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California | U.S. Forestry Offset Projects (AB 32)

Last updated: 8 March, 2016
Category [Developed Country Programmes](#) [10]
Type:
Carbon accounting and reporting
Scale:
Project level
Scope:
Enhancement
Forest management
Deforestation
Date created 2006
Geographical Eligibility:
United States (not including Alaska and Hawaii)

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California's *Global Warming Solutions Act* (AB 32) aims to reduce emissions to 1990 levels by 2020

economy wide. AB 32 contains a cap-and-trade mechanism that places an allowance budget on "covered entities" and provides a mechanism for trading allowances, as well as the use of offsets, including credits generated by domestic forestry projects.

Introduction

In 2006, the State of California passed the *Global Warming Solutions Act* (AB 32) that authorised the Air Resources Board to adopt market mechanisms to achieve GHG reduction goals. Subsequently, a cap-and-trade system was created that applies a cap on some entities beginning in 2013, with other sectors brought under the cap in 2015. The cap-and-trade system is expected to generate approximately 22.5% of the total emission reductions required under the Act. The Air Resources Board (ARB) is responsible for implementing the cap-and-trade programme. Under the California cap-and-trade scheme, forest carbon is one of four allowed offset types. Current regulations allow 8% of an emitter's compliance obligation to be met through the use of offsets. This amounts to a maximum of about 200 MMtCO2e of offsets over the three compliance periods: 25.8 MMtCO2e in the first compliance period 2013-2014, 91.8 MMtCO2e in the second compliance period from 2015-2017, and 83.1 MMtCO2e in the third compliance period from 2018-2020.

Offsets from forest projects must follow ARB's Compliance Offset Protocol for US Forest Projects (October 2011). The ARB compliance protocol was adapted from the Climate Action Reserve's Forest Project Protocol Version 3.2 (August 31, 2010). The Climate Action Reserve (formerly the California Climate Action Registry) is a non-profit organisation established by state legislation in 2001 for the purpose of promoting early voluntary actions to reduce greenhouse gas emissions. The Reserve developed the offset protocols now used by the ARB cap-and-trade programme, and has issued a total of 16 million "early action" offset credits that are potentially eligible for use in ARB's programme; 9.2 million of those credits come from U.S. domestic forestry projects (The Reserve also functions as an official "offset project registry" helping to administer the ARB's offset programme).

The following overview covers domestic project-based offsets for California's cap and trade programme. In the future, offsets may be allowed from international forest programmes through provisions in the regulations that allow sector-based crediting, if approved by ARB.

Design Features

[Scope](#) [11]

Reforestation, Improved Forest Management and Avoided Conversion.

[Scale](#) [12]

Project-level.

[Reference Levels](#) [13]

ARB Regulations for California's cap-and-trade system require all compliance offset protocols to "establish a project baseline that reflects a conservative estimate of business-as-usual performance or practices". For domestic forestry projects, reference levels are determined according to the ARB Compliance Offset Protocol for U.S. Forest Projects. A business-as-usual baseline must be modeled over a 100 year period for onsite carbon stocks as well as baseline harvested wood products. Baseline modeling must conform to legal constraints, financial constraints, and constraints imposed by predefined common practice criteria (for forest management projects) or default land-conversion

rates (avoided conversion projects). The crediting period for offset projects using the Forest Offset Protocol is 25 years, but crediting periods may be renewed any number of times.

Additionality [14]

Additionality is required by general California regulatory requirements, as well as additional requirements contained in the approved Compliance Offset Protocol. The California regulation requires: (i) a regulatory surplus test; (ii) demonstration that emission reductions would not otherwise occur in a conservative business-as-usual scenario; (iii) demonstration that the project commencement date is not earlier than 31 December 2006; and (iv) that emission reductions exceed the baseline calculated in accordance with the relevant Compliance Offset Protocol. The U.S. Forest Offset Protocol, in turn, requires a two-part additionality test including (i) legal requirement test, such that GHG reductions or removals must be above and beyond any GHG reductions or removals that would result from compliance with any federal, state, or local law, statute, rule, regulation, or ordinance, including any court order or other legally binding mandates including management plans (such as Timber Harvest Plans) that are required for government agency approval of harvest activities, and (ii) a performance test indicating that the project goes beyond common practice or business-as-usual as defined in the protocol for different project types.

