

Provincial Government Performance on Climate Change: 2000

September 2000

About the Pembina Institute

The Pembina Institute is an independent, citizen-based think tank and activist organization. We seek to ensure environmental protection through research and education; practical technological solutions and advice to businesses, individuals and communities; and effective development and advocacy of environmentally-sound public policy.

The Institute's Climate Change Program works to design, develop, promote and implement actions that protect the climate through improvements in the efficiency of fossil fuel energy production and use, and through a transition to the renewable energy that will power the world's economy in the 21st century.

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SUMMARY RESULTS AND CONCLUSIONS

Background

Canada will not meet its international climate change commitments without significant action by both the federal and provincial governments. In reality, federal and provincial governments have been “cooperating” for a decade to deal with climate change. Some of the key milestones include:

- National Action Strategy on Global Warming (1990)
- 18-month National Consultation Process that identified 88 potential measures to address climate change (1994-95)
- National Action Program on Climate Change (1995)
- 18-month National Consultation Process that identified more than 300 potential measures to address climate change (1998-2000)

Unfortunately, all the talk of “strategies” and “action programs” produced almost no new policy initiatives to protect the climate in the period from 1990 to 1995. In 1995, some “voluntary” initiatives were implemented and in the last few years the federal government has finally begun to commit initial resources to greenhouse gas emissions reduction. While the federal government could clearly be doing much more to address climate change, its actions to date dwarf any initiatives taken by provinces in this area.

It is a lack of political will—not a lack of policy options—that has prevented provincial governments from more aggressively tackling climate change. On October 16 and 17, 2000, federal and provincial Ministers of Energy and Environment will meet in Québec City to agree on Canada’s new “National Implementation Strategy on Climate Change” (NIS). Participants are also supposed to agree on a “First Business Plan” for the NIS, and provincial governments have been asked to identify what measures they plan to take to address climate change over the next two to three years.

This assessment of provincial government performance on climate change was prepared by the Pembina Institute to serve as a “baseline” prior to implementation of the NIS. The lack of any meaningful provincial government activity on climate change over the last decade is reflected in the scores awarded in this initial review. However, we expect scores to improve if provincial governments implement some of the key greenhouse gas emission reduction measures identified on numerous occasions over the last 10 years. Indeed, we hope that announcements in Québec City will require us to re-evaluate and increase provincial government scores.

This review focused on the five provinces (Alberta, British Columbia, Saskatchewan, Ontario and Québec) that accounted for about 89% of Canada’s total greenhouse gas emissions (in 1997). Each provincial government’s performance was assessed in nine areas of potential activity to address climate change, using 38 criteria. Each criterion was used to determine whether or not a provincial government has implemented a specific measure that will likely be an integral component of any successful national effort to address climate change. Subsequent reviews (these will be produced annually) may include additional provinces and territories.

Results

This assessment of provincial government performance on climate change awarded each province a score out of 100. The total scores awarded are as follows:

British Columbia	30.5%
Ontario	27.5%
Alberta	26.5%
Québec	22.0%
Saskatchewan	20.5%

All provincial governments reviewed received a very poor, failing grade. The quality of these scores reflects the minimal efforts made by provincial governments to deal with climate change over the last 10 years. In addition, the narrowness of the gap between British Columbia and Saskatchewan indicates that while some provinces are doing more than others, no single province has clearly become a climate protection leader within Canada.

Examining the scoring within each of the nine areas of potential activity to reduce greenhouse gas emissions provides additional insights into the relative performance of provinces and helps to explain why Canada's total greenhouse gas emissions grew by 13% between 1990 and 1997.

Transportation

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 15	4.0	7.0	5.0	4.5	3.5

Canada's greenhouse gas emissions from transportation grew 17% between 1990 and 1997. No province received a passing mark for its activities in this area. British Columbia and Ontario received the highest marks, reflecting the fact that these jurisdictions have taken some initial but largely inadequate actions to address poor urban air quality, which have also had some greenhouse gas emission reduction benefits. There has been little use of meaningful fiscal incentives to encourage less carbon intensive and more energy efficient transportation choices, and some provinces (e.g., Ontario and Saskatchewan) have even stopped funding essential alternatives to the automobile, like urban public transit.

Electricity

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 15	0.5	2.5	3.0	3.0	0.0

Canada's greenhouse gas emissions from electricity generation grew 17% between 1990 and 1997. All provinces scored exceptionally poorly in this area. Québec and Ontario received the highest scores, reflecting the Québec government's investment in Canada's largest wind energy project (Le Nordais) and Ontario's minimal efforts to promote less carbon intensive electricity as it opens its electricity market to competition. Strikingly, the two provinces that score most poorly (Alberta and Saskatchewan) are the two provinces most reliant on coal-fired electricity generation. The score is particularly disappointing in Alberta's case, as Alberta has failed to use the opportunity presented by deregulating its electricity market to facilitate increased investments in either energy efficiency or renewable energy.

Buildings

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 15	2.5	5.5	4.0	3.0	3.5

Canada's greenhouse gas emissions from buildings in the residential and commercial sectors increased by 11% between 1990 and 1997. Once again, no provincial government received a passing grade in this sector. While few provinces have adopted the National Energy Codes for Buildings and Houses, actual construction practices are slowly creeping up to these standards. Of course, they still fall far short of more aggressive energy efficient building practices as epitomized by the 20-year old R-2000 standard. More importantly though, there is very little activity (regulatory or fiscal) at the provincial level to support energy efficiency retrofits of the much more extensive existing building stock—despite numerous studies indicating that such initiatives are cost effective.

Industry

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 15	4.5	2.5	3.5	4.0	2.5

Canada's greenhouse gas emissions from industry (excluding electricity generation) increased by 15% between 1990 and 1997. This reflects, in particular, the fact that greenhouse gas emissions from the oil and gas industry increased by 18% in this period. While no province received a passing grade in this area, Alberta received the highest marks for its voluntary agreement with industry to reduce flaring and for the growth in the construction of industrial co-generation facilities that produce both electricity and heat. Unfortunately, provincial governments provide few incentives for industrial investments in energy efficiency or alternative energy sources while at the same time the major fossil fuel-producing provinces (Alberta, British Columbia and Saskatchewan) continue to change tax and royalty provisions to encourage even greater investments in oil and gas development.

Facilitating Emissions Trading

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 10	1.0	1.5	2.5	1.5	1.5

It is increasingly evident that if Canada is going to meet its international climate change commitments, a domestic emissions trading system will need to be part of Canada's greenhouse gas mitigation strategy. Nonetheless, no province has taken a position on domestic emissions trading and all provinces scored poorly in this area. While every province assessed is supportive of pilot greenhouse gas emission reduction credit trading initiatives, none has agreed to recognize those credits against any future regulatory obligations. In addition, no provinces have mandated reporting of greenhouse gas emissions except for Ontario, which has only mandated reporting of carbon dioxide emissions.

