

Greenhouse Gas Emission Reduction Trading Questions & Answers

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GENERAL

What are greenhouse gases (GHGs)?

GHGs are naturally occurring gases that trap heat in the Earth's lower atmosphere, keeping the planet warm and helping to support life. Largely due to human activity, in particular the burning of fossil fuels and deforestation, atmospheric concentrations of GHGs, primarily carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), have been rising.

Why do GHG emissions need to be reduced?

In 1995, the Intergovernmental Panel on Climate Change stated that "the balance of evidence suggests there is a discernible human influence on the climate system." Possible impacts could include significant effects on regional and local climates/natural ecosystems and social and economic disruption.

How can GHG emissions be reduced?

Emissions can be reduced by cutting our consumption of fossil fuels, for example, by becoming more energy-efficient or by fuel switching. Another important approach is to maintain and enhance carbon sequestration, a process by which "carbon sinks" (e.g. soil and trees) capture and slow the release of CO₂ into the atmosphere.

What is a GHG emission reduction trade?

A typical GHG emission reduction trade occurs when a buyer with high cost options for emission reductions purchases a lower cost option from a seller and enters into a contract to transfer ownership of the emission reduction.

For example, a municipality may have a project to recover methane (a GHG) emissions from a landfill. The municipality may sell those emission reductions to an electrical utility seeking emission reductions.

Why would one organization pay another organization to reduce its emissions?

An organization may have a variety of reasons for buying emission reductions:

- to acquire emission reductions at a cost lower than reducing its own emissions;
- to obtain interim emission reductions while it prepares for reducing its own emissions; and/or
- to gain experience with trading in order to better position itself for the possible establishment of full-scale emission trading programs in the future.

Buyers will include businesses and other organizations. Examples include electric utilities, oil and gas companies, and industrial plants using fossil fuel for energy.

Who would be the sellers of emission reductions?

Sellers are likely to be businesses, governments or other organizations that have lower-cost opportunities to reduce GHG emissions, through energy efficiency, fuel switching, sequestration and other measures. Examples could include transit utilities, municipal governments, and forestry companies.

How does the public benefit from emission reduction trading?

Trading offers the potential to help Canada meet its GHG emission reduction targets at lower economic cost. Relying on traditional regulatory measures alone to achieve reductions could adversely affect the economy.

Why not just regulate all GHG emitters to reduce their emissions?

There are currently no regulations in Canada or the United States that directly limit greenhouse gas emissions. If Canada is going to meet the targets agreed to at Kyoto in 1997, consideration may have to be given to regulating greenhouse gas emissions. However, traditional regulatory measures can be onerous for firms or organizations that have few, if any, cost effective opportunities to reduce their own emissions. Emission reduction trading provides GHG emitters the flexibility to seek out lower-cost emission reductions in other operations.

Isn't emission reduction trading just a "license to pollute?"

No. Companies must comply with environmental regulations. Emission reduction trading will allow a company to offset emissions at one location with a reduction from a seller at another location. Because GHG emissions have the same impact on the global atmosphere wherever they occur, it also doesn't matter where emission reductions occur.

Have other jurisdictions tried emission reduction trading?

There has been a significant amount practical experience with the emission trading, but not focused on GHG emissions. For example, there is a Pilot Emission Reduction Trading (PERT) program under way in Ontario. It is primarily focused on the control of air pollutants that contribute to smog, but its scope has recently been expanded to include CO₂. The trading experience in the U.S. is extensive in the control of air pollutants contributing to acid rain.

How does emission reduction trading relate to the Kyoto Protocol?

At the international climate change conference in December 1997, delegates endorsed GHG emission trading between industrialized nations. Other major components of the Kyoto Protocol are joint implementation (project-based emission reduction trading among industrialized countries) and a Clean Development Mechanism to recognize emission reduction investments in developing countries.

The Greenhouse Gas Emission Reduction Trading Pilot (GERT)

What is the purpose of the Pilot?

The Pilot will provide participants with practical experience with GHG emission reduction trading and will help create the foundation for a possible full-scale emission trading system in the future.

What kind of information is the Pilot expected to provide?

The Pilot will provide information on the practical workings of an emission reduction trading system. It will evaluate the environmental and economic benefits, as well as the technical, administrative and legal aspects, of emission reduction trading.

Who is involved in the Pilot?

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

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
Manitoba Energy and Mines
Natural Resources Canada
Nova Scotia Natural Resources
Quebec Ministry of Natural Resources
Saskatchewan Energy and Mines

Who administers the Pilot?

The GERT Pilot is administered by a Pilot Manager who reports to a steering committee of senior representatives from the various agencies and stakeholder groups mentioned above. A technical committee, with parallel stakeholder representation, will prepare the administrative elements (eligibility rules, measurement protocols, etc.), review projects, record and track trades, and develop an evaluation framework for the Pilot as a whole.

