

TREATMENT OF EARLY AGRICULTURAL ACTORS IN A FEDERAL CAP AND TRADE

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Early actors are defined as those who engaged in greenhouse gas mitigation activities (i.e., changes in management designed to reduce emissions of greenhouse gases or increase sequestration of carbon) before the initiation of a mandatory federal cap and official offsets program.

A number of entrepreneurial members of the agricultural community have stepped forward to engage in the early voluntary carbon transactions underway in the United States. Changes in management taken by these early actors include, but are not limited to, switching to or maintaining zero tillage (“no-till”) or conservation tillage, using new technology to capture methane for improved animal waste management, and afforesting or reforesting buffers or larger landscapes. The reduction in greenhouse gas emissions or gains in sequestration predicted or measured for these changes in management is the desired outcome and the commodity that has been produced and traded. These trades have been either in the early voluntary market, often through bilateral trades with brokers or aggregators who worked with retail offset outlets, or institutional (corporate) buyers, or with the Chicago Climate Exchange (CCX) which has many of these same players.

In these early years of the voluntary market agriculture and forestry mitigation is used as offsets, sold to major emitting entities to offset their emissions, as they will also likely be used in any mandatory cap and trade policy in the United States. The major legislative proposals in Congress have all included provisions for offsets, and given the recent engagement of the agricultural community in the legislative process, agriculture is likely to be part of any future offsets program in some way. This means that these sectors will not be capped. Thus any mitigation in these sectors is “extra” and can be sold and used to offset emissions from covered (capped) entities.

To date, most offsets produced for the voluntary market were contracted for sale before they were produced. Since these have been sold to emitting entities they are no longer owned by the offset producer. With a mandatory federal market for offsets appearing more likely and the regulatory guidelines gaining clarity, agricultural offset producers may want to hold some or all of the offsets they develop for sale into the higher value mandatory market. How could this work? This paper will provide a short answer to this question given the state of the current debate in the U.S. Congress and the current positions of the key stakeholders in this debate (the buyers: mainly large utilities; the sellers: the agricultural and forestry community; and the brokers: the offset developers and providers).ⁱ

Some of the major legislation that has been debated in the Senate clearly provides compensation for early uncapped actors such as agriculture, either by setting aside funding to compensate them or by letting holders of this mitigation into the compliance offsets market.ⁱⁱ However, new legislation in the House does not explicitly credit early activities in the uncapped sectors.ⁱⁱⁱ Given the growing engagement of stakeholders in the legislative process, it seems likely that they will communicate their desire to have early actors compensated in development of new policy proposals.

There are two critical questions to answer about how early actors are likely to fit into the federal program:

1. Who qualifies as an early actor?
2. How might early actors be credited?

Who May Qualify as an Early Actor

Eligibility for an early action program is likely to depend on three main factors.

(1) When the project occurred:

- If the project occurred before climate legislation and offsets were being seriously discussed and before the onset of the voluntary market, they may not be considered eligible for an early action program. For capped entities S.2191 The Lieberman-Warner Climate Security Act of 2008 (LW) used 1994 as the start date for early actors. Many involved in the voluntary offsets market suggest that mitigation activities outside of capped sectors began around 2002 or 2003 and thus this should be the start date for early action from these activities.
- If a project occurred after the selected start date for crediting but before enactment of a U.S. policy, it would likely be eligible for an early action program.
- If a project occurred after enactment (e.g., 2009) but before offsets begin being credited for compliance (e.g., 2012) they would likely either qualify for an early action program or be merged into the compliance offset program directly.

(2) Whether the project was part of normal (non-climate motivated) operating practices (i.e., is it additional¹?): Depending on how additionality and baseline are determined in a new federal program, pre-existing activities, those that were occurring before they were registered in any early program, may be considered non-additional. If a project based historical use method is used to determine additionality, a farmer that had been using no-till for years and had not registered this activity in the pre-federal registries would be considered non-additional. If a performance standard based on the sector/activity type average is used, this same farmer's project may be considered additional if he is in the minority of wheat farmers using no-till in his region. If an early activity is considered non-additional given the final regulatory definition of additionality, it might not receive early action credit. However, non-additional activities that store sequestered carbon may seek some type of federal support for the positive outcome of their activities (see below for more detail).