Government House in Order

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 10	7.5	3.0	3.5	1.0	3.5

One of the cornerstones of Canada's response to climate change has been the Climate Change Voluntary Challenge and Registry program (VCR). Launched with much fanfare by federal and provincial governments in 1995, the VCR encourages industry, businesses and governments to voluntarily take action to reduce greenhouse gas emissions. Alberta received a good mark here because of its solid participation in the program and demonstrable results in building retrofits and fleet management. While all other provinces (except Québec) participate in the VCR, none has made a submission to the program in at least three years. In fact, provinces like British Columbia and Saskatchewan have still not submitted an inventory of greenhouse gas emissions from government operations. The Québec government participates in the voluntary EcoGeste program, but none of the submissions made to this program are publicly available.

Other Sources of Greenhouse Gas Emissions

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 10	2.5	2.5	5.0	2.0	3.0

While the combustion of fossil fuels accounts for the vast majority of Canada's greenhouse gas emissions, actions to reduce greenhouse gas emissions from landfills, agriculture and forests can also contribute to meeting Canada's international climate change obligations. Ontario received the highest mark here largely because of its regulations requiring the capture and combustion of landfill methane. No provinces have any significant afforestation programs in place and virtually all measures targeted at reducing emissions from livestock feeding and manure are voluntary or educational in nature with no supporting incentives or regulations to ensure such actions are actually taken.

Promoting Technology Development

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 5	1.5	3.0	0.5	2.5	2.5

The key ingredients to any substantive response to climate change—improved energy efficiency and increased use of low impact renewable energy sources—have long been clear. Many governments around the world have dramatically increased their support for new technology development and commercialization in these areas to help prepare their economy for a low-carbon energy future. Canada has fallen significantly behind these countries and this assessment illustrates why. British Columbia and Québec score relatively well in this area because they actually have some initiatives targeted at energy efficiency and renewable energy. In Alberta and Saskatchewan, on the other hand, most technology support is directed at ways to try and make fossil fuels more palatable in a low-carbon economy (e.g., geological carbon sequestration, energy efficiency in fossil fuel production, commercial uses for carbon dioxide). Finally, Ontario abandoned many of its programs in these areas four to five years ago.

Enhancing Awareness and Understanding

Province	Alberta	British Columbia	Ontario	Québec	Saskatchewan
Score out of 5	2.5	3.0	0.5	2.5	0.5

It has long been recognized that public engagement is critical to dealing successfully with climate change. But even in this area, provincial governments score relatively poorly. While some (e.g., Alberta, British Columbia, Québec) have targeted various resources at public education related to climate change, the funding support remains relatively small—dwarfed by the efforts of the federal government in this area in recent years. Nonetheless, their efforts still are significantly greater than those of Saskatchewan and Ontario. Neither of these provinces has made much effort to educate their citizens about climate change and its potential impacts and solutions.

Conclusions

Provincial governments must be an integral and important component of any Canadian strategy to address climate change. This assessment makes it clear that the 1990s represent a “lost decade” with respect to provincial government action on this issue. Instead of taking action to reduce greenhouse gas emissions, provincial governments have spent the last ten years squabbling with the federal government about climate change reduction targets, jurisdictional issues and funding. Most provincial governments have not even taken action to reduce greenhouse gas emissions in their own operations, much less the province as a whole. While the federal government has done far less than it should to address climate change, its efforts put provincial governments to shame.

At the Federal-Provincial Energy and Environment Joint Ministers Meeting (JMM) in Québec City on October 16 and 17, 2000, provincial governments have an opportunity to end a decade of inaction on climate change. All provincial governments have been asked to come to the meeting with a set of measures that they are willing to take to reduce greenhouse gas emissions in the next two to three years. This assessment describes the kinds of measures provincial governments should be bringing to the table. While there are currently no clear provincial “leaders” on the climate change issue, the meeting in Québec City provides an opportunity for a leader to emerge.

Will this happen? It seems unlikely. Ontario, which has been the major obstacle to progress on this issue for the last two years, seems likely to continue its argument that significant action on climate change must be delayed until further analysis is undertaken. The Government of Saskatchewan has already indicated that it will not be bringing any new measures to the JMM. Alberta has been the strongest provincial supporter of the two-year process leading up to the JMM, but it is not clear if its concern about climate change will finally move from process to substance. British Columbia has always been expected to be a provincial leader, but has consistently failed to deliver. Finally, the host of the meeting, the Government of Québec, pulled out of the last JMM to protest the lack of progress, but has done little to indicate that it is more interested in taking action than anyone else.

If the Joint Ministers Meeting fails to generate significant new actions from the provinces, Canada’s international commitments on climate change will be in danger. It will also deny Canadians the multiple economic and environmental benefits of taking actions to reduce greenhouse gas emissions, while increasing the likelihood that the federal government will be forced to impose draconian and painful actions to meet our international commitments.

Provincial governments have a choice to make at the JMM. They must decide if they want to be part of an effort to shape the solution to climate change, or if they simply want to react to solutions imposed on them by other levels of government and the marketplace. Provincial governments have put off this decision for 10 years—but time is running out.

BACKGROUND

Canada first committed to address climate change in May 1990 when the federal government announced that Canada would stabilize its net greenhouse gas emissions at 1990 levels by the year 2000. The federal government reaffirmed this commitment when Canada ratified the United Nations Framework Convention on Climate Change in 1992. Finally, in 1997, Canada negotiated the Kyoto Protocol. If the Protocol enters into force, Canada will be committed to reducing its greenhouse gas emissions to 6% below 1990 levels in the period 2008-2012.

Unfortunately, greenhouse gas emission trends in Canada completely contradict our commitments to protect the climate. Greenhouse gas emissions in Canada increased by 13% between 1990 and 1998. In the year 2000, emissions are projected to be 15% above 1990 levels. By 2010, emissions are projected to be 27% higher than in 1990.

Responsibility for Canada's failure to meet its commitments on climate change is usually placed at the feet of the federal government. While the lack of strong federal government leadership on climate change has certainly contributed to Canada's dismal record, it is also true that the federal government cannot do the job on its own. If Canada is to successfully address climate change, provincial governments must play a significant role.

Provincial Governments and Climate Change

Why are provincial governments central to any Canadian climate change mitigation strategy? Simply put, many of the key sources of greenhouse gas emissions fall under the responsibility of provincial governments. For example:

- 16% of Canada's greenhouse gas emissions come from the production of electricity, and provincial governments are responsible for regulating this industry. In fact, most major electric utilities in Canada are provincial Crown corporations.
- 27% of Canada's greenhouse gas emissions come from transportation, and provincial governments are responsible (with municipalities) for transportation and land use planning; they are also the primary source of funds for alternatives to the automobile like public transit.
- 12% of Canada's greenhouse gas emissions come from buildings, and provincial governments are responsible for regulating the building industry through instruments like building codes.
- 3% of Canada's greenhouse gas emissions come from landfills, and provincial governments (with municipalities) are responsible for waste management.
- 15% of Canada's greenhouse gas emissions come from fossil fuel exploration, production and transmission—activities regulated primarily by provincial governments.

