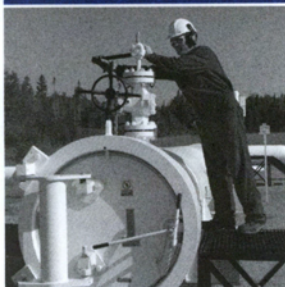


Our extensive work on climate change has provided TransCanada with the experience and expertise to manage GHG emissions.

The Kyoto Protocol is designed to reduce man-made GHG emissions linked to global climate change.



NOx Basics

Nitrogen oxides (NOx) are formed during the high-temperature combustion of fossil fuels, including natural gas, coal, oil and oil products such as gasoline. NOx is a generic term that describes a group of gases composed of nitrogen and oxygen in varying amounts, including nitrogen dioxide (NO₂), nitric oxide (NO) and nitrous oxide (N₂O). NOx and volatile organic compounds (VOCs), which are carbon-containing gases and vapours, react in sunlight and stagnant air to form ground-level ozone. This colourless but physically irritating gas combines with airborne particles to create smog. NOx and sulphur dioxide react with other substances in the air to form acids, which fall to the earth as rain, snow, fog or dust particles. Acid rain causes extensive damage to cars, buildings and vital natural resources and ecosystems that can't neutralize the acid.

Nitrous Oxide

A very small percentage of NOx is formed as N₂O, a GHG that traps heat at the earth's surface and contributes to global climate change. Nitrous oxide is, therefore, reported within the GHG sections of this report.

OUR CLIMATE CHANGE AND AIR ISSUES POLICY AND PRINCIPLES

Policy

TransCanada is committed to developing innovative and economically effective solutions to manage climate change and air quality issues. These solutions will evolve from excellence in environmental performance and technology development.

Principles

1. TransCanada supports a unified North American response to climate change and air quality issues where it is appropriate.

- Co-operation on a North American basis is clearly needed, given the geographical proximity and strong environmental and economic ties that exist between Canada and the United States.
- North American competitiveness must be maintained or enhanced while working toward solutions to manage greenhouse gas and air emissions.

STRATEGY

2. TransCanada believes emissions reduction targets and timeframes must balance environmental and socioeconomic considerations.

- TransCanada will meet or exceed legislative requirements for emissions.
- Governments and stakeholders should continue their dialogue to establish the appropriate level and timing of emissions targets.
- Targets and schedules must be based on the availability of commercially viable technology.

3. TransCanada believes prudent action is required on climate change and air quality issues.

- TransCanada will manage GHG emissions from our operations on an intensity basis. (GHG intensity is defined as tonnes of emissions per unit of production.)
- GHG and air policy considerations will be incorporated into the company's business evaluations.

4. TransCanada believes the low-emissions natural gas we transport and energy-efficient electricity we generate are part of the solution to global climate change and regional air quality issues.

- TransCanada will facilitate the use of natural gas as a fuel source because it is less carbon intensive than other fossil fuels.

5. TransCanada is committed to technological solutions to climate change and air quality issues.

- TransCanada will continue to support research and technology initiatives that mitigate the GHG and air impacts of our business.
- TransCanada will support collaborative research initiatives that promote efficient energy use and lower emissions.
- TransCanada will work to implement technologies that reduce GHG and air emissions.

6. TransCanada believes every individual, industry and government must be involved in managing/reducing emissions that contribute to climate change and air quality issues.

- TransCanada will engage our employees, customers, vendors and shareholders in climate change and air quality issues.
- TransCanada will continue to exchange information with governments, industries and consumers about our actions to manage emissions related to climate change and air quality concerns.

OUR STRATEGY

Our strategy is designed to limit the growth of the greenhouse gas emissions intensity of our North American pipeline and power facilities while meeting our business objectives. Since natural gas is less carbon intensive and produces fewer GHG emissions per unit of output than other fossil fuels, we will increase our ability to deliver this clean-burning fuel to North American markets. At the same time, we will increase our power generating capacity, using some of the most innovative and energy-efficient methods available today.

