



The Solution for Managing Climate Change

***Emerging Markets for
Agricultural Soil Sink Offset Credits***

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Agenda:



- ◆ Introduction to AgCert
- ◆ The Opportunity
- ◆ Creating Carbon Offset Credits - The Basics
- ◆ An Emerging Market
- ◆ Emerging Price
- ◆ The Challenges and Potential Solutions
- ◆ Predictions
- ◆ Recommendations

Who is AgCert and Why Are We Promoting Carbon Sequestration in Soils?



AgCert produces

- ◆ **GHG emission reductions (offset credits)**
- ◆ **from agriculture**
- ◆ **for sale to industrial emitters, governments, funds and energy traders**

Typical Digester in Mexico & Brazil



The Baseline:
Open Lagoon



Excavation



Finished
Projects



Combustion Options:

Co-generation



Flare



The Opportunity



- Shear size of the greenhouse gas (GHG) offset potential makes soil sink projects from agricultural land attractive:
 - ~134 million hectares in the Western United States
 - ~ 58 million hectares in Western Canada.
- The total potential carbon that can be sequestered in the western United States and Canada is 51 million tons of carbon per year.
- At a current Certified Emission Reduction (CER) price of €10.00 that is a market potential of over half a billion dollars!

Creating Carbon Offset Credits – The Basics

- ◆ To encourage GHG emission reductions, governments may:
 - Offer market based incentives, or
 - Apply regulatory enforcement (this will not be discussed in the presentation)

- ◆ Companies wishing to comply may either:
 - implement internal projects, or
 - purchase emission reductions from other entities/projects

- ◆ GHG reductions created from projects can be quantified and turned into saleable units called offsets or emission reduction credits

- ◆ GHG include six gases:
 - Carbon Dioxide (CO₂);
 - Methane (CH₄);
 - Nitrous Oxide (N₂O);
 - Hydroflourocarbons (HFCs);
 - Perflourocarbons (PFCs); and
 - Sulphur Hexafluoride (SF₆)

Creating Carbon Offset Credits – The Basics



◆ Types of Markets:

- Voluntary reductions and trading, or
- Regulatory managed “Cap & Trade” programs

◆ Cap & Trade Program Example:

- Program Authority restricts emissions to 100Mt per year per company
- Company A emits 120Mt per year
- Company B emits 80Mt per year
- Company B sells 20 Mt to company A to meet its target.

◆ Benefits of Cap & Trade Programs vs. Voluntary markets:

- Near term results in emission reductions
- Creates a liquid market
- Better price discovery for offsets
- Higher quality offsets.

◆ Typical Program Authority Requirements:

- Set emission limits
- Identify types of projects eligible for offsets
- Level of project validation and verification of offsets to ensure quality

Emerging Markets



- **Markets:**

- European Union Emission Trading System (EU ETS)
- Kyoto - 2008
- Regional Greenhouse Gas Initiative (RGGI) -2009
- Massachusetts Greenhouse Gas Program – 2006
- California Climate Action Registry (CCAR)
- Chicago Climate Exchange (CCX)
- Climate Trust
- Canadian Domestic Offset System – 2006

- **Main issue:**

- Eligibility of Soil Carbon Offsets as an expectable project type

Emerging Price



Offset Cost Per Tonne CO ₂ e	Source of Offset	Application of Offset	Maximum Offsets Applied to Reduction Target	Government Intervention
RGGI				
<US\$7.00	United States Only	If outside of RGGI states: 1:0.5	3.3% of target	None
>US\$7.00	North America Only	If outside of RGGI states: 1:1	5% of target	None
>US\$10.00	Global	If outside of RGGI states: 1:1	20% of target	None
MA				
<US\$6.00	RGGI States and States approved by MADEP	1:1	no maximum	None
>US\$6.50	Global	1:1	no maximum	None
>US\$10.00	Global	1:1	no maximum	Payment made into Trust, and Trust buy offsets
COS				
>CAD\$15.00	Global, but projects must meet Regulatory Approval	1:1	no maximum	Payment made into Climate Fund, and Fund buys offsets or refunds LFE purchases

Challenges and Potential Solutions



In order to preserve the integrity of an Offset system, the following issues are normally addressed by each program authority:

- Ownership
- Transaction Costs and Delivery Risk Replacement Liability
- Achieved within the Registration Period
- Project Start Date
- Coverage of the Offset System
- Unique
- Surplus
- Real
- Verifiable
- Delivery Risk and Replacement Liability

Predictions

US Market:

Future is bright, **but**:

- market will remain largely voluntary
- demand to purchase offsets may remain low
- quality of offsets from agricultural soil sink may be perceived as lower value

Canadian Market:

Future is bright, **but**:

- new federal government
- lack of market liquidity,
- closed to international markets,
- PAM of CAD\$15.00, is likely to maintain pricing levels below that seen in Europe under the EU.

Recomendations



- Technical working groups, and policy advisory boards responsible for architecting an emissions market:
 - must actively engage market stakeholders to ensure that the resulting system is both practical and economic.
- Project Proponents wanting to further reduce project transaction costs:
 - should join with other producers and utilizing the skills of a reputable project aggregator so as to take advantage of reduced transaction costs.

Investor Information on AgCert



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THANK YOU!

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