What is the history of the GERT Pilot?

B.C.'s 1995 Greenhouse Action Plan identified a number of innovative options for reducing GHG emissions including the development, in cooperation with industry, of a GHG offsets (or emission reduction trading) Pilot. In 1996, B.C., along with

Environment Canada's Fraser River Action Plan and the Greater Vancouver Regional District, funded a design study for an emission reduction trading pilot.

Following the 1997 release of the study report, representatives from the B.C. Government have been working with individuals from the federal government, other provinces, the Greater Vancouver Regional District, industry and environmental groups to develop the framework for the Pilot. The GERT Pilot also draws on the experience of the Pilot Emission Reduction Trading (PERT) project - a similar initiative in Ontario that focuses primarily on reducing air pollutants that contribute to smog.

What is the role of the private sector in the Pilot?

The private sector plays two major roles.

- Through its representation on the Pilot's Steering and Technical Committees, the private sector will support and collaborate in the development of standard measurement, verification and documentation procedures; and
- The private sector will play a key role in the Pilot as buyers and sellers, bringing forward trades for consideration.

If not mandatory, why would the private sector participate?

There are a variety of reasons for the private sector to bring trades to the Pilot.

- Participants have the opportunity to gain experience with emission reduction trading and to prepare themselves for the possibility of emission trading programs in the future.
- The government partners will recognize emission reductions registered under the Pilot as progress towards possible compliance obligations in the context of any future greenhouse gas trading regime;
- Participants would be in a better position to contribute to the development of possible full scale trading programs in the future.

How will 'recognition' work?

There are currently no regulated limits on GHG emissions. However, the government partners in the Pilot have signed a Memorandum of Understanding which states that they “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.”

Furthermore, Canada’s federal, provincial and territorial ministers of energy and environment recently agreed to establish, by early 1999, a system for crediting verifiable early action to reduce greenhouse gas emissions against any future obligations. Participants in the GERT Pilot will be eligible for this recognition.

Is the GERT Pilot a “Cap and Trade” System?

No. In a “Cap and Trade” system, governments establish a limit or cap on total allowable emissions. Shares of this cap are then distributed to sources of emissions in the form of allowances. A source emitting less than its allowance may sell its surplus allowance to other sources.

The GERT Pilot parallels the structure of a “baseline and credit” system in which a site- or project-specific baselines for emissions are defined. Sources reducing their emissions below their baseline levels receive credits which can be sold.

What is an example of an emission reduction trade?

Consider a manufacturer that uses fossil fuels in its production process and consequently releases significant amounts of GHGs. The manufacturer’s options for reducing GHGs in its own operations might be costly. Among its other options are the following.

1. It could pay a municipality to capture methane produced by the municipality’s landfills, and that otherwise would be vented to the atmosphere.
2. It could purchase emission reductions from a company that has undergone an energy efficiency retrofit of its operations. The retrofit has lowered the company’s fossil fuel requirements and reduced the company’s contribution to GHGs.

The manufacturer’s decision between the options will be based on cost, quantities, risk, and other factors.

After negotiating terms and completing the trade, the manufacturer and the seller could submit the trade for consideration under the Pilot. If the trade and the associated emission reductions satisfy the requirements of the Pilot, the emission reductions would become registered and eligible for recognition against possible future compliance obligations.

How much will GHG emissions be reduced by the Pilot?

That is difficult to determine because participation is voluntary and the Pilot is only intended to test trading on a limited scale.

How will the Pilot ensure that emission reductions are valid?

As a condition of registration, buyers/sellers will have to provide plans showing how they intend to measure and document emission reductions. Each year the buyer/seller of emission reductions will have to report emission reductions in accordance with procedures accepted by the Technical Committee

Where can GERT Pilot projects be located?

Pilot projects 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.

GHG emission reductions, regardless of where they occur, are eligible for the Pilot because the atmospheric impact of reductions is the same, regardless of where they occur.

What will this Pilot cost? How will it be funded?

The Pilot is expected to cost approximately \$300,000 - \$400,000 over its two-year life. These costs will include expenditures for technical services, communications and administrative support. The Pilot will be funded from two sources. Each member of the Steering Committee has been asked to make an annual contribution towards the operation of the Pilot. The remaining revenues will come from technical review fees (ranging from \$250-\$5000, depending on the amount of emission reductions) paid by participants submitting projects to the Pilot for review.

When will the program start and end?

Projects that have been generating reductions since January 1, 1997 will be accepted from June 3, 1998, until December 31, 2001.

Who can I contact for more information?

Check out the GERT Pilot Web site at <http://gert.org>

or contact:

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