Innovation and technology development are key to further improvements in the energy efficiency of our operations.





TransCanada's strategy is designed to limit the growth of our greenhouse gas emissions intensity while expanding our pipeline and power businesses.

Our strategy includes:

1. Conserving energy through improvements to overall facility efficiency.

TransCanada continues to reduce energy use where possible by improving the energy efficiency of our pipeline and power facilities. This includes the use of low- or zero-emissions fuels such as natural gas and waste heat. We also employ highly efficient processes such as the cogeneration technology used extensively in our power business. In our cogeneration power facilities, we use one fuel source – natural gas – to generate electricity and produce steam for industrial heat and energy. These cogeneration facilities have high energy efficiencies.

2. Conducting research and development work designed to reduce GHG and air emissions.

Technological innovation is critical to managing the complex and interrelated issues surrounding GHG and air emissions. With demand for low-emissions natural gas and electricity steadily climbing, the industry needs new technologies that improve combustion and process efficiencies and limit the formation of emissions.

3. Gaining experience with flexible market mechanisms and their role in achieving cost-effective and verifiable GHG reductions.

TransCanada has developed experience with trading GHG emissions credits through our participation in various projects. The flexibility provided by these mechanisms is critical to TransCanada because our ability to reduce GHG emissions is constrained by the limitations of existing energy-efficient combustion technologies, the nature of our pipeline system, and rising demand for natural gas and electricity.

4. Participating in public policy forums related to emissions issues.

TransCanada shares information about the emissions challenges and opportunities facing the natural gas transmission and power generation sectors through our involvement in policy forums established by government, industry and other stakeholder groups. This helps participants to identify and develop pragmatic solutions that meet the needs of all stakeholders.

5. Taking part in public awareness initiatives and education programs focused on climate change and air quality issues.

We believe it is important to engage the public in these issues because they have wide-ranging implications for every individual, business sector and nation. TransCanada takes advantage of opportunities to educate our employees and the general public about emissions and how individual actions can contribute to solutions.

Energy Conservation

For more than a decade, TransCanada has managed energy efficiency on a company-wide basis in order to meet environmental and business objectives.

We've taken economic opportunities to reduce pipeline energy consumption by installing new, high-efficiency compressor engines when replacing equipment. We've also systematically eliminated pipeline leaks to conserve

STRATEGY

methane and reduced fuel consumption and associated emissions from our vehicle fleet by about 10 per cent since 1990.

All our wholly owned power plants are built to conserve energy, using cogeneration, combined cycle cogeneration or waste heat recovery to maximize electrical output and minimize fuel consumption. Cogeneration power plants increase efficiency by providing waste heat to nearby industries, while combined cycle cogeneration plants use some of the waste heat to increase electric power output. Our Cancarb electric power facility in southern Alberta is fuelled almost exclusively by zero-emissions waste heat received from an adjacent industrial process that drives steam-powered generators.

In late 2004, TransCanada's pursuit of energy-efficient power production continued with the startup of the 90-megawatt (MW) Grandview cogeneration plant in Saint John, New Brunswick. This pattern was repeated throughout 2005, with the construction of the 550-MW Bécancour cogeneration plant near Trois-Rivières, Québec, and the acquisition of 567 MW of hydroelectric power production in the U.S. Northeast with the purchase of USGen New England assets. This purchase is now known as TransCanada's U.S. Northeast Hydro Systems.

In addition, TransCanada is the lead investor in the Cartier Wind power project, which will provide some 740 MW of wind-powered electric generating capacity to the Québec power grid over the next six years.

In the future, TransCanada will continue to expand its power business wherever opportunities arise. This will include the construction of new, energy-efficient facilities and the acquisition of existing conventional power generating facilities.

Public Engagement

TransCanada supports programs that engage the public in reducing energy consumption and related emissions. Industries, governments and the public must work co-operatively to improve their energy efficiency and develop solutions that balance Canada's economic and environmental objectives.

