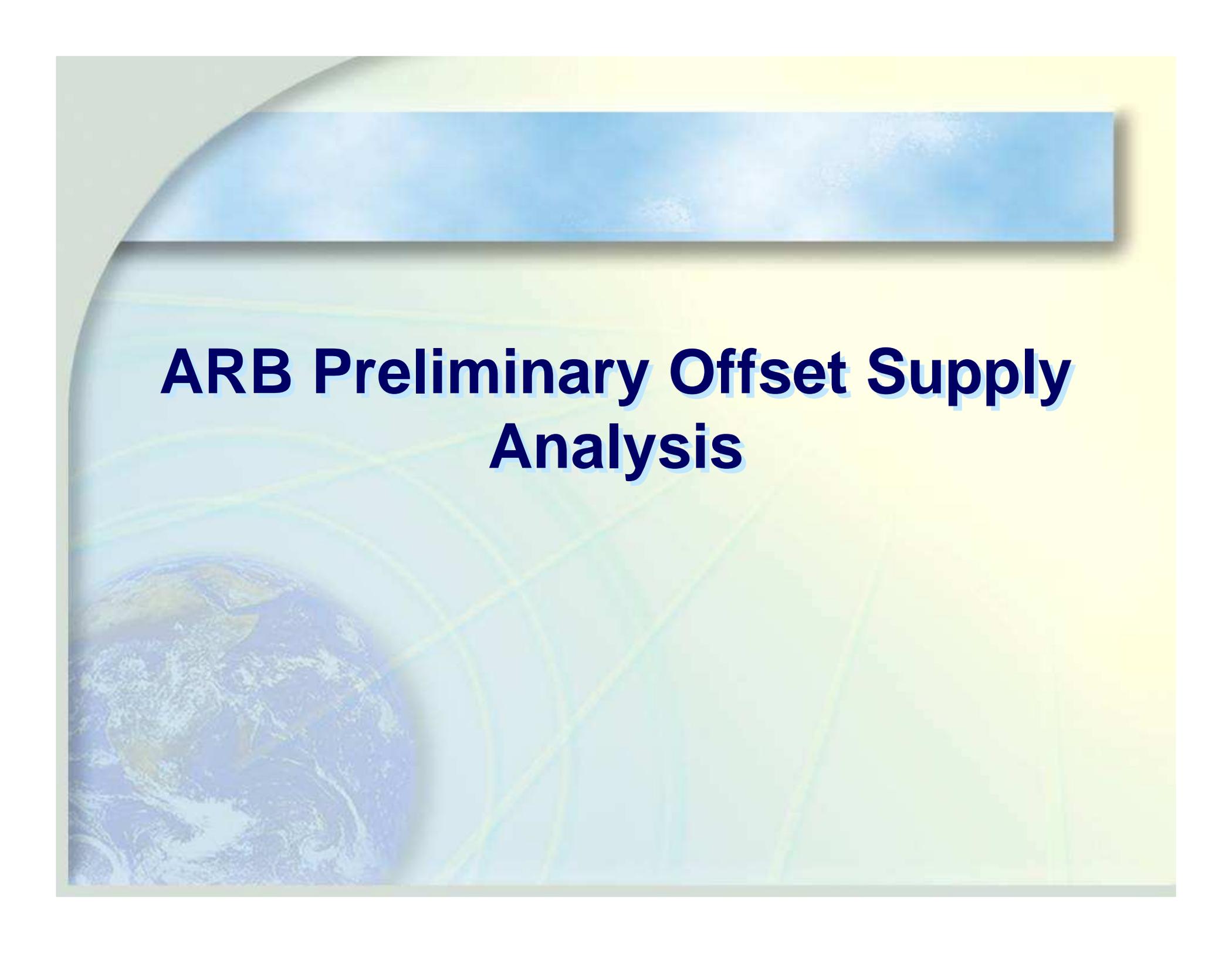
- CA signed MOU in 2008 with states and provinces to address deforestation and climate change
 - Established GCF (Governor's Climate Task Force)
- ARB could link to GCF Partners to bring in international RED credits
- CA continuing to work with GCF Partners to develop readiness and MRV to get Partner programs up and running
- Credit supply could begin in 2014 with linkage to 1 GCF Partner
- Continue to work on potential linkage in 2011