Canada will not meet its international climate change commitments without significant action by both the federal and provincial governments. In reality, federal and provincial governments have been "cooperating" for a decade to deal with climate change. Some of the key milestones include:

- National Action Strategy on Global Warming (1990)
 - 18-month National Consultation Process that identified 88 potential measures to address climate change (1994-95)
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Unfortunately, all the talk of “strategies” and “action programs” produced almost no new policy initiatives to protect the climate in the period from 1990 to 1995. In 1995, some “voluntary” initiatives were implemented and in the last few years the federal government has finally begun to commit initial resources to greenhouse gas emissions reduction. While the federal government could clearly be doing much more to address climate change, its actions to date dwarf any initiatives taken by provinces in this area.

In fact, ever since Canada made its first climate change commitment in 1990, provincial governments have not been focused on actions they can take to reduce greenhouse gas emissions. Rather, their climate change efforts have focused largely on:

- demanding a larger role in determining what international commitments Canada adopts on climate change, as well as seeking greater influence in determining what mix of policy tools will be used to meet such commitments; and
- seeking funding from the federal government to support potential provincial government activities to address climate change.

It is a lack of political will—not a lack of policy options—that has prevented provincial governments from more aggressively tackling climate change. On October 16 and 17, 2000, federal and provincial Ministers of Energy and Environment will meet in Québec City to agree on Canada’s new “National Implementation Strategy on Climate Change” (NIS). Participants are also supposed to agree on a “First Business Plan” for the NIS, and provincial governments have been asked to identify what measures they plan to take to address climate change over the next two to three years.

Purpose and Structure of this Review

This report is the first in a series of annual reviews that will be conducted to assess the performance of Canada’s provincial governments in addressing climate change. It focuses on only five provinces (Alberta, British Columbia, Ontario, Québec and Saskatchewan) because these provinces accounted for about 89% of Canada’s total greenhouse gas emissions (in 1997). More provinces may be added in future reviews.

The purpose of the review is to:

- provide a standard and comprehensive methodology for assessing a provincial government’s progress on climate change that reflects all the key areas identified by federal and provincial governments as necessary components of Canada’s “First Business Plan” within its climate change strategy;
 - focus on provincial government performance with respect to the most significant measures that could be taken in each of the key areas identified by federal and provincial governments for action (the vast majority of these measures were recommended for implementation by the national consultation process);
 - provide a baseline against which future provincial government activity can be assessed, thus making it possible to monitor provincial government performance and progress (including announcements at the October 16th and 17th Joint Ministers Meeting) over time; and
 - serve as a tool for assessing the relative performance of provincial governments on the climate change issue.
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The review is divided into nine sections, each corresponding to a specific component of Canada's "First Business Plan" within its climate change strategy. A set of 38 questions was designed to assess provincial government performance in these nine areas, focusing particularly on the key measures that need to be implemented in each area if Canada is to meet its international climate change commitments. Each question was assigned a mark such that the total score of the review equals 100.

The full assessment framework can be found in Appendix A, but the table below illustrates the relative weight provided to different elements of a provincial climate change strategy within the assessment framework.

Element of a Provincial Climate Change Strategy	Relative Weight
Reducing Greenhouse Gas Emissions from Transportation	15%
Reducing Greenhouse Gas Emissions from Electricity	15%
Reducing Greenhouse Gas Emissions from Buildings	15%
Reducing Greenhouse Gas Emissions from Industry	15%
Actions to Facilitate Greenhouse Gas Emissions Trading	10%
Reducing Greenhouse Gas Emissions from Government Operations	10%
Reducing Greenhouse Gas Emissions from Other Sources	10%
Actions to Promote Technology Development	5%
Actions to Enhance Awareness and Understanding	5%
Total	100%

The assessment has been undertaken through a review of published materials on provincial climate change initiatives and many interviews with key provincial government representatives. Draft materials were reviewed by environmental groups based in the provinces being assessed, as well as by provincial government officials in each province.

Each detailed assessment of provincial government performance on climate change in this review is preceded by a brief introductory section that includes:

- an overview of the province's current greenhouse gas emissions profile;
- a presentation of recent greenhouse gas emission trends in the province; and
- a description of any processes being used to develop, implement or review a provincial climate change strategy.

ALBERTA

Current Greenhouse Gas Emissions Profile (1997)¹

Total emissions (Mt CO ₂ E)	201
Per capita emissions (t CO ₂ E / person)	70.8
Per unit GDP emissions (kg CO ₂ E /\$ GDP)	1.89

Sources of Emissions (1997)

Electricity and steam generation (%)	25
Buildings (%)	7
Transportation (%)	14
Industry (%)	44
Other human activities (%)	11

Climate Change Stakeholder Policy Development Process

On April 30 and May 1, 1999, the Alberta Economic Development Authority and the Government of Alberta sponsored a provincial Climate Change Round Table of over 100 leaders from industry, academia, municipal governments, and environmental groups, as well as the public. The Round Table produced a consensus to take immediate action on climate change. One of the key recommendations was to establish a provincial co-ordinating body called Climate Change Central, to be operated as a public/private partnership. Premier Ralph Klein announced its formation in November 1999 to implement the key directions and recommendations of Alberta's Climate Change Round Table. Climate Change Central is a catalyst for governments, municipalities, businesses, institutions, non-governmental organizations, and individuals to focus on climate change strategy, education, capacity building, and technology.

Premier Ralph Klein is the executive chair of Climate Change Central. The Alberta Environment Minister and David Tuer, President and CEO of PanCanadian Petroleum Limited, are the co-chairs. Thirteen business and community leaders bring a broad range of expertise to the board of Climate Change Central, including representatives from the environmental and academic communities, municipalities, and industries involved in climate change.