Leakage / displacements [15]

Leakage is managed through mandatory accounting of 'secondary effects,' including activity shifting and a standard deduction for market leakage in harvested wood products (20% of difference in harvested volume between baseline and project scenario). In addition, to guard against shifting harvests to a landowner's other properties, the Forest Offset Protocol requires land owners to demonstrate, for all of their landholdings, that they maintain a minimum of 40% canopy cover, have obtained certification from a recognised program (SFI, FSC, or Tree Farm System), or that they operate under a renewable long-term management plan that demonstrates harvest levels that can be permanently sustained over time and is sanctioned and monitored by a state or federal agency.

Permanence / reversals [16]

Permanence is defined as 100 years (following the last issuance of offset credits for emissions reductions or removals from the project); therefore monitoring and verification activities must be maintained for at least 125 years (i.e. 100 years of monitoring and verification beyond the 25 year crediting period). Recognizing that both natural and human-induced reversals can occur, forest owners are required to identify and quantify the risk of reversals from different agents based on project-specific circumstances. The resulting risk rating determines the quantity of ARB offset credits that the project must contribute to the Reserve Buffer Pool to insure against reversals. Unintentional reversals are mitigated through the ARB buffer account (i.e., ARB offset credits are retired from the buffer account to cover such reversals). Intentional reversals (e.g., those caused by overharvesting) must be compensated for by the project owner through the retirement of ARB offset credits (not buffer pool credits), pursuant to the regulatory rules.

Social measures or requirements [17]

The Forest Offset Protocol does not contain safeguards explicitly targeted to social issues; such safeguards were deemed unnecessary in the U.S. domestic context.

Environmental measures or requirements [18]

Projects must follow requirements for the recruitment and retention of structural elements (lying

dead wood and standing dead trees) important for ecosystem functions. Projects are required to manage native forest species and must maintain age class diversity (no more than 40 percent of forested stands can be in age classes less than 20 years of age). Projects must also maintain or increase carbon in live trees (stocks may not be depleted through harvesting, even if doing so would not cause a reversal). Finally, projects must fulfill all applicable local, regional and national requirements on environmental impact assessments that apply.

[Procedural measures or requirements](#) [19]

The Forest Offset Protocol requires that each time the project is verified, evidence must be presented that the project is in compliance with all relevant laws and regulations.

[Monitoring and Reporting](#) [20]

The Regulations define monitoring and reporting requirements, and the protocol further elaborates on requirements, based on the project type. Monitoring activities consist primarily of updating a project's forest carbon inventory. ARB requires a complete inventory of carbon stocks to be reported each year. This complete inventory must be maintained and updated throughout the project life. Annual monitoring reports may be used as the basis for desk review verifications. However, verifiers must conduct site visits and more in-depth reviews of project data at least every six years. Monitoring is required for a period of 100 years following the final issuance of any ARB or registry offset credits to an offset project to guarantee permanence requirements.

[Registry](#) [21]

California has outsourced some parts of the administration of its compliance offset programme, including the use of Offset Project Registries (OPRs) to help facilitate the listing, reporting and verification of projects using approved protocols. Currently two such registries have been approved, the American Carbon Registry and Climate Action Reserve. The OPRs review project submissions and may issue Registry Offset Credits. These credits may then be converted to ARB Offset Credits usable by entities within the cap-and-trade program upon approval of a project by ARB. In addition, "early action" credits issued by the OPRs to projects registered under the Climate Action Reserve's Forest Project Protocol (Versions 3.2 and earlier) may be eligible for conversion to ARB Offset Credits.

[Process](#) [22]

Forest Projects must be verified at least every six years. Offset Project Data Reports must be verified (including a site visit, during which the verifier will check if sample plots are measured accurately) by an ARB accredited verification body according to the schedule and regulation requirements. Verification teams must include: At least one Professional Forester, at least one individual with demonstrated competence in forest biometrics, at least one individual with demonstrated knowledge of and competence in the use of forest growth and yield models, and an ARB-accredited Forest Offset Project Specialist. A Forest Project is considered automatically terminated if the Offset Project Operator or Authorised Project Designee chooses not to report data and undergo verification at required intervals.

All standards in

Developed Country Programmes ▼

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Related news

- [Could California Make or Break REDD?](#) [25]
- [California issues first forest offset credits under compliance protocol, sealing legal commitment to long-term forest protection](#) [26]

External Links

[Assembly Bill No. 32](#) [27]
[California Code of Regulations: California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms](#) [28]
[California Compliance Offset Program](#) [29]
[California Environment Protection Agency, Air Resources Board, Compliance Offset Protocol – US Forest Projects (October 2011)](#) [30]
[Climate Action Reserve Forest Project Protocol and Supplementary Documents](#) [31]

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