Promoting Sustainability

In Québec, TransCanada is supporting the Montréal Nature Museums Foundation in a contest that promotes environmental protection and conservation among primary grade students. Teachers in Montréal are invited to submit a report about a class project that created a positive change in their environment and raised their school community's awareness of sustainable environmental protection and conservation. The winning class is invited to a VIP visit of the four museums, with a sleepover in one of the Biodome's ecosystems.

Environmental Restoration

Years of uncontrolled access have had a significant environmental impact on Calgary's Inglewood Bird Sanctuary. To help restore the area, in May 2004 TransCanada volunteers, City of Calgary staff and more than 100 grade nine students from Thomas B Riley Junior High School planted about 200 shrubs and 1,000 plugs of wildflowers. This is the second time TransCanada has been involved with the city's restoration activities in

TransCanada has reduced the amount of energy required to deliver a unit of natural gas and established a power business that uses low-emissions fuels and processes.





TransCanada supports educational programs and activities that help students and employees understand how lifestyle choices affect their energy use.

the Inglewood area. In 2003, TransCanada employees participated in a similar project, planting about 1,800 trees along the sanctuary's riverbank.

In 2004, TransCanada helped purchase plant materials and provided 13 employee volunteers to help students with planting activities.

Destination Conservation

TransCanada continues to support a Destination Conservation (www.dcplanet.org) program that has helped more than 37 schools in the Calgary area cut \$143,700 in electricity costs over the past five years. This student-driven program has involved teachers, principals and custodians in activities that reduce daily energy use and waste at their schools, while saving money as well as reducing GHGs and air emissions. The Calgary Board of Education returned 20 per cent of the financial savings to the participating schools in the form of rebates. Destination Conservation is a partnership of government, industry and special interest groups that raises environmental awareness among students.

TransCanada also sponsors Destination Conservation's Climate Change Challenge for students in grades four to 12. About 390 introductory-level climate change questions are featured on this web-based, animated program (www.co2challenge.com), along with games, environmental news and teacher lesson plans. The program includes a national student competition to test climate change knowledge, and delivery of presentations at dozens of teaching-related events across Canada. TransCanada's sponsorship of this program continued into the 2004/2005 school year.

Green Learning

TransCanada supports Greenlearning.ca, an innovative, web-based project that provides Alberta schools with timely and accurate environmental information and support on topics such as climate protection and energy efficiency. Green Learning Online, a project of the Pembina Institute, offers a ready-made, approved curriculum guide for teachers, as well as web-based activities for most lesson plans. The information is also available to all Albertans through the website's public areas. TransCanada, along with governments and other industry partners, has provided financial support and expertise to help develop this resource for students and teachers. The Pembina Institute is an independent, not-for-profit environmental policy, research and education organization.

Climate Conscious

TransCanada has included Environment Canada's Idle-Free campaign in our Climate Conscious program, which increases employee awareness of how individual lifestyle choices can reduce GHG emissions. The Idle-Free campaign encourages individuals to reduce auto emissions by avoiding needless idling of vehicle engines at home and at work, particularly during the winter. TransCanada's Climate Conscious program helps employees track their daily production of GHG emissions and suggests how they can reduce emissions by changing their energy habits.

STRATEGY

Commuter Challenge

Environment Week 2004 marked TransCanada's renewed commitment to the Calgary Commuter Challenge (www.calgarycommute.ca). More than 400 TransCanada employees – twice as many as the previous year – took part in this nationwide challenge, which encourages people to find energy-efficient methods of travelling to and from work.

By walking, in-line skating, cycling, car pooling and taking public transit to work, or by working from home, these employees eliminated the equivalent of 10,588 kilograms of carbon dioxide. They logged about 46,000 kilometres – twice as much as the previous year – which earned them first place in the “over 1,000 employees” category in Calgary for employee participation and distance travelled. Employees also attended workshops and displays about global climate change to learn more about how they can help reduce individual GHG emissions. In addition to being an active participant in the challenge, TransCanada also helps sponsor the event.