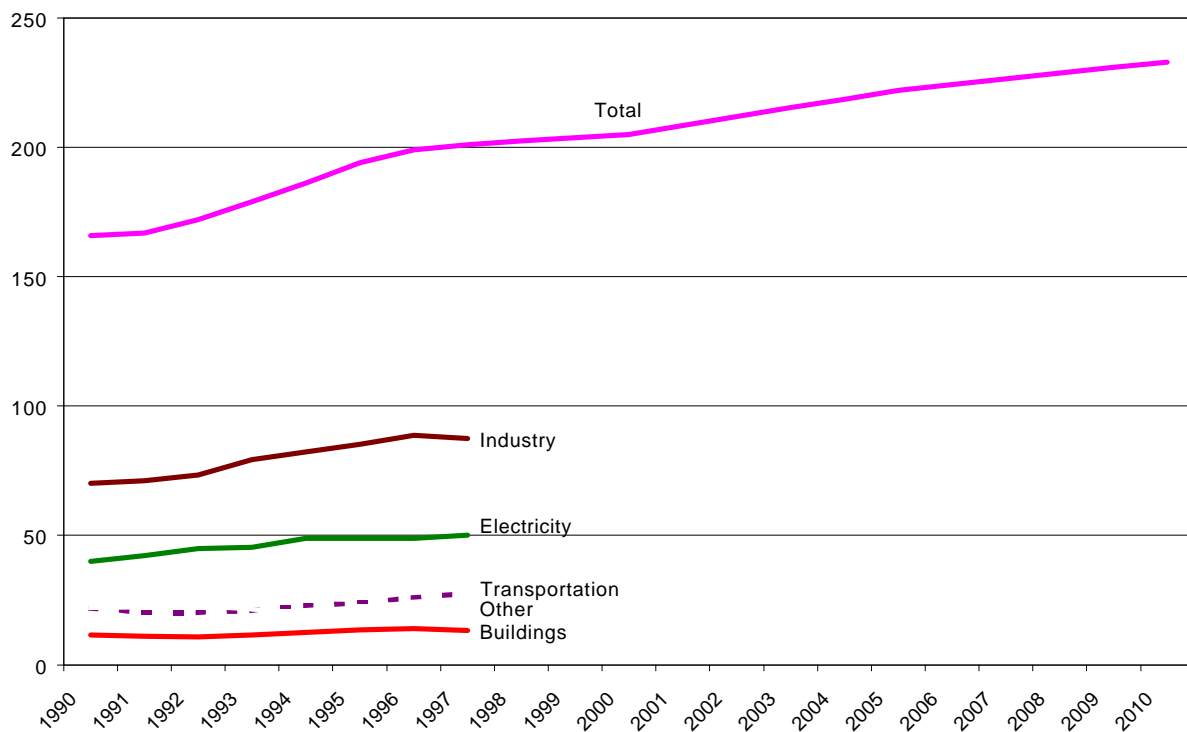
¹ Emissions data from: F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Population data from: <http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm>.

GDP data (at market prices) from: <http://www.statcan.ca/english/Pgdb/Economy/Economic/econ15.htm>

Note: The buildings sector covers residential, commercial and institutional buildings; pipelines are included under industry; stationary sources in forestry and agriculture are included under "other human activities."

Greenhouse Gas Emission Trends, 1990-2010 (Mt CO₂E)



Data for 1990-97 from:

F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Projections for 2000-2010 from:

National Climate Change Process Analysis and Modelling Group (1999), *Canada's Emissions Outlook, An Update*.

Alberta

26.5 / 100

Summary of Assessment

Element	Score Achieved	Possible Score
Transportation/Land Use Planning	4.0	15
Energy Utilities	0.5	15
Buildings	2.5	15
Industry	4.5	15
Greenhouse Gas Emissions Trading	1.0	10
Government House in Order	7.5	10
Other Sources of Greenhouse Gas Emissions	2.5	10
Technology Development	1.5	5
Enhancing Awareness and Understanding	2.5	5

Transportation / Land Use Planning**4 / 15**

Providing Fiscal Incentives to Promote the Purchase and Use of Fuel Efficient Vehicles**0 / 4**

The Alberta government has not created any such incentives. It believes that responsibility for improving the fuel economy of vehicles rests with the federal government, and it has urged the federal government to take action to strengthen fuel economy standards for new vehicles sold in Canada.

Changing the Taxation of Transportation Fuels to Promote Greenhouse Gas Emission Reduction**2 / 4**

The Alberta government has not taken any initiatives since 1997 to alter the taxation of different transportation fuels in a manner that promotes greenhouse gas emissions reduction. It is important to note, however, that the existing fuel tax structure does differentiate among transportation fuels. While gasoline and diesel are taxed at 9 cents/litre, propane is only taxed at 6.5 cents/litre, and natural gas and ethanol are not taxed at all.

Providing Funding for Public Transit**2 / 3**

The Alberta government has adopted some innovative mechanisms in recent years to provide municipalities with more funding to direct to public transit and other alternatives to the car. For example, five cents of provincial tax revenue from each litre of gasoline sold in Edmonton and Calgary (\$160 million) is now transferred directly to those municipalities. In other cities, a portion of provincial gasoline tax revenue is transferred as a grant on a per capita basis. While there are no restrictions on where this money can be spent, much of it has gone to public transportation, particularly expansion of light rail transit systems and bus system renewal.

Promoting Energy Efficiency through Land Use Planning**0 / 3**

The Alberta government has taken no action in this area as it feels that such activities fall exclusively under the mandate of municipal governments.

Reducing Highway Transportation Speeds**0 / 1**

The Alberta government has taken no action since 1997 either to reduce speed limits or to increase the enforcement of speed limits.

Energy Utilities 0.5 / 15

Establishing a Renewable Portfolio Standard 0.5 / 4

The Alberta government has not established a renewable portfolio standard for electricity generators in the province. A partial mark is given in recognition of the fact that Alberta's Small Power Development Act (November 17, 1988) did mandate the installation of some new renewable energy electricity generation facilities in Alberta. It is also worth noting that the deregulation of Alberta's electric utility industry has provided renewable energy suppliers with an opportunity to enter directly into the market, and no longer requires such suppliers to work with existing utilities.

Mandating Demand Side Management Activities 0 / 4

The Alberta government's deregulation of the electric utility industry does not include any regulatory or fiscal mechanisms to promote demand side management activities. Natural gas utilities also face no requirements to implement demand side management programs. In addition, the Alberta government's recent announcement of rebates to consumers for high natural gas and electricity prices is not linked to any efforts to promote demand side management activities that would reduce consumer vulnerability to future increases in prices. In fact, the Alberta government shut down its own energy efficiency branch several years ago.

Incorporating Environmental Costs into Energy Prices 0 / 4

The Alberta government has taken no action to incorporate the environmental externalities associated with different forms of energy into the price of energy sold by energy utilities. Furthermore, the recent auctioning off of much of the previously regulated generation (primarily coal) to third party "marketers" has established a new barrier to the introduction of any environmental costs because generators now have signed contracts with various third parties to provide a specific amount of power at a specified price from each of their plants.

Promoting Net Metering 0 / 2

The Alberta government has taken no action to promote net metering within its deregulated electricity market.

Disclosure of Generating Sources to Consumers 0 / 1

The Alberta government's deregulation of the electric utility industry does not require electricity retailers to inform customers about where their electricity is coming from.

Buildings 2.5 / 15

Mandated Energy Code for Buildings 1.5 / 4

The Alberta government has not adopted the National Energy Code for Buildings. This Code is more stringent than that which is currently in place in Alberta. The Alberta government does, however, require all buildings supported by provincial government funding to meet the National Energy Code for Buildings standard. The mark awarded was increased slightly to reflect the fact that this policy includes buildings like hospitals and schools.

