

## CARBON OFFSETS FOR AGRICULTURAL PRACTICES - FREQUENTLY ASKED QUESTIONS:

### 1) *What is an offset credit?*

An offset credit is a reduction in greenhouse gases where 1 offset credit equals 1 tonne of greenhouse gas reduced.

Greenhouse gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>), perfluorocarbons, and hydrofluorocarbons. In order to compare these emissions, they must be multiplied by a global-warming potential. The most common greenhouse gas emissions associated with agricultural activities are carbon dioxide, methane, and nitrous oxide emissions.

### 2) *What is an offset credit worth? How much will I get per acre?*

The value of an offset credit depends on the type of project, how well the project has been completed, and ultimately, what the buyer is willing to pay. Typically, these credits will trade for up to \$15 per offset credit, or the cost of compliance if companies choose to pay into the Climate Change and Emissions Management Fund.

Smaller projects, like reduced or no-till projects, are typically grouped together by an aggregator to create a sufficiently large volume of offset credits to be able to market the credits to large industrial emitters. Aggregators have different pricing models. Some aggregators offer a flat fee to purchase the right to sell the offset credit. This fee is discounted to cover the costs the aggregator will incur to verify and serialize the credits, and any other expenses such as legal fees that may result.

Other aggregators act as an agent where the cost per tonne offered to the producer may vary depending on the price the aggregator is able to get for the offset credit. Again, these credits are discounted to cover verification, serialization and other costs.

Project specific factors that affect the cost of a reduced or no-till offset credit include:

- The ecozone in which the field is located,
- The type of tillage activity being used; and
- Whether the field is being irrigated.

### 3) *I am a renter, do I need the landowner's signature? If so, why?*

Yes. The Alberta offset system awards ownership of offset credits to the land owner. That is, the land owner has the right to determine whether or not to allow his/her land to participate in the offset program.

In cases where the land owner contracts with a tenant to farm their fields, the land owner and tenant must work out a contractual agreement for offsets being generated on the land. The project developer must be able to demonstrate clear legal claim to the offsets achieved from the project to be able to sell them in the Alberta offset system. When two or more parties have potential claim in the offsets, ownership must be established through a contract between the affected parties before the offsets can be registered on the Alberta Emissions Offset Registry.

### 4) *Can the landowner sell the offsets himself even though I am the one doing the operation? Does some of the value need to go to the landowner?*

Offset credits need to be supported by records. Agricultural projects need to provide records to support the activity and ownership (legal right to the offset credits) to be eligible in the Alberta offset system. In cases where lands are rented, the landowner and tenant will likely each have some of the required records and so will need to develop a contractual agreement to sell offset credits that should include percentages of credits going to each party.

**5) I recently purchased land that I was renting. Can I claim historic credits for the period before I became the land owner?**

Ownership of offset credits is assessed per vintage year. If historic credits are being claimed, the previous land owner will need to sign an agreement to have his fields participate in the Alberta offset system.

**6) What kind of records do I need to keep?**

Different activities require different records. Each protocol speaks to the specified records needed to support the activity. Examples of records needed to support a tillage project are provided below. Other agricultural projects will have other record requirements:

- Ownership of the farm field. This is typically a land title
- Proof of equipment used. This may include purchase receipts or physical inspection.
- Proof of crop grown. This may include crop insurance records or seed purchase receipts.
- Field location. This is typically the legal land location of the field.
- Field size. This is usually assessed using aerial photographs, satellite imagery, or google map.

Project developers (aggregators) are also required to develop and retain the following records:

- The time period or reporting period of the project;
- Details on how the project was implemented relative to the offset project plan and version of the protocol being used;
- Any changes in the implementation of the project that arose during the reporting period;
- Calculation methodologies for emission reductions and removals with clearly identify inputs, emission factors, equations and methodologies used, and samples of calculations;
- Total quantified emission reductions in tonnes of CO<sub>2</sub>e removed or reduced per vintage year;
- For aggregated projects, aggregators need to include a “spatial locator template” which has information on project conditions for each individual subproject. For example in an aggregated tillage system the aggregator needs to indicate the legal land location, crop type and emission reductions for each contracted section.

