The Role of Offsets in California's Cap-and-Trade Regulation
Frequently Asked Questions

April 2012

The success of California's climate and clean energy policy (AB 32) depends on finding every opportunity to reduce climate pollution. Offsets help unlock the potential of California's cap-and-trade program, the cornerstone of AB 32. The program gives regulated entities the choice to reduce pollution directly or by investing in offsets. Real reductions and additional environmental benefits will result from having a range of offset types that are scientifically verifiable.

What is an Offset?

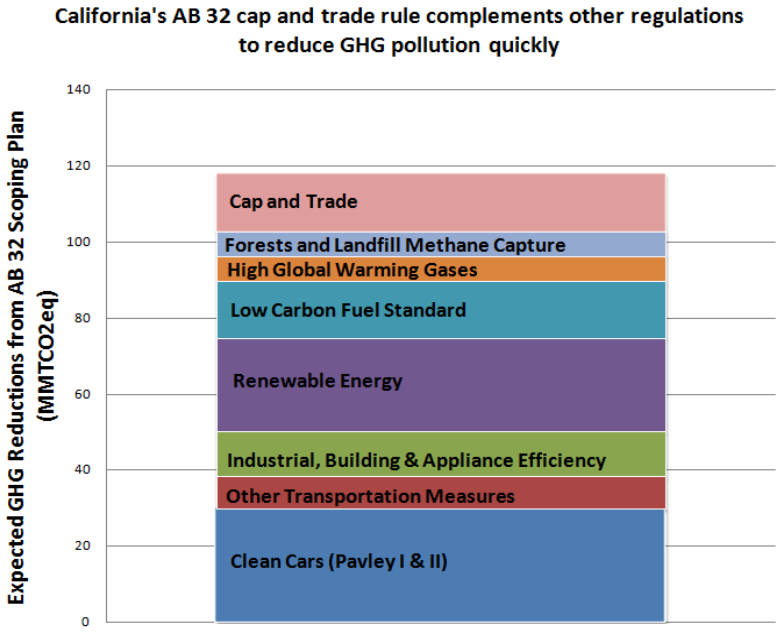
According to the California Air Resources Board (ARB), who is overseeing the program, "offset credits are greenhouse gas (GHG) emission reductions or sequestered carbon that meet regulatory criteria and may be used by an entity to meet up to eight percent of its triennial compliance obligation under the cap-and-trade program. Each ARB offset credit is equal to 1 metric ton of carbon dioxide equivalent (MTCO2e) and can only be generated through implementation of an offset project for which ARB has adopted a compliance offset protocol." Offset markets are a way for companies to meet their greenhouse gas (GHG) reduction obligations through reductions occurring outside their facilities. They must be real and verified reductions that would not have occurred without the program.

What are the Benefits of Offsets and What Role Do They Play?

Offsets are a critical piece of a cap-and-trade market. They can deliver vast economic and environmental benefits for landowners, farmers and foresters who participate in the offsets market by documenting emissions reductions and generating sellable credits. Offsets have tremendous potential to inspire innovation in these and other sectors of the economy that are large sources of climate pollution that lack the necessary emissions measurement systems for inclusion in the program. California has four approved protocols and is expected to approve additional ones. This would enable farmers and foresters to sequester carbon in a verified way and sell their reductions as offsets to regulated entities that need cost-effective ways to meet compliance obligations.

How Do Offsets Fit Into California's Overall Pollution Reduction Effort?

California has two long-term goals for pollution reduction: 1) to reduce greenhouse gas emissions to1990 levels by 2020 under AB 32, and 2) to reduce pollution 80% below those levels by 2050. Cap-and-trade is responsible for achieving approximately one fifth of the reductions under AB 32. Offsets equal to 8% of capped emissions are, therefore, a small slice of the reductions that occur under AB 32.



What Offsets Protocols Have Been Approved?
California has adopted four compliance offset protocols that may be used to generate offset credits. Additional compliance offset protocols will be considered as part of future market-development activities.

1. U.S. Forest Projects
2. Livestock Projects
3. Ozone Depleting Substances Projects
4. Urban Forest Projects

Is there a Limit to How Many Offsets Can Be Used to Meet Compliance Obligations?
California's cap-and-trade regulation limits the number of offsets that capped entities may use to meet their compliance obligations. The limit is 8%. This creates a path for high-quality, low-cost emissions reductions while ensuring the majority of reductions are made directly by the largest polluters.

Are Most Reductions Likely to Be Made Directly by Entities Covered by the Program?
The expected compliance scenario for California's cap-and-trade regulation will most likely result in a moderate to high percentage of reductions being made by regulated entities that make direct, on-site reductions.

Is it Likely that Companies will Use Offsets to Achieve "Up to 85%" of Obligations?
The "up to 85%" assertion is based on unrealistic assumptions that dramatically overestimate the percentage use of offsets. It assumes that business as usual (BAU) emissions (i.e. what would happen without AB 32) will not exceed projected levels. It is widely accepted that, if the program wasn't in place, emissions would grow significantly beyond current levels by 2020. This means that higher BAU estimates would decrease the percentage of reductions coming from the same volume of offsets. It also assumes allowance prices will reach thresholds that result in companies buying credits from the allowance reserve pool. These estimates are higher than what is expected and assume companies will fully exhaust the reserve pool. Lower, more accurate estimates would decrease the amount of reserve allowances circulating in the program, resulting in a lower aggregate quantity of offsets being used. Finally, EDF's economic modeling found that including offsets in the program makes it less likely prices will reach $50 per ton due to the role they play containing costs. State predictions, in fact, estimate offsets will cost $21 per ton. More realistic assumptions such as higher BAU emissions projections, lower-term prices, and lower use percentages will reduce the 85% figure. Based on the compounding uncertainty embedded in each assumption, the 85% figure should be seen as meaningless.

What Business Rationale Makes it Unlikely that a Large Percentage of Reductions Will Come from Offsets?
To reach 85% of reductions from offsets, every entity would have to use its entire 8% of offsets. Financial considerations are one reason this is unlikely to happen. Direct reductions will often be less costly making it more economical to meet obligations by improving energy efficiency or switching fuels.

For more information, please contact James Fine, Economist, jfine@edf.org, (916) 492-4698 or
Tim O'Connor, Attorney, toconnor@edf.org, (415) 293-6132.