Mandated Energy Code for Houses 0 / 4

The Alberta government has not adopted the National Energy Code for Houses, or the more stringent R-2000 standard. Alberta's existing residential building code does not match the energy performance requirements of these other codes and standards.

Incentives for Energy Efficiency Retrofits 1 / 3

The Alberta government has not provided any fiscal incentives to support the energy efficiency retrofit of residential and commercial buildings. Partial marks are given because Alberta has provided a small number of municipalities with "revolving" funds; these funds offer loans to support energy efficiency

investments that are subsequently repaid from energy bill savings. The Government also recently committed \$270 million towards the retrofit and modernization of existing schools, a portion of which will be aimed at incorporating new energy efficient technologies and materials into existing schools.

Promoting Community Based Retrofit Initiatives 0 / 3

The Alberta government has not supported any community-based energy efficiency residential retrofit initiatives since 1997.

Fiscal Incentives to Improve the Energy Efficiency of New Buildings 0 / 1

The Alberta government has no incentives in place to encourage the adoption of more energy efficient designs in the construction of new buildings.

Industry 4.5 / 15

Fiscal Incentives for Energy Efficiency Investments 0 / 4

The Alberta government has not established any fiscal incentives to promote investments in energy efficiency.

Project Approval Processes that Incorporate Greenhouse Gas Emission Considerations 1 / 3

The Alberta government's environmental impact assessment process asks project proponents to identify the impact of their project on greenhouse gas emissions, but has rarely insisted that any additional actions be taken to reduce greenhouse gas emissions as a condition of project approval.

Promotion of Co-Generation Facilities 2.5 / 3

With the opening of Alberta's electricity market to increased competition, co-generation has become the main source of new electricity generating capacity in recent years. In addition, the Alberta government has taken steps to encourage the capture of flared methane for power generation using microturbines. This has been done by removing royalty charges on captured flare gas and by exempting this electricity from restrictions within the Electric Utilities Act.

Reducing Support for Fossil Fuel Exploration and Development 0 / 3

The Alberta government has not significantly changed the fiscal treatment for fossil fuel exploration and development since 1997. Nonetheless, no mark was awarded because of the significance of actions taken in 1997. In that year, the federal government made a number of important tax changes that levelled the playing field for capital investments within the mining, oil sands and petroleum sectors. These tax changes were mirrored in provincial tax legislation and have resulted in an aggressively generous tax regime for the oil sands industry. Also in 1997, the Alberta government announced a clear and understandable royalty framework intended to provide regulatory certainty with respect to oil sands investment decisions. (The new framework simply formalized the royalty policy that had been developed incrementally through company-specific Crown Agreements over the previous years.) This package of changes has been a key factor in generating massive investments in new oil sands projects that have significantly exceeded the initial expectations of policy makers.

Binding Voluntary Covenants to Reduce Greenhouse Gas Emissions 1 / 2

The Alberta government has not entered into any formal binding voluntary covenants with industry to reduce greenhouse gas emissions. Nonetheless, part marks were awarded because the multistakeholder Clean Air Strategic Alliance (CASA) developed a framework for reducing emissions from flaring that was subsequently adopted as a commitment by both the petroleum industry and the Alberta Energy and Utilities Board. By the end of 1999, industry had successfully exceeded a 25% reduction target set initially for 2001, and work is now being undertaken through CASA to establish the next set of flaring reduction targets and to examine initiatives to reduce greenhouse gas venting in the industry.

Greenhouse Gas Emissions Trading	1.0 / 10
Government Position on Emissions Trading	0 / 4
The Alberta government has not taken a position on the role of a domestic emissions trading system in Canada's greenhouse gas mitigation strategy.	
Mandatory Greenhouse Gas Emissions Reporting	0 / 3
There are no mandatory requirements to report greenhouse gas emissions in Alberta. While Alberta's industrial base (particularly fossil fuel producers) is well represented in Canada's Voluntary Challenge and Registry program, this program does not require a consistent or standardized format for the reporting of greenhouse gas emissions.	
Action to Facilitate Emissions Trading	1.0 / 3
The Alberta government has a strong interest in two pilot greenhouse gas emission reduction credit trading initiatives. It is an active participant in the Greenhouse Gas Emission Reduction Trading pilot (GERT) based in British Columbia, and is a formal observer of the KEFI exchange based in the Alberta electricity sector. The Alberta government has not, however, indicated that it will recognize credits generated through these pilot programs against any potential future regulatory requirements. Moreover, the government is working to facilitate the participation of Alberta's private sector in the Kyoto Mechanisms. A workshop for the private sector on opportunities to participate in the Clean Development Mechanism in Latin America is being held in Fall 2000.	
Government House in Order	7.5 / 10
Greenhouse Gas Emission Reduction Target	2 / 2
The Alberta government established a goal to reduce greenhouse gas emissions from its own operations to 14% below 1990 levels by the year 2000. In fact, emissions had fallen to 17% below 1990 levels by 1998.	
Participation in the Voluntary Challenge Program	2 / 2
The Alberta government has provided a comprehensive greenhouse gas emissions inventory and action plan to Canada's Voluntary Challenge and Registry program. Alberta received a leadership award from the VCR in 1999 for having submitted the best action plan from a government.	
Program to Improve Energy Efficiency in Buildings	2 / 2
The Alberta government has made a commitment to conduct energy efficiency audits and implement retrofit measures in all of its buildings with more than 1,000 square metres of floor space.	
Program to Reduce Greenhouse Gas Emissions in Transportation Fleets	1.5 / 2
The Alberta government is putting in place measures to ensure that all vehicles leased by the government represent the best fuel efficiency within that vehicle class. The Alberta government also plans to undertake a program to identify and remove old and inefficient vehicles from the vehicle fleet. This mark was somewhat reduced because it is not clear what role alternative fuels play in procurement policy.	
Green Power Procurement	0 / 2
The Alberta government does not have a green power procurement program in place at this time.	

Other Sources of Greenhouse Gas Emissions 2.5 / 10

- Landfill Gas Regulation** 0 / 3
 The Alberta government has not taken any action to mandate the capture of methane from landfills.
- Promoting Greenhouse Gas Emission Reductions from Livestock** 0.5 / 2
 The Alberta government has produced some educational materials for farmers on actions that can be taken to reduce greenhouse gas emissions from livestock, resulting in partial marks for this category. Work is currently underway on standards for manure management and nutrient management that will explicitly incorporate greenhouse gas emission considerations.
- Support for Afforestation** 0 / 2
 The Alberta government has no official policy on the afforestation of lands. However, in response to the catastrophic fires in 1998 and 1999 that destroyed huge areas of reforested cut block areas, the government issued grants through the Forestry Resource Improvement Association of Alberta to establish regeneration in these areas.
- Protection of Forested Land** 1 / 2
 According to the World Wide Fund for Nature, Alberta had placed 10% of its land mass in parks and protected areas as of September 2000. While this is relatively high within Canada, there had been little increase in the percentage of land area protected over the preceding decade.
- Promoting Carbon Sequestration in Agricultural Soils** 1 / 1
 The Alberta government established the Alberta Reduced Tillage Initiative to encourage farmers to take actions to enhance carbon sequestration. It is supporting various education and demonstration activities through the \$5-million Alberta Environmentally Sustainable Agriculture Program (AESA).