New Technology

Innovation and technology development are key to further emissions reductions from TransCanada's facilities. As a leading pipeline innovator, our work is focused on using this expertise to develop new methods of reducing emissions from our pipeline operations.

Fuel Cell Research

We are piloting a proton exchange membrane (PEM) project in Alberta that will evaluate this fuel cell's technical, economic and environmental performance. If successful, the PEM fuel cell could provide a more efficient and low-emissions alternative to thermal electric generators (TEGs) that now provide electrical power to TransCanada's remote pipeline facilities. TEGs operate at about two to three per cent thermal efficiency, while fuel cells offer efficiencies in the 30 to 40 per cent range and are expected to climb. Fuel cells are devices that convert the energy of a fuel (hydrogen, natural gas, methanol or gasoline) and air or oxygen into electricity. Although there are several types of fuel cells, PEM is emerging as an option in small-scale applications.

Dry Gas Seal Mitigation

TransCanada is refining a process that captures fugitive methane emissions from dry gas seals on pipeline compressors. The captured methane is added to the fuel gas required to drive compressor engines. This process builds on early dry gas seal technology pioneered by TransCanada that improved the efficiency of the seal, reducing fugitive methane emissions as well as eliminating oil and grease spills. The new system is currently being tested to ensure safe, trouble-free operation.

Carbon Dioxide Capture

TransCanada is investigating methods of capturing carbon dioxide (CO₂) from our pipeline compressor engines – the major source of our GHG emissions – for use in selected industrial applications. Compressor



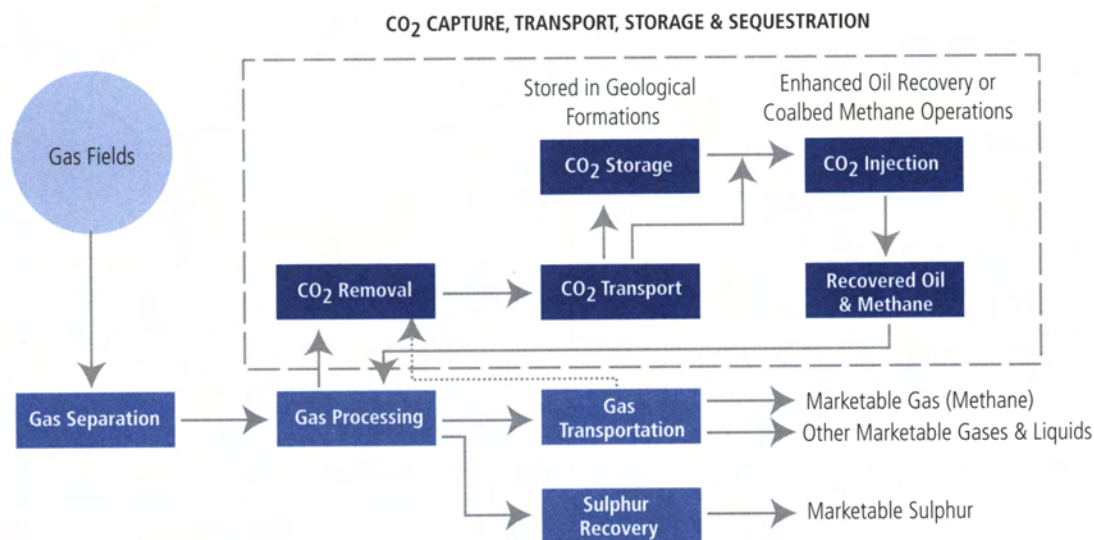
TransCanada employees joined with Thomas B Riley Junior High School students and City of Calgary staff to plant shrubs and wildflowers at Calgary's Inglewood Bird Sanctuary.

engine emissions typically contain only about two to five per cent carbon dioxide, which is not sufficiently pure for industrial applications. It must be processed into a higher concentration to meet specifications for industrial use.