**7) Do I need to use an aggregator? Where can I get information on aggregators in my area?**

No, you do not need to use an aggregator. However, aggregators can provide valuable services for compiling and marketing offset credits.

Aggregators act as project developers/compilers for small projects. They manage data collection, third party verification, serialization, and ultimately marketing and selling of offset credits. Verification and transaction costs can be cost prohibitive for smaller projects; however, a number of projects pooled together can spread these costs out to make the larger, aggregated project economic.

Regulated facilities purchasing offsets also prefer to buy offset credits in very large quantities and sign a single contract with than negotiate a number of contracts for small volumes.

**8) How much are they charging for this service?**

The service fees vary between aggregation companies.

**9) Why is there no value in perennials/forage? Don't they sequester more carbon than annual crops?**

Alberta Environment does recognize the value in perennial and forage crops; however the science required to support perennial and forage crops is not as well understood and has taken longer to review. However, it should be noted that just because an activity sequesters or reduces carbon, that does not necessarily mean that it will be eligible to generate offsets. Projects must be able to demonstrate quantifiable and verifiable reductions in greenhouse gas emissions, and must result from new activities that are beyond business as usual or sector common practice.

If it can be determined that perennial and forage crops meet these program criteria, Alberta Environment and Alberta Agriculture will work to develop and advance a perennial crops protocol for use in the Alberta offset system.

### 10) Do my credits expire? I should wait and sell them because the price might go up?

Offset credits, once created, do not expire until they are submitted to Alberta Environment for compliance under the Specified Gas Emitters Regulation.

The ability to claim historic credits will no longer be available starting January 1, 2012. Historic credits that are already serialized on the registry will be honoured, however, project developers and producers will not be able to claim new historic credits.

Go-forward crediting will require project developers to collect data, quantify emissions reductions, and then verify these reductions according to the offset project plan which is developed before the project is implemented. In some cases, project developers may need to track several years of data and associated offset credit reductions to have sufficiently large volumes to support verification and transaction costs.

### 11) What is reasonable assurance and what will this mean to my project?

Alberta Environment requires offset project to be verified by a third party verifier before they can be submitted to the Alberta Emissions Offset Registry. Assurance refers to the level of scrutiny a third party verifier applies to a project. Reasonable assurance is similar to an audit level review for financial records. It requires the auditor to provide a positive statement on the greenhouse gas assertion (offset credits) for the project.

Alberta Environment and Alberta Agriculture are reviewing all protocols to ensure record requirements are sufficiently detailed to support this higher level of review, which takes effect January 1, 2012.

## LEARN MORE

Producers who are interested in pursuing projects that meet the requirements of any of the agricultural protocols can access more information through the following website links:

**Alberta Agriculture and Rural Development – Climate Change:**

[www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/cl11618](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/cl11618)

**Alberta Environment – Climate Change:**

[www.environment.alberta.ca/0923.html](http://www.environment.alberta.ca/0923.html)

**Climate Change Central – Carbon Offset Solutions:**

[www.carbonoffsetsolutions.ca](http://www.carbonoffsetsolutions.ca)

These resources include background information, available Interpretive Guides on the protocol, as well as access to the complete Protocol Documents. Producers can also contact ARD directly Toll Free at (780) 310-FARM (3276) or 1 (866) 882-7677.

***This document last updated: January, 2011***

*Disclaimer: The information provided in this document is intended as general guidance only, as a first step for agricultural producers considering projects for the Alberta Offset System protocols. Please consult the full Government of Alberta approved protocols and available Interpretive Guides for more complete information before making a decision to pursue practice change aimed at earning carbon offsets.*