GREENHOUSE GAS EMISSION REDUCTION TRADING PILOT[1]

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INTRODUCTION

Climate change is one of the most challenging environmental, economic and social issues facing the world today. In an effort to reduce the risk of future climate change, Canada and more than 150 countries reached agreement in December of 1997, on the Kyoto Protocol, which sets binding limits on greenhouse gas (GHG) emissions from industrialized countries.

Canada's target is to achieve, by 2008-2012, a reduction in average annual GHG emissions to 6 percent below 1990 levels. Canadian governments, industry, and environmental groups are searching for flexible and innovative ways to cut greenhouse gas emissions while maintaining a healthy economy and standard of living.

Emission reduction trading is one possible approach. An emission reduction trading system provides industry, governments and other organizations with the opportunity to buy and sell emission reductions. By encouraging investment in lower-cost reductions, this approach has the potential to help Canada meet GHG reduction targets at a reduced overall cost. Whether or not this concept can help solve the climate change dilemma will depend in part on the success of an innovative Canadian experiment launched in June of this year.

The Greenhouse Gas Emission Reduction Trading Pilot (GERT) is a partnership of the federal government, several provinces, industry, environmental organizations and labour groups. It is designed to test the mechanics of a trading system where organizations can buy and sell credits for emission reductions, potentially laying the groundwork for a future full-scale trading regime.

WHAT IS GREENHOUSE GAS EMISSION REDUCTION TRADING?

Emission reduction trading (ERT) is one of two basic approaches to emission trading, the other being allowance-based.

In an allowance or permit-based system, regulatory authorities issue permits to emit pollutants. Sources needing permits can buy them from other sources who are able to reduce their emissions at a cost less than the market price for permits.

In an emission reduction trading system (sometimes called a "baseline and credit" system), tradable credits are created by:

- defining a project- or site-specific baseline
- implementing a specific emission reduction activity,
- monitoring, documenting and verifying results

These credits can then be sold, banked or used to comply with regulatory requirements.

Consider the following example involving a cement plant and a municipal government:

The cement manufacturing process generates large quantities of greenhouse gas emissions that would be very expensive to reduce. The municipality, on the other hand, has an opportunity to capture methane emissions from its landfill and use this greenhouse gas to generate electricity. However, the municipality can't provide the up-front investment that this environmentally-friendly initiative would require. So the two organizations strike a deal: the cement company agrees to finance the landfill project in return for receiving the credit for the municipality's emission reduction.

The Kyoto Protocol contains both kinds of emission trading: allowance trading between Annex 1 Parties, and emission reduction credit- or project-based trading between Annex 1 (Joint Implementation) and non-Annex 1 Parties (Clean Development Mechanism).

While there are differences between emission trading systems, they all share a common trait - they make it profitable for firms to invest in and sell low-cost emission reductions. Organizations that have lower cost options for reducing emissions gain a financial incentive to take action while companies that would otherwise pay a high price for reducing their own emissions can take the credit. Our atmosphere benefits regardless of where or how the reduction occurs. By putting a market value on emission reduction, ERT and other forms of trading offer the potential to significantly reduce the overall cost of meeting reduction targets.

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[1]Bell, W. 1999. Greenhouse gas emission reduction trading pilot. In: Landis, T.D.; Barnett, J.P., tech. coords. National proceedings: forest and conservation nursery associations—1998. Gen. Tech. Rep. SRS-25. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 96-98.
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THE GERT PILOT

This pilot has been under development for several years. A key element of BC's 1995 Greenhouse Gas Action Plan was the development, in cooperation with industry, of a GHG offset trading pilot. In 1996 the BC government, Environment Canada and the Greater Vancouver Regional District funded a design study for the pilot - released in March 1997. In November 1997, BC Environment Minister Cathy McGregor announced the pilot at a meeting on climate change with her energy and environment colleagues from across Canada.

A number of government and nongovernment partners have joined us in the development of the pilot. By the time the pilot was formally launched on June 3, the partners in this multi-stakeholder initiative included:

Government Partners

Alberta Department of Energy/Alberta Department of Environmental Protection
BC Ministry of Energy and Mines
BC Ministry of Environment, Lands and Parks
Environment Canada
Greater Vancouver Regional District
Natural Resources Canada
Nova Scotia Natural Resources
Quebec Ministry of Natural Resources
Saskatchewan Energy and Mines

Non Government Partners

BC Federation of Labour/Canadian Labour Congress
Canadian Association of Petroleum Producers
Canadian Electricity Association
Canadian Gas Association
Canadian Energy Pipeline Association
Canada's Climate Change Voluntary Challenge and Registry Inc.
Canadian Pulp and Paper Association
Canadian Wind Energy Association
Greenhouse Gas Emissions Management Consortium
Pembina Institute for Appropriate Development
West Coast Environmental Law Association

Objectives of the Pilot

The objectives of the Pilot include the following:

- Understand, evaluate and communicate the potential role of emission reduction trading.
- Develop approaches, tools, methodologies that would be required to support a functioning market for emission reduction credits.
- Provide practical experience with trading for all participants: partners, buyers, sellers.