Additional Linkage Opportunities

- ARB will continue to evaluate additional linkage opportunities and look at other existing programs

Staff Thinking: Enforcement and Liability for Offset Credits

- ARB may take enforcement action against third-party verifiers, offset project developers, and offset users
- Offsets determined to be ineligible after issuance or acceptance would result in revocation of the credit for compliance use
- In the case of a reversal, covered entities that surrender offsets later deemed ineligible are responsible for replacing the lost tons (medium-term reversal mechanism)
- Another option is to establish a buffer pool
 - Can be used as a long-term reversal mechanism and combined with buyer liability

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ARB Preliminary Offset Supply Analysis

Areas for Potential Offset Supply

ARB evaluating following supply options:

- Supply available through protocols currently being developed by ARB
- Supply that could be brought in through additional protocols ARB could evaluate
- Supply that could be brought in through linkage to external programs

Supply forecasts for ARB Protocols

ARB Protocol	2012-2014 total	2012-2020 total	Cost/ton
Forestry incl. IFM (CA only)	2.1 MMT	6.3 MMT	\$7-10
Urban Forestry (U.S.)	0 MMT	0 MMT	\$100+
Methane Digesters (U.S.)	0.9 MMT	2.7 MMT	\$7-10
ODS Ozone Depleting Substances (only outside CA)	30 MMT	90 MMT	\$5-10
TOTAL	33 MMT	99 MMT	\$5-10

Values based on CAR estimates

Staff Thinking: Additional Areas for ARB Protocol Development

Some protocols that ARB could consider developing in 2011 include:

- Projects that could occur in CA and may have limited supply potential
 - Fugitive emissions from natural gas transmission
 - Waste water sector
- Projects that could not occur in CA and may have large supply potential
 - Coal mine methane
 - Landfills (direct regulation in CA)

Staff Thinking: Additional Areas for Potential Offset Supply (1)

- Western Climate Initiative
 - Some Partners may be issuing offsets under their programs beginning in 2012
 - Rely on WCI jurisdiction's regulatory authority for enforcement and oversight
- Clean Development Mechanism
 - ARB would be selective with the types of CDM that would be allowed to come into CA, for example:
 - Credits from Least Developed Countries (LDCs)
 - Projects that reduce black carbon emissions
 - Supply for CA unknown due to competition with EU
 - Monitoring and enforcement challenges for ARB

Staff Thinking: Additional Areas for Potential Offset Supply (2)

- Additional GCF Partner linkages
 - Uncertain of timing for implementation
 - Programs could be ready by 2015
 - Potential large supply for CA
 - Monitoring and enforcement challenges for ARB
- Additional credits from voluntary programs
 - ARB would need to ensure compliance grade criteria and technical accuracy of voluntary programs and protocols
 - For voluntary programs there would need to be regulatory verification and enforcement – presents oversight and enforcement challenges
 - Potential large supply

Staff Thinking: Offset Supply

- 1. Continue to develop four protocols and take them to the Board this year for adoption**
- 2. Evaluate additional protocols to take to the Board for adoption in 2011**
- 3. Propose linkage to some existing programs in the cap-and-trade regulation this year**
- 4. Evaluate developing programs for linkage opportunities in 2011**

Next Steps

- Compliance Offset Protocol Workshop
June 23
 - Propose four protocols for Board adoption coincident with cap-and-trade program
- Workshop on International RED development in early July
- Continued discussion on enforcement

For More Information...

- ARB's Cap-and-Trade Web Site
 - www.arb.ca.gov/cc/capandtrade/capandtrade.htm
- To stay informed, sign up for the Cap-and-Trade listserv:
 - www.arb.ca.gov/listserv/listserv_ind.php?listname=capandtrade
- Western Climate Initiative
 - www.westernclimateinitiative.org