Closed-Cycle Carbon Dioxide Capture Pilot

TransCanada is one of several consortium members involved in a project that is evaluating the benefits of capturing carbon dioxide and injecting it into subsurface coalbed methane reservoirs to increase methane recovery. In this closed-cycle pilot project, CO₂ emissions will be captured, injected and then stored or sequestered in the subsurface reservoir. This work is being undertaken in conjunction with Sustainable Development Technology Canada™, a not-for-profit foundation that supports the development of technologies that address environmental issues.

DIAGRAM 1 – CARBON DIOXIDE CAPTURE



Methane Biofiltration

Converting methane to carbon dioxide substantially reduces its GHG impact on the environment. TransCanada is testing biofilters that do just that. Reducing methane is important because it's 21 times more potent than carbon dioxide in trapping heat to the earth's surface. Through TransCanada's work with the University of Calgary, a biofilter has been developed that oxidizes more than 90 per cent of a methane emissions stream into carbon dioxide. The biofilter is specifically designed for use on pipeline components that are engineered to release methane as part of their normal operations. Since biofilters could be used at more than 300 TransCanada meter stations that produce engineered emissions, this technology has important potential to mitigate methane emissions. TransCanada currently has three pilot biofilters in operation and is continuing to work with the University of Calgary to enhance their design, operation and maintenance.



TransCanada is developing a process to capture methane emissions from dry gas seals for reinjection into fuel gas lines feeding compressor engines.

TransCanada is assessing GHG emissions trading, a market-based reduction method established under the Kyoto Protocol.

STRATEGY

Incineration

TransCanada is conducting a pilot project to test the efficiency of portable methane incinerators in reducing the GHG impact of blowdowns. A blowdown occurs when methane is vented to the atmosphere from a section of pipeline to allow for construction or maintenance work. TransCanada avoids blowdowns where possible but where there is no other option, the incinerator burns the residual methane left in the pipeline following the blowdown. Incineration converts the methane to carbon dioxide, reducing its GHG impact by 80 per cent. Preliminary testing has shown potential benefits of incineration, but more work was done in 2005 to reduce incineration times and increase efficiencies.

Flexible Mechanisms

The international community has established flexible mechanisms under the Kyoto Protocol to help countries and companies develop cost-effective and verifiable GHG emissions reductions. As a major North American pipeline and power company, TransCanada is gaining experience with flexible mechanisms and the role they will play in continental emissions policy.

GEMCo

TransCanada is a founding member of the Greenhouse Emissions Management Consortium (GEMCo), a partnership of Canadian energy companies focused on market-based GHG reductions such as GHG emissions trading. GHG emissions trading allows companies facing prohibitively high emissions reduction costs to purchase credits or allowances from companies that can achieve lower-cost reductions. Achieving the most cost-effective GHG emissions reductions may limit negative impacts on consumers and the economy.

Carbon Dioxide Reinjection

In one GEMCo initiative, carbon dioxide emissions are captured from a natural gas processing plant in Texas. The carbon dioxide is then injected into nearby oil reservoirs to enhance the recovery of crude oil.

Capturing carbon dioxide and then storing or sequestering it in an underground oil reservoir prevents the release of this GHG into the atmosphere. The resulting GHG emissions savings are translated into emissions credits, which are purchased by GEMCo. TransCanada has a share in the emissions credits provided by this project.

Capturing Landfill Gas

In British Columbia, a GEMCo initiative recovers methane produced from decomposing material in a landfill and uses it as fuel gas. The methane is transported by pipeline to a paper recycling plant where it supplements the mill's existing natural gas supply. The project is expected to reduce GHG emissions by 15,000 tonnes per year of carbon dioxide equivalent over 10 years.

TransCanada participates in a number of research projects designed to reduce emissions from our pipeline operations.



A pilot project is testing the efficiency of portable methane incinerators in reducing the GHG impact of blowdowns.

The scientific community has linked global climate change to increased atmospheric concentrations of greenhouse gas (GHG) emissions caused by human activities. The operation of our pipeline network produces three types of GHG emissions, which we report annually to the Canadian government.



