

## ROADMAP TO ALBERTA'S INNOVATIVE OFFSET SYSTEM

### What the agriculture industry needs to know about this system and how it can benefit farm management

A new era of carbon offset credits is at hand in Alberta. It's based on first-of-its-kind legislation in North America and gives producers new ways to benefit from helping to reduce greenhouse gas emissions.

The system is in the early stages of implementation. As a result, there is a wide range of understanding and expectations about what it is, where it's headed and what producers need to know in order to participate and benefit.

**"FARMERS HAVE NEW WAYS TO BENEFIT FROM HELPING TO REDUCE GREENHOUSE GAS EMISSIONS."**

**Important note: Record keeping is critical.** To qualify for offsets, documents are needed to prove that the management practices used to reduce or remove emissions actually occurred. This is critical not only to earn offsets, but to protect the producer from liability if there is any challenge to the carbon offset credits being claimed.

A few things need to be clear. It's not-a-get-rich quick scheme. It's not a government support program, it is a market instrument. The system presents new ways for producers to consistently improve their operations and earn some extra dollars along the way. Here's an overview of the fundamentals.

### THE NEW WORLD OF OFFSETS

A number of key developments are coming together to drive Alberta's offset system.

**A new era is underway.** Whatever your view on climate change, it's clear the world is looking for ways to reduce greenhouse gas emissions and that is driving new initiatives around the globe. Alberta is taking steps to do its part and in fact is helping to lead the way.

**Alberta taking charge.** One of the key components of Alberta's effort is the *Climate Change and Emissions Management Amendment Act* and its accompanying *Specified Gas Emitters Regulation*, which is the first-of-

its-kind in North America to mandate specific emissions reductions from industry.

**Regulating large emitters.** A major target of this regulation is industrial facilities that are considered large emitters – ones that produce more than 100,000 tonnes in carbon dioxide equivalent (CO<sub>2</sub>e) emissions annually. Under the regulation, these large emitters are now required to cut their 'emissions intensity' by 12% each year. They can do this in three ways – by reducing emissions, paying into a *Climate Change and Emissions Management Fund*, or purchasing carbon offsets through the Alberta Offset System.

**Targeting greenhouse gases.** The main greenhouse gases for agriculture include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Each of these are recognized to have different rates of 'global warming potential' and are measured as carbon dioxide equivalents (CO<sub>2</sub>e) over a 100 year period.

Gas	Global Warming Potential
CO <sub>2</sub>	1
CH <sub>4</sub>	21
N <sub>2</sub> O	310



**The role of offsets.** In simple terms, a carbon offset or carbon credit is a trade-off. If a facility can't meet its own targets, it can purchase an "offset" from another unregulated source to make up for that shortfall. At the end of the day, the goal of reducing emissions still gets accomplished and this gives emitters another option to help meet their obligations in a manageable way as they adjust their operations and/or adopt new technologies to meet new requirements and regulations.

**Alberta's offset system.** The Alberta Offset System is the framework of processes, rules and regulations by which the offset market operates. In Alberta, the offset system has been established since 2007 and continues to grow and evolve.

**Protocols outline options.** Approved protocols outline the specific types of practice change that are eligible to be recognized as a carbon offset. The Alberta Offset System is broader than agriculture and includes a number of protocols that apply to other industries. Short summaries of the protocols have been developed for quick reference. Full, detailed protocols are also available.

#### Examples of current agricultural protocols include:

- Tillage system management
- Beef production
  - Edible oils
  - Days on feed
  - Lifecycle
- Afforestation\*
- Pork production
- Dairy
- Biogas
- Biomass
- Nitrous oxide emission reduction
- Energy efficiency

\*Currently unavailable

### OPPORTUNITIES FOR PRODUCERS TO BENEFIT

There are two main opportunities for agricultural producers to benefit from participating in this system.

**Cashing in on credits.** One opportunity farmers have is to earn carbon offset credits and then sell these to the large emitters. At current prices, this is unlikely to be a big money-maker. However, the value of credits has significant opportunity to grow as the system evolves and the demand for credits increases.

**Capturing 'co-benefits.'** In the meantime, one of the major features of the offset system are the protocols themselves and the value they offer as options for evaluating and improving farm management. All protocols developed for the Alberta Offset System have a primary focus on reducing emissions. At the same time, a priority has been placed on developing ones that have strong additional value or co-benefits for improving efficiency, productivity, sustainability and other important aspects of a successful agricultural operation.

As a result, producers now have access to a growing list of protocols that offer additional options to consider as part of their farm management.

### COMMITMENT TO COMMUNICATIONS

A key to the success of the Alberta Offset System is getting knowledge to producers and others who can use it. Alberta Agriculture and Rural Development is delivering a communications program to support this knowledge transfer which includes updates on the system, the protocols available and other key developments.

This information is made available in a variety of ways to producers and those who deal with producers, and is anchored online at the Alberta Agriculture and Rural Development – Climate Change website.

**Qualifying for credits.** There are four key steps to qualify as a supplier of credits in the Alberta Offset System, including planning, implementation, reporting and submission requirements.

### LEARN MORE

These resources include background information, protocol summary documents, Interpretive Guides on the protocols, as well as access to the complete protocol documents.

#### Alberta Agriculture and Rural Development

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/index.html](http://www.carbonoffsetsolutions.ca/index.html)

Producers can also contact ARD directly at (780) 310-FARM (3276) or Toll Free at 1 (866) 882-7677.

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