Role of Offsets under AB 32

Program Design Technical Stakeholder Workgroup
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Program Design Stakeholder Meetings

February 6	Overview and analytic approach
February 29	Scope and Point of Regulation
March 17	Allocation
April 4	Offsets
April 25	Cost containment
May 5	**Scenarios Workshop**
Early May	Enforcement
June 16	To be decided

Outline

- Background
- Definitions
- Possible usage of offset credits
- Establishing eligibility
- Establishing usage rules
- Questions (Recap)

Send questions to ccplan@arb.ca.gov

Background: Market Mechanisms

- Program design stakeholder meetings working on how to design an effective cap-and-trade system for possible inclusion in the Scoping Plan
- Prior to inclusion of market-based approaches, ARB must:
  - Consider potential for cumulative and localized impacts
  - Prevent increase in criteria or toxic emissions
  - Maximize additional environmental and economic benefits

Offsets

- A GHG offset is a GHG emission reduction …
  - beyond what otherwise would have happened because of regulation and common practice
  - that generates a credit that can be used to meet a regulatory compliance obligation or a voluntary commitment
- Under AB 32, the reductions must be real, additional, quantifiable, permanent, verifiable and enforceable
  - H&S Code §38562(d)(1-2)

Possible Uses of Offset Credits

- Voluntary reductions
- California approved offsets under AB 32
  - As part of cap and trade
  - As flexible compliance outside of cap and trade
- California acceptance of offsets through linkage with other states and programs

Today's discussion will focus on the second bullet

Key Questions for Today's Discussion

- Should California allow use of GHG offsets for compliance under AB 32?
- If so, what general rules should apply to their use?

Possible Advantages of Offsets

- May achieve an emissions reduction target at lower cost
- Extends program to sources otherwise not covered by the AB 32 program
- Can spur innovation and technology development for uncapped sources
- Can allow for setting a lower cap

Possible Disadvantages of Offsets

- May reduce incentives for innovation of capped sources
- May create administrative complexities
- May create perceived inequities
- May reduce environmental integrity due to uncertainty about additionality
- May result in fewer co-benefits realized in California

Offset Project Eligibility

- Project approval process
  - Top-down vs. Bottom-up approach
- Quantification process
  - Standards-based vs. project-by-project approach
- Project type
  - Forestry, dairy methane, etc.
- Project timing
  - Start date and project length

Project Approval Process

Approaches for approving eligible project types

- Bottom-up approach
  - Project types proposed and submitted by project developers and then evaluated by the program authority
- Top-down approach
  - Project types identified by the program authority and then used by project developers
- A hybrid approach

Project Approval Approach

- Advantages of a bottom-up approach:
  - allows for more low-cost reduction opportunities
  - may allow for inclusion of many smaller sources of emissions
  - can encourage innovation
- Advantages of a top-down approach:
  - provides clear signal to participants
  - reduced administrative costs over time
  - investment in high priority sectors/projects (e.g. those with co-benefits)

Quantification Process

Two approaches for quantifying emission reductions

- Project-by-project approach
  - Emission reductions are based on individual project assessments (including baseline and additionality)
- Standards-based approach
  - Emission reductions are based on general criteria and emission factors
- A hybrid approach

Quantification Approach

- Advantages of a project-by-project approach:
  - very rigorous and precise
  - fully accounts for individual project circumstances
- Advantages of a standards-based approach:
  - may be easier to monitor, verify, and enforce
  - may be easier to determine leakage potential
  - review process may be more transparent
  - Avoids costs of defining baselines for every project

Project Type Eligibility

Eligibility criteria may include:

- Whether additionality can be determined
- If quantification is possible
- Which sources are under the cap
- Administrative simplicity
  - For regulators
  - For project developers
- Contributions to long-term goals
- Co-benefits

Examples of Project Types

Examples of project type eligibility in existing offset programs

- **CDM**: All **except** nuclear energy and biological carbon sequestration other than reforestation/afforestation
- **JI**: All **except** nuclear energy
- **New South Wales GGAS**: electricity supply (incl. renewables), energy efficiency, reforestation/afforestation, fuel switching, industrial processes, fugitive emissions
- **RGGI**: landfill methane, SF6 reductions, afforestation, end-use efficiencies from natural gas, methane manure management

Project Timing

- Start date
  - When should the start date be for recognizing emission reductions as an offset?
  - Should offsets program be a vehicle for recognizing early reductions?
- Crediting period
  - How long should the crediting period be?
    - CDM: either one ten-year period or three seven-year periods
    - RGGI: two ten-year periods
- Expiration
  - Should an expiration date for the validity of credits issued be imposed?

Possible Restrictions on Offset Use

- If offsets are accepted for AB 32 compliance, California could establish limits on their use:
  - Limits on volume used for compliance
  - Discounting and unit exchange rates
  - Banking
    - **Will be discussed at the April 25th stakeholder meeting on cost containment**
  - Geographic limits

Quantitative Restrictions

- Advantages
  - May limit uncertainties about environmental integrity
  - Ensures emission reductions from capped entities
  - Reductions and investments may stay in the state/region
    - However, climate change is a global problem
- Disadvantages
  - Could forgo emission reductions with lower costs
  - May limit supply of offset projects
  - May create uncertainties for project developers, who are unsure about demand for their reductions

Discounting and Unit Exchange Rates

- Should California discount credits from offset projects?
  - Advantages
    - Can account for statistical variance of measurement and calculation methods
    - Credits only realized benefits
  - Disadvantages
    - May penalize truly additional projects
    - May discourage program participation

Some Options for Project Locations

- Within California only
- In jurisdictions with specific agreements with California
  - As part of a regional trading program, such as WCI
  - Other jurisdictions that may enter into an MOU
- Globally

Project Locations

- Advantages of in-state only projects:
  - Can enable financial flows to stay within the state/region
  - Other benefits from offsets can be channeled to the state/region
- Advantages of broader scope:
  - Can increase access to a larger and more established offsets market
  - Can support adoption of low-carbon technologies and sustainable development

Linkage

- California could also accept credits issued by other trading programs
  - Unilateral linkage
    - Allow the use of credits or allowances from other cap-and trade programs to be used for compliance
  - Bilateral linkage
    - Allow credits and allowances to be fully fungible in both systems
- **This topic will be discussed at the April 25th stakeholder meeting on cost containment**

Examples of Offset Programs

- EU ETS
  - No internal offsets; links to CDM and JI
  - Modest quantitative limits on offsets use
- CDM/JI
  - Bottom-up approach
  - Primarily focused on developing countries
- RGGI model rule
  - Top-down approach; five project types
  - Primarily in-region but with price triggers that allow for broader inclusion
  - volume limit on credits for compliance
- MAC recommendation
  - Top-down approach
  - No geographic or quantitative limits

Questions for Stakeholders

- Should California have an offsets program for compliance purposes?
- What should the project approval and quantification process be for approving projects?
- Should there be quantitative limits on the use of offsets for compliance purposes? If so, how should the limits be determined?
- Should California establish geographic limits or preferences on the location of projects that could be used to generate credits within the offsets system? If so, what should be the nature of those limits or preferences?