Structure of the Pilot

There are 5 key elements of the pilot:

1. The development of rules for: determining the eligibility of trades for acceptance by the pilot, evaluation criteria standard methodologies and approaches for defining and measuring emission reductions.
2. The evaluation of trades and projects by a multi-stakeholder Technical Committee comprised of representatives of the pilot partners.
3. The registration on a public web site of trades and emission reductions reviewed by the pilot.
4. Recognition of reductions achieved through trades registered in the pilot as early progress towards the requirements of possible future trading regimes.
5. Evaluation of lessons learned from the pilot about the potential role of emission reduction trading.

Recognition is a key element of the Pilot. At the present time, there are no regulatory limits on greenhouse gas emissions nor a market in which to trade reductions or credits. At the outset of the Pilot we recognized that there would have to be some incentive for buyers and sellers to participate, beyond the opportunity to gain practical experience. Consequently, the government partners in the Pilot have signed an MOU agreeing "recognize emission reductions from trades registered under the Pilot as progress toward possible compliance obligations in the context of any future greenhouse gas trading regime." In other words, reductions made now may be counted towards future regulatory requirements, making them a potentially profitable investment and an incentive to participate in the Pilot.

Eligibility Requirements

Emission reduction projects eligible for the pilot can be located anywhere, but either the buyer or the seller must be Canadian. If the project is located outside of Canada, the buyer must report the reduction only in Canada. As well, if either the buyer or seller is outside the country, use of the emission reduction for compliance purposes will depend on future international trading agreements signed by Canada.

Projects must also have started generating emission reductions after January 1, 1997.

Emission reductions can be generated by projects that:

- reduce emissions (e.g. through fuel-switching or upgrading energy efficiency of equipment)
- avoid increases in emissions that would otherwise have occurred (e.g. by using renewable energy or less carbon-intensive technologies); or
- absorb or sequester emissions (e.g. by managed forests or underground reservoirs)

REVIEW CRITERIA

The multi-stakeholder Technical Committee reviews projects and trades to evaluate whether:

- the project results in actual emission reductions from a baseline,
- the emission reductions are measurable and verifiable, and
- the reductions are over and above what is required by law.

Trades and projects will also be assessed in terms of the extent to which they can show that reductions are in

addition to what would otherwise occur. The principle of additionality is important - we all want to ensure that we are getting emission reductions that would otherwise not have occurred, but it is also clearly very difficult to demonstrate additionality. Consequently, while the Technical Committee will be reviewing additionality, projects will not be rejected if they are unable to demonstrate additionality.

POTENTIAL BENEFITS

The GERT Pilot offers a number of potential environmental, economic and social benefits for Canada.

The GERT Pilot will provide practical experience with all aspects of GHG emission reduction trading. This will better position participants to contribute to the development of possible full scale GHG trading programs in the future.

Emission trading offers, at least in principle, the potential benefit of lowering the economic and social costs of meeting Canada's GHG targets. The reality of course will depend on many factors, including system design. The experience gained through the Pilot will help in the design of future trading programs.

For sellers of emission reductions, the Pilot provides a forum for showcasing innovative GHG reduction technologies, as well as providing investors with an additional source of funding for projects.

For the immediate future, buyers can use emission reductions to meet their own voluntary GHG reduction targets at lower cost. For example, companies and municipalities can include Pilot trades as part of their action plans registered with the national Voluntary Challenge and Registry Program (VCR Program).

In the longer term, the government partners will recognize emission reductions from trades registered under the Pilot as progress towards possible compliance obligations in the context of any future greenhouse gas trading regime.

CURRENT STATUS/PROJECTS UNDER REVIEW

As of August 31, the GERT Pilot has posted one offer to sell and one trade-matched application. The emission reductions offered for sale are from a fuel-switching project at a BC sawmill. The mill's wood drying kilns are being converted from propane to gasified wood residue. The trade-matched application involves the purchase by the federal government of electricity generated by wind power in Alberta, and the associated emission reductions. The trade-matched application is currently under review by the Pilot Technical Committee.

Other trades/projects that we expect to be submitted to the Pilot in the next few months involve:

- landfill gas utilization
- replacement of oil-fired electricity generation with small hydro, and
- super-energy efficient buildings.

We would also welcome the opportunity to review a forest carbon sequestration project.

The Pilot is currently scheduled to run for 18 months and will accept trades/projects until December 31, 1999.

ADDITIONAL INFORMATION

Additional information is available at the GERT Pilot Web site at http://www.gert.org

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