Technology Development 1.5 / 5

- Support for Renewable Energy Technologies** 0 / 2
 The Alberta government is not providing any support for the development of renewable energy technologies at this time, although an Alberta Climate Change Technology strategy is being developed.
- Support for Energy Efficiency Technologies** 0.5 / 2
 The Alberta government is supporting research into improving the efficiency of coal and flare gas combustion. Marks were reduced because no research initiatives are currently being supported to improve energy efficiency in end-use applications.
- Support for Other Greenhouse Gas Emissions Reducing Technologies** 1 / 1
 The Alberta government is providing support for a number of projects including: geological sequestration of carbon dioxide in depleted oil wells and coal beds, the development of commercial uses for carbon dioxide, carbon sequestration in agricultural soils, landfill designs to control methane emissions, technologies addressing enhanced CO₂ recovery in power generation, and methane emissions reductions from livestock. It has also contributed \$50,000 to support the national BIOCAP initiative.
-

Enhancing Awareness and Understanding

2.5 / 5

Provincial Government Activities

1.5 / 3

The Alberta government is educating its own employees about climate change and greenhouse gas emission reduction opportunities at work and at home through the CO₂ Diet program with follow-up activities to maintain the interest level (e.g., quizzes and commuter challenges). Through the multi-stakeholder Clean Air Strategic Alliance, the Alberta government is supporting a public education and outreach initiative that starts in four pilot communities in 2000. The Alberta government has also produced a number of fact sheets and other materials on climate change, and has supported climate change workshops for teacher and presentations for school children. Finally, it has supported a project in the Kikino Metis settlement that also will identify greenhouse gas emission reduction opportunities.

Provincial Government Support for Other Education and Awareness Activities

1 / 2

The Alberta government is supporting educational initiatives on the subject of climate change that are targeted at schools (e.g., Destination Conservation, Climate Changes), communities (e.g., Sustainable Communities Initiative), and industry sectors (e.g., small and mid-sized enterprises). It is also working with stakeholders to design a public education and outreach “hub” and expects Climate Change Central to facilitate the development and implementation of additional public education and outreach projects.

BRITISH COLUMBIA

Current Greenhouse Gas Emissions Profile (1997) ²

Total emissions (Mt CO ₂ E)	61.9
Per capita emissions (t CO ₂ E / person)	15.6
Per unit GDP emissions (kg CO ₂ E / \$ GDP)	0.56

Sources of Emissions (1997)

Electricity and steam generation (%)	2.5
Buildings (%)	13
Transportation (%)	41
Industry (%)	31
Other human activities (%)	13

Climate Change Stakeholder Policy Development Process

The BC Greenhouse Gas Forum was initiated in 1997 and comprises representatives of local government, industry, business, labour, environmental groups and other interests. The Forum advises the Minister of Environment, Lands and Parks, and the Minister of Energy and Mines on climate change policy, and facilitates the development and implementation of greenhouse gas reduction measures. Forum reports include *Plan for Early Action* (1998) and *Promising Phase 1 Climate Change Measures* (2000).

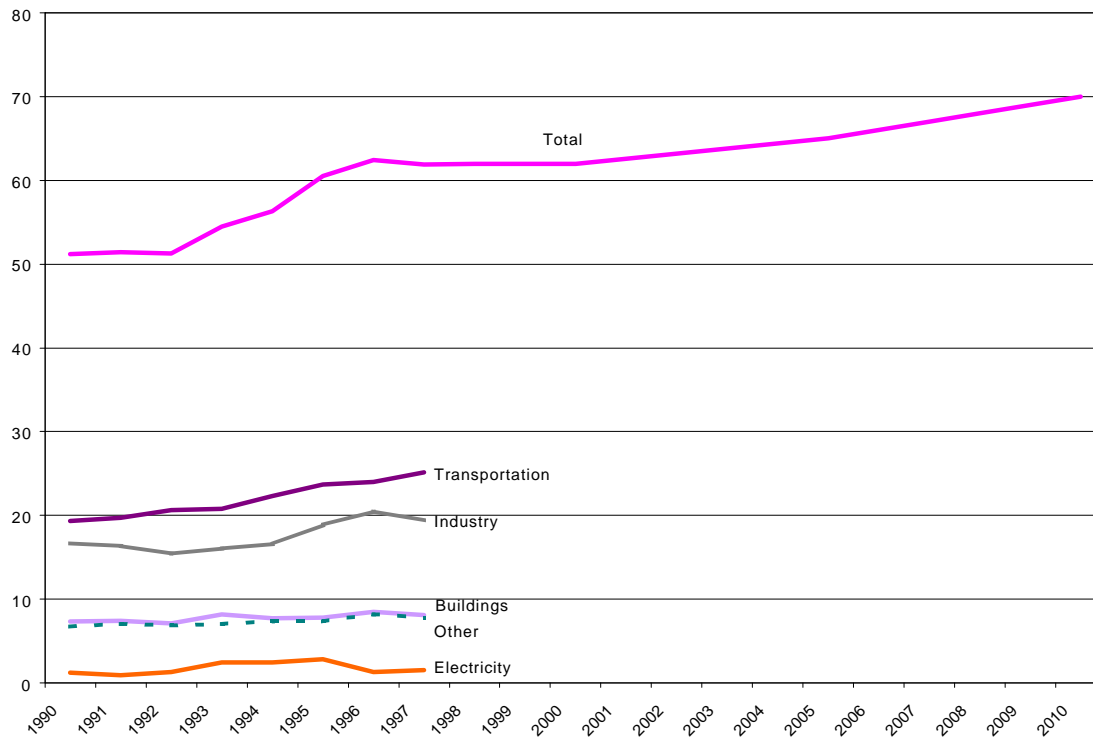
² Emissions data from: F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Population data from: <http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm>.

GDP data (at market prices) from: <http://www.statcan.ca/english/Pgdb/Economy/Economic/econ15.htm>

Note: The buildings sector covers residential, commercial and institutional buildings; pipelines are included under industry; stationary sources in forestry and agriculture are included under "other human activities."

Greenhouse Gas Emission Trends: 1990-2010 (Mt CO₂E)



Data for 1990-97 from:

F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Projections for 2000-2010 from:

National Climate Change Process Analysis and Modelling Group (1999), *Canada's Emissions Outlook, An Update*.