(3) Whether any credits generated by the activity have been sold and used to offset emissions by another entity: If the new mitigation created by a project is sold or contracted for sale it cannot be sold again and the buyer, rather than the seller, would be eligible for early action credit. In the voluntary market much of the mitigation produced to date has been sold as offsets in the CCX or other bilateral deals with major emitters.

¹ Additionality means the extent to which greenhouse gas mitigation benefits are above and beyond what would have occurred in the absence of offset project implementation. See paper by on additionality prepared for this meeting by Jan Lewandrowski.

How Early Actors May be Credited

This section covers the key factors affecting how mitigation produced by early actors may be credited and the primary policy mechanisms that can be used for crediting.

Factors that May Affect Crediting

- (1) Registration status – If the mitigation project and what it produces is assessed, recorded, and validated it will be possible to determine how much early credit is deserved for whoever owns the mitigation. If the project and mitigation produced were not registered, it may be more difficult. Again, how additionality is defined matters. If project based additionality is used registration is more important than if a performance standard is used.
- (2) Accounting methodology used to assess the mitigation project – Not all accounting methodologies are equal. Certain standards, such as those developed for the new regulatory programs developing under the Regional Greenhouse Gas Initiative (RGGI) or the California Clean Air Registry (CCAR); or those developed by EPA’s climate leaders program; or in general those considered as rigorous as the final federal standards, may receive preferential status in the way they are treated in the federal programs.
- (3) The type of activity – It is still unclear which activities will be eligible for the offsets program versus compensated through an allocation program. While manure management and afforestation/reforestation seem fairly certain to be eligible for offsets, other activity types with more difficult accounting issues such as reduced tillage practices and forest management could still go either way.

Policy Mechanisms for Early Actor Crediting

There are two primary mechanisms under discussion and in use in the legislative proposals introduced to date (they are often used in combination).

- (1) Setting aside proceeds from the selling of allowances (auctioned or allocated) to compensate early actors for their good deeds and
- (2) Allowing unsold mitigation directly into the federal compliance offsets market.

Policy Options for Compensating Early Actors		
	Allocation/Set-Aside	Merge into Offsets
What’s needed from the program	Does this policy option address this need?	
Maintaining integrity of the cap.	Yes Could provide compensation for ‘unsold’ mitigation whether the project would count in the mandatory system or not without harming the integrity of the cap. However it does cost money.	Depends Can protect integrity if there is a filter on early offset projects that ensures that only those projects that meet the requirements of the mandatory market are credited.

Policy Options for Compensating Early Actors		
	Allocation/Set-Aside	Merge into Offsets
What's needed from the program	Does this policy option address this need?	
<p>Providing sufficient support to cover all early actors.</p> <p><i>While desired by some, this may not and perhaps should not be required</i></p>	<p>Maybe From a stringent cap like LW (over 80 percent of all emissions capped) with an allocation of a few percent over the first five years (total ~850 million metric tons) is likely sufficient to cover all registered early actors. The current voluntary and CCX markets make up around 60 million tons of transactions in 2007^{iv} (all transactions, not just offsets). If we use this as an indicator of registered projects and assume a steady increase of 60 million tons of offsets created to date and 60 more every year until 2012, the total offsets created will be around 320 million tons, still leaving funds for other early actions to be compensated.</p>	<p>Depends Given predicted demand for offsets there would be sufficient buyers. But there are two caveats: (1) would there be regulatory restrictions to protect integrity (as described above) which would limit the early projects allowed in; and (2) would the buyers be held responsible for the risk of bad projects and thus leave riskier (e.g., less documented) projects on the table.</p>
<p>Supporting non-additional good actors</p>	<p>It can Using allocated/auctioned funds does not risk the integrity of the cap, so they could be used for non-additional activities if there are sufficient funds. (See below)</p>	<p>No Would damage integrity of cap.</p>
<p>Supplying enough offsets in the early years of the cap to meet demand and help contain costs</p>	<p>No No offsets created.</p>	<p>Maybe Can allow early actors that meet federal standards directly into the compliance offsets market to create an initial supply.</p>