MANAGING GHG EMISSIONS

PIPELINES

TransCanada's Role in North American Pipelines

The United States and Canada rely on natural gas for 25 per cent of their combined energy consumption. Western Canadian natural gas meets nearly all of Canada's natural gas demand and provides the majority of natural gas imported by the United States.

In 2004, TransCanada's wholly owned Alberta System gathered roughly two-thirds of the natural gas produced in Western Canada or about 15 per cent of total Canada/U.S. natural gas production. The Alberta System transported this gas to our other wholly owned Canadian pipelines – the Canadian Mainline, the Foothills System and the BC System. These lines move western Canadian natural gas to transmission and distribution systems throughout Canada and the United States. Our BC System connects with our wholly owned Gas Transmission Northwest (GTN) System, which carries gas to California. GTN was acquired in the fall of 2004, along with the North Baja System, which carries gas from Arizona to California. These two recent acquisitions have not yet been integrated into our management systems and are therefore not included in this report. In total, TransCanada operates 41,000 kilometres of pipeline. There may be five to seven separate pipelines contained in a single right of way.

Our Canadian network gathers natural gas from about 1,200 receipt points in remote natural gas producing areas throughout Western Canada. It also has roughly 300 meter stations at major points across Western and Central Canada for delivering natural gas to our customers, who include other major pipeline transportation and distribution carriers that deliver gas to locations throughout Canada and the United States. In 2004, TransCanada's wholly owned pipeline network delivered 30 to 40 per cent of its total volumes to Canadian destinations and 60 to 70 per cent to U.S. markets.

MANAGING GHG EMISSIONS

TransCanada's complex receipt and delivery role is dramatically different from most other pipelines, whose receipt and delivery points typically number in the dozens.

For example, TransCanada's Canadian Mainline System route covers 4,000 linear kilometres. It passes through four Canadian provinces, making deliveries to gas pipelines located in the provinces of Saskatchewan, Manitoba, Ontario and Québec and in the states of Vermont, Minnesota and New York. The Canadian Mainline was constructed in the late 1950s over the longer, all-Canadian route – rather than a shorter route south of the Great Lakes – at the request of the Canadian government.

All these elements – distance, volumes, receipt and delivery points – require much greater compression power than other pipelines. More than 300 compressor units are needed to gather and move gas along TransCanada's wholly owned system, while other lines require only a handful of compressors.

For these reasons, TransCanada is a major fuel consumer. Since 1990, our system has grown dramatically to keep pace with North American natural gas demand. Installed compression has increased by 72 per cent while the length of pipeline in service has increased by 36 per cent. During this period, volumes have increased by 98 per cent on the Canadian Mainline System, 38 per cent on the Alberta System, 40 per cent on the BC System and 168 per cent on the Foothills System. As part of our climate change commitment, we've dramatically reduced the amount of fuel – and associated emissions – it takes to move a unit of natural gas to market through our system. But the essential role played by TransCanada means that our fuel consumption and emissions profiles will be governed by factors different from those of other pipeline systems performing other types of service.

Pipeline Quickfacts

Length – kilometres (km) **Volumes** – billions of cubic metres per year (bm³/yr)

Facility	Length	Volumes
Alberta	23,186	111.7
British Columbia	201	10.3
Foothills	1,040	32.5
Canadian Mainline	14,898	74.9
Gas Transmission Northwest*	2,174	5.2
North Baja*	128	0.37
Total Length	41,627	N/A

Pipeline routes are detailed in the foldout map within the Facilities section at the end of this report.

* Gas Transmission Northwest and the North Baja System were purchased in November 2004. Volumes listed here are prorated for the two months of TransCanada ownership in 2004.

Installations	Count
Compressor Units	309
Compressor Rating (megawatts)	4,077



In 2004, TransCanada transported about two-thirds of the natural gas produced in Western Canada – enough natural gas to heat about 28 million homes.