Note: Projected emissions for BC have been calculated from total projected emissions for BC plus the territories by using BC's proportion of this total in 1997 (96.2%).

British Columbia 30.5 / 100

Summary of Assessment

Element	Score Achieved	Possible Score
Transportation/Land Use Planning	7.0	15
Energy Utilities	2.5	15
Buildings	5.5	15
Industry	2.5	15
Greenhouse Gas Emissions Trading	1.5	10
Government House in Order	3.0	10
Other Sources of Greenhouse Gas Emissions	2.5	10
Technology Development	3.0	5
Enhancing Awareness and Understanding	3.0	5

Transportation / Land Use Planning

7 / 15

Providing Fiscal Incentives to Promote the Purchase and Use of Fuel Efficient Vehicles

1 / 4

In its 2000 Budget, the British Columbia government announced its intention to study and assess the implementation of a “feebate” system (rebates and fees) that would provide an incentive for consumers to choose more fuel efficient vehicles when purchasing a new vehicle. The government has also put in place a mandatory vehicle inspection and maintenance program in major urban centers that can help improve the fuel economy of poorly maintained vehicles.

Changing the Taxation of Transportation Fuels to Promote Greenhouse Gas Emission Reduction

2 / 4

The British Columbia government has put in place a motor fuel tax exemption for natural gas, 85% ethanol, and methanol blends of fuel and also has a preferential tax rate for auto-propane of 7% of the price. In the 1999 British Columbia Budget, a commitment was made to provide a tax exemption for ethanol blended gasoline (less than 85% ethanol) once a commercial scale ethanol plant is in operation in the province. The government has also indicated that it is pursuing a long-term general preferential tax policy for all alternative motor fuels that will see tax rates on these fuels phased in, based on market share and environmental benefits, with the maximum tax rate below the gasoline tax rate. Finally, the score was increased slightly to reflect the fact that the government provides rebates on provincial sales tax to support the purchase and retrofit of alternative fuel cars and buses (propane, natural gas, ethanol).

Providing Funding for Public Transit

2.5 / 3

The British Columbia government transfers a portion of gasoline and diesel taxes collected in the Greater Vancouver Regional District (4 cents/litre, \$85-million) and the Capital Regional District (2.5 cents/ litre, \$12-million) to support public transit and other vehicle use reduction alternatives. In addition, the government has committed \$2-million per year to develop infrastructure for cycling, and \$21-million to support the development of high occupancy vehicle and bus only lanes. Finally, \$1.167-billion has been committed to build the new Millennium Line for the Vancouver Skytrain system.

Promoting Energy Efficiency through Land Use Planning

1 / 3

The British Columbia government provides technical support to local and regional governments in the main urban growth areas to help them design settlement patterns and transportation modes that decrease vehicle use and shorten travel distances.

Reducing Highway Transportation Speeds 0.5 / 1

Highway speed limits on some long distance corridors have been increased to 100 km/hour from 80 km/hour and the mark has been somewhat reduced to reflect this. An extensive photo radar system has been implemented, in conjunction with public education programs, to reduce speeding and to increase enforcement of speed limits in the province.

Energy Utilities 2.5 / 15

Establishing a Renewable Portfolio Standard 0.5 / 4

While the British Columbia government has not mandated a renewable portfolio standard, BC Hydro (which generates 95% of BC's electricity) has committed to ensuring that 10% of new electricity generation capacity constructed in the province will come from "green" energy sources. The mark is low because this green energy commitment represents significantly less than 10% of BC Hydro's total generating capacity. It should be noted, however, that BC Hydro has set aside \$2-million to support the purchase of greenhouse gas emission reductions that can offset some growth in the utility's emissions.

Mandating Demand Side Management Activities 1 / 4

The British Columbia government has not mandated energy utilities to undertake demand side management (DSM) programs. The BC Utilities Commission has often required electric utilities to pursue some DSM activities and while BC Hydro has historically been a leader in DSM programs, their own programs have declined in recent years. Natural gas utilities are not required to implement DSM programs, but many do have some programs in place.

Incorporating Environmental Costs into Energy Prices 1 / 4

The British Columbia government requires BC Hydro to use a resource acquisition process that assesses environmental factors (such as greenhouse gas emissions), and social and other economic factors, as well as financial costs, in a multiple-accounts evaluation framework. To the extent that this results in the selection of resources that are not "least financial cost," then energy prices will be higher than they would otherwise be. The government is also implementing a tax shift pilot project to encourage value-added uses for softwood residue, including the development of technologies to produce fuel ethanol, bio-oils, other chemical byproducts and electricity.

Promoting Net Metering 0 / 2

There is currently no real support for net metering in British Columbia. BC Hydro does not offer net metering to its customers at this time.

Disclosure of Generating Sources to Consumers 0 / 1

There is no regulatory requirement in place in British Columbia for power generators to report either their fuel mix for the generation of electricity, or the environmental impacts of that generation.

Buildings 5.5 / 15

Mandated Energy Code for Buildings 1.5 / 4

The British Columbia government has not adopted the National Energy Code for Buildings on a provincial basis, but it does require all new publicly funded buildings to meet or exceed the code. A slightly increased mark was awarded because it appears the BC market has largely caught up to this code in most areas.

Mandated Energy Code for Houses 1 / 4

While the British Columbia government has not adopted the National Energy Code for Houses, partial marks were awarded because the British Columbia Building Code adopted energy standards in the mid-1990s that are stronger than this code in some areas and weaker than the code in other areas.

