



Finding the ways that work

## How High Quality Offsets Keep Costs Low and Drive Environmental Co-benefits in California's Cap-and-Trade Regulation

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California's climate and clean energy law (AB 32) uses mandatory regulations and a flexible market-based cap-and-trade regulation to achieve its goal of reducing climate pollution to 1990 levels by 2020. This cutting-edge package is inspiring innovation, driving investments and rewarding low-cost solutions for fighting climate change.

### How Offsets Fit into California's Cap-and-Trade Regulation

California's cap-and-trade regulation is designed to reward solutions that cut pollution fastest and at the lowest cost. A declining overall cap on pollution puts a price on carbon that informs investments being made by regulated businesses. Since pollution reduction opportunities within capped sectors are limited by definition, the cap-and-trade program also allows regulated entities to use verified reductions from uncapped sectors (offsets) to meet up to 8% of their compliance obligations in any one year. Only offsets arising under pre-approved project protocols are able to be used. Currently only four protocols have been approved, though at least two others are under active consideration.



### Offsets Keep Overall Program Costs Low

Since offsets allow regulated companies to take advantage of reductions being made elsewhere in the economy, a cap-and-trade program with offsets allows investors to search out and implement a wide array of low cost projects. Accordingly, having offsets in the program dramatically cuts overall program costs even when the overall use is restricted to 8% of obligations. Reputable projections from California's Air Resources Board (the AB 32 oversight body) and third-party analysts suggest that a California cap-and-trade program that includes offsets will likely cost less than \$20/ton of emissions, while a program without offsets may cost more than \$100/ton of emissions. Based on these scenarios, even offsets limited to 8% of obligations can reduce statewide program compliance costs by more than \$200 billion between 2013 and 2020.

### High-Quality Offsets Can Achieve Wide Ranging Co-benefits

A wide range of offset project types are in development. A number of these offsets can reduce global warming pollution while simultaneously delivering habitat restoration, water quality, air quality and local community benefits. Agricultural offsets projects are a prime example of the wide-ranging benefits that can be achieved by offsets.



### A Brief View of the Benefits from Agricultural Offsets

California's agricultural industry has a wide array of well-documented opportunities to provide climate benefits by changing crop management and fertilizer application practices. For example, by making small changes to water and straw management in rice fields, farmers can save water, cut methane emissions from decomposition, and gain carbon credit revenue to boost profits. Additionally, by changing common fertilizer application practices to maximize nitrogen use efficiency when and where needed, farmers can reduce runoff and water pollution, avoid nitrous oxide emissions, and save money on fertilizer costs— all while maintaining crop yields.

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