Center for American Progress

Carbon Offsets 101

What Are Carbon Offsets?

Carbon offsetting is the act of mitigating greenhouse gas emissions by purchasing credits from projects and programs that reduce emissions from sectors currently unregulated by the cap on emissions. In the current offset market, consumers, for example, may purchase carbon offsets to compensate for greenhouse gas emissions caused by personal air travel or driving, thereby “neutralizing” their carbon emissions.

Carbon offsets are typically measured in tons of CO_2-equivalents, or CO_2e, and are bought and sold through a number of international brokers, online retailers, and trading platforms. Most companies charge $5 to $20 per ton of CO_2e offset.

The Problem with Offsets

A barrage of critical news reports has raised serious questions about the integrity of the carbon offsets that are sold in the unregulated U.S. market. It turns out that some offset dollars are being collected for projects that already have been financed independently, arguably doing no additional environmental good. And even when offset dollars appear to be invested wisely, consumers have no way to check whether projects are actually producing the promised reductions in greenhouse gas emissions.

Because there is currently no system to regulate offsets, the voluntary market is awash in competing protocols and standards, and confusion reigns. Some providers are committing to follow specific protocols or standards, such as the Kyoto Protocol’s Clean Development Mechanism, which has received criticism for granting legitimacy to dubious technologies. No U.S. government standards currently exist, however, and buyers have a limited ability to check whether such promises are being kept.

The Solution

Congress should craft a wise carbon offset certification process as part of a mandatory cap-and-trade system. A well-designed carbon offset program must ensure that entities selling offsets can meet rigorous, uniform standards and verify their emission reductions. The Environmental Protection Agency should therefore step in and outline consistent methodologies and protocols for offset certification in order to ensure the program’s success.

In a recent CAP publication, "Getting Credit for Going Green" we outline recommendations for a robust offsets program to ensure real and verifiable emission reductions. A main component of this program includes establishing two categories of offsets, Tier I and Tier II:

- Tier I offsets—otherwise known as Compliance Credits—will be certified by the EPA and will meet stringent measurement, verification, and permanence requirements via the application of rigorous EPA methodologies and protocols.
  - Polluting industries will only be able to meet 15 percent of their emission requirements with Tier I compliance credits. These credits would count as reductions contributing to meeting the overall cap on U.S. emissions.
  - Individuals will also be able to purchase these Tier I compliance credits in the voluntary market. Because individuals are not regulated entities under the cap, these Tier I compliance credits would count as additional emission reductions beyond those required by the cap.
- Tier II offsets will comprise the Targeted Carbon Reduction Program. This Tier II program would include program- or project-based activities that may not satisfy the stringent tests required to earn Tier I compliance credits but still reduce emissions. These activities would earn other financial rewards, including tax credits, rebates, grants, or other financial incentives.
  - Emission reductions resulting from the Tier II program would count as additional emission reductions beyond those required by the cap.
  - Once Tier II programs develop a track record and more data has been collected on their resulting emission reductions, some of them may qualify to move up into Tier I, where they can generate marketable compliance credits. In this way, Tier II may serve as an "incubator" of projects and programs that ultimately may qualify for compliance credit status under Tier I.

One of the benefits of such an offset program is that it can encourage emissions reductions in sectors that are not currently covered under a cap-and-trade program. This type of comprehensive offset program would provide more information about the nature and scope of unregulated emissions and set the stage for their potential official inclusion in a cap-and-trade program at a future date.

A strictly regulated offset program would provide entities and individuals who are interested in reducing their carbon footprints with a new, highly credible means to do so. It will encourage both offset buyers and sellers to become more efficient by ensuring that credits provide a real carbon offset and are retired from the market once they are purchased, thereby making them unavailable for use by other regulated entities under the cap. This prospect provides a strong rationale for moving forward with a stringent two-tiered offset program as part of a mandatory cap-and-trade scheme.