Incentives for Energy Efficiency Retrofits	1.5 / 3
<p>Through the British Columbia Buildings Corporation (BCBC), the British Columbia government sponsors a “Green Buildings” retrofit program that services provincially funded facilities only. Capital invested in the retrofit is repaid to the commercial lender from savings realized due to the retrofit. The Ministry of Health also provides some incentives for energy efficiency retrofits in hospitals. Finally, a provincial sales tax exemption is provided for certain energy conservation materials and equipment including insulation materials for buildings (e.g., various types of insulation material, double-paned windows, doors)</p>	
Promoting Community Based Retrofit Initiatives	1 / 3
<p>The BC government, through its Energy Aware Committee, works with interested local governments to promote and support the Community Energy Planning (CEP) initiative. Over the last two years the committee has conducted CEP workshops for local governments in the Greater Vancouver Regional District, the Central Okanagan, the Capital Regional District and the City of Abbotsford. These workshops help identify and implement energy efficiency improvement opportunities.</p>	
Fiscal Incentives to Improve the Energy Efficiency of New Buildings	0.5 / 1
<p>The British Columbia government tries to play a “match-making” role in support of the Federal government’s Commercial Building Incentive Program. Under its New Buildings Program, the Government of British Columbia intends to develop a policy to “green” all new provincially funded social capital facilities, making them more energy-, water- and materials-efficient. Pilot projects have been undertaken. A partial mark was awarded for this proposed policy.</p>	
<hr/>	
Industry	2.5 / 15
<hr/>	
Fiscal Incentives for Energy Efficiency Investments	0 / 4
<p>There are no significant fiscal incentives to encourage energy efficiency investments in industrial processes.</p>	
Project Approval Processes that Incorporate Greenhouse Gas Emission Considerations	1.5 / 3
<p>The British Columbia government is now considering the establishment of guidelines for greenhouse gas mitigation plans for projects reviewed under BC’s Environmental Assessment Process. Under the draft guidelines, plans would be submitted and approved as part of the overall project approval. Major projects going through this process are already required to have greenhouse gas mitigation plans in place and to examine the most technologically feasible and cost-effective means to control emissions. A slightly increased mark was provided in recognition of the existing requirement for larger projects.</p>	
Promotion of Co-generation Facilities	1 / 3
<p>Historically, there has not been significant support for co-generation from independent power producers in the province. Nonetheless, recent additions to generating capacity have begun to draw more often on wood waste and micro-hydro projects from independent power producers.</p>	
Reducing Support for Fossil Fuel Exploration and Development	0 / 3
<p>The British Columbia government has changed the royalty structure for oil and natural gas over the last few years, tying royalty levels to market prices and eliminating “floor pricing.” These changes will likely provide a stronger incentive for oil and gas exploration and development in British Columbia when market prices are low.</p>	
Binding Voluntary Covenants to Reduce Greenhouse Gas Emissions	0 / 2
<p>The British Columbia government has not established any binding voluntary covenants with industry to reduce greenhouse gas emissions.</p>	

Greenhouse Gas Emissions Trading 1.5 / 10

Government Position on Emissions Trading 0 / 4

The British Columbia government has not taken a position on whether such a policy instrument should be part of Canada's response to the Kyoto Protocol.

Mandatory Greenhouse Gas Emissions Reporting 0 / 3

The government of British Columbia does not require the reporting of greenhouse gas emissions by large commercial and industrial emitters.

Action to Facilitate Emissions Trading 1.5 / 3

The British Columbia government is spearheading and hosting the national Greenhouse Gas Emissions Reduction Trading (GERT) pilot project to assess the potential effectiveness of greenhouse gas emission reduction credit trading as a policy tool. A slightly higher mark was awarded in recognition of their central role in GERT. The government has made no commitment to recognize any greenhouse gas emission reduction credits against any potential future regulatory requirements.

Government House in Order 3 / 10

Greenhouse Gas Emission Reduction Target 0.5 / 2

In its 1995 submission to the Voluntary Challenge and Registry Program, the British Columbia government committed to stabilizing its greenhouse gas emissions at 1990 levels by the year 2000. Partial marks were awarded for this commitment. It is not at all clear, however, how the British Columbia government has performed with respect to this commitment.

Participation in the Voluntary Challenge Program 0 / 2

The British Columbia government last made a submission to Canada's Voluntary Challenge and Registry (VCR) program in November 1995. Since then, nothing has been submitted to the Registry. Importantly, the British Columbia government has never submitted a greenhouse gas emissions inventory to the VCR.

Program to Improve Energy Efficiency in Buildings 1.5 / 2

The British Columbia government has retrofitted provincial government buildings since the 1970s. These efforts have reduced energy consumption of targeted buildings by over 55%, and generated over \$120-million in total energy savings. The mark awarded was somewhat reduced because the comprehensiveness of these efforts is unclear.

Program to Reduce Greenhouse Gas Emissions in Transportation Fleets 1 / 2

The British Columbia Ministry of Transportation and Highways has purchased 150 natural gas or propane vehicles to replace aging fleet vehicles. Another 50 such vehicles are planned for delivery later in 2000 to the Ministry of Environment, Lands and Parks. Fifty natural gas buses have also been purchased in recent years.

Green Power Procurement 0 / 2

The British Columbia government has not established a green power procurement target.

Other Sources of Greenhouse Gas Emissions	2.5 / 10
Landfill Gas Regulation	1 / 3
<p>The BC government requires that landfill gas recovery and management systems be evaluated for landfills for which total capacity exceeds 100,000 tonnes. If it is determined that the emissions of non-methane organic compounds are expected to exceed 150 tonnes/year, the installation and operation of landfill gas recovery and management systems are mandatory. Venting of the collected gas must be avoided, using it instead as an energy supply or in a combustion process. The mark has been reduced, however, because there appears to be some variation in how this approach is being applied.</p>	
Promoting Greenhouse Gas Emission Reductions from Livestock	0 / 2
<p>The British Columbia government has no programs in place to address the reduction of greenhouse gas emissions from livestock operations.</p>	
Support for Afforestation	0 / 2
<p>There is no British Columbia government program to support afforestation.</p>	
Protection of Forested Land	1.5 / 2
<p>According to the World Wide Fund for Nature, 11.4% of British Columbia's land mass was designated as parks or protected areas in September 2000. This is the highest percentage of any jurisdiction in Canada and represents a significant increase over the past decade. At the same time, it is important to note that there remains a great deal of public debate on the extent to which BC forests are protected.</p>	
Promoting Carbon Sequestration in Agricultural Soils	0 / 1
<p>While no program is in place to encourage carbon sequestration in agricultural soils, partial marks were awarded in recognition of the fact that the government of British Columbia is researching the development of a policy for the accounting of agricultural soil sinks.</p>	
Technology Development	3.0 / 5
Support for Renewable Energy Technologies	1 / 2
<p>In its 2000 Budget, the British Columbia government provided \$300,000 for Ethanol BC and for research and development to produce ethanol from wood residue. It also plans to establish an ethanol (from wood waste) process development program at the University of British Columbia, with partial government and private sector funding. In addition, a \$1-million Green Venture Capital Program is designed to support the development of new environmental technologies and services, with a 30% provincial tax credit granted to investors who hold their investments in the technologies for at least five years. A \$3-million Green Economy Development Fund is also in place to support green technology demonstration projects between the research and development stage and the commercialization stage. Finally, a provincial sales tax exemption is provided for some solar, wind, and micro-hydro equipment.</p>	
Support for Energy Efficiency Technologies	1.5 / 2
<p>The British Columbia government continues to invest in the development of BC's fuel cell manufacturing industry, in the areas of technology, fuelling infrastructure and consumer product application. The province has invested \$8.6-million since 1997 to support the demonstration and commercialization of the Ballard hydrogen fuel cell technology in three transit buses in the Lower Mainland. A new partnership is currently being developed that would focus on establishing a national research center on fuel cells in BC, and testing fuel cells in stationary sites (e.g., buildings). Funding, which is expected to be between \$20- and \$30-million, is now being negotiated.</p>	
Support for Other Greenhouse Gas Emissions Reducing Technologies	0.5 / 1
<p>In 1999