How Early Project Initiation Affects Credit

Since a baseline is the point of reference for determining additionality and thus credit, how it is set is critical for the value of a mitigation project. A baseline can be based on the history of activity on the project lands or facility, or based on the industry/sector average for the activity type. If the first type of baseline is used, project developers are concerned about having to reset their baseline at the onset of the federal program in order to join the mandatory market. For example, a farmer who installed a new methane capture technology for an early project and then later wanted to join the federal program, but had to reset his baseline at his current reduced level of emissions, would be left with nothing to credit. Some legislative efforts have identified this problem and adjust for it^v, in others it is unclear how this would be handled. Current discussion and some of the newer methodologies like EPA climate leaders and the Voluntary Carbon Standard are shifting toward the use of an industry/sector/activity performance standard to set baseline and determine additionality which would likely avoid this problem.

How Non-additional Projects May be Credited

If an activity is considered non-additional it would not be eligible to merge with a federal offsets program and may not be eligible for early actor funds as these may not be counted as offsets, but could be compensated as a “good” actor in some manner through allocated funds.

There will likely be actors with non-additional activities interested in early actor programs given the level of sequestration already occurring in the agriculture and forestry sectors. If we make a rough assumption that the pre-compliance market level of continuous reduced tillage is 100 million acres^{vi} with a very high sequestration rate of around one ton CO₂/acre/year^{vii}, we are looking at 100 million tons of CO₂/yr of on-going sequestration. This does not take into account emissions from these farms. For forests, baseline sequestration is much greater, with net sequestration of 745 million tons of CO₂ in 2006 (EPA 2008). A 1 percent allocation per year out of a LW type cap would start at around 60 million allowances and decline over time. It is hard to image fully compensating (one ton for one ton) all the on-going sequestration even with the substantial funding a cap and trade may bring, but some compensation may be possible.²

One other critical issue for land based sequestration is permanence³. Only new increases in sequestration will be credited in an offsets program, and some suggest that ongoing sequestration receive some sort of credit but we also want to maintain the existing stored carbon. How can federal policy help to avoid the release of existing carbon stored on farms and in forests? It is worth considering focusing existing federal funds and programs to include this purpose.

² To illustrate a potential funding stream for ongoing sequestration in U.S. farms and forests. If there are 850 million tons CO₂ of ongoing sequestration a year and the government compensates for 10 percent of this 85 million, it will need 1.5 percent allocation from a LW type cap. For a 1,000 acre farm at a \$15/ton price in year one, at 10 percent compensation, the farm would receive \$1,500 each year. In later years, if the carbon price is around \$50/ton, the farm would receive \$5,000 each year.

³ More details in the paper on Permanence prepared for this meeting by Brian Murray

REFERENCES

ⁱ For further information see – Olander, Lydia. “Designing Offsets Policy for the U.S.” Nicholas Institute, Duke University (May 2008). Available at <http://www.nicholas.duke.edu/institute/offsetspolicy.pdf>

ⁱⁱ S. 2191. Lieberman-Warner Climate Security Act of 2007 [October 18, 2007]. 110th Congress.
S. 1766 Low Carbon Economy Act of 2007 (Bingaman-Specter) 100th Congress [11 July 2007].

ⁱⁱⁱ H.R. 6186. Investing in Climate Action and Protection Act (Markey) [4 June 2008]. 110th Congress. and
H.R. 6316. Climate MATTERS Act of 2008 (Doggett) [19 June 2008]. 110th Congress

^{iv} Capoor, Karen and Philippe Ambrosi, 2008, “State and Trends of the Carbon Market 2008.” World Bank Institute, Washington, D.C.

^v Supra ii, H.R. 6316

^{vi} Conservation Technology Information Center. “2006 Crop Residue Management Survey.2006. Available at <http://www.conservationinformation.org/pdf/2006CRMSurveySummaryLoRes.pdf>

^{vii} US EPA, 2005, “Greenhouse Gas Mitigation Potential in US Forestry and Agriculture.” Available at http://www.epa.gov/sequestration/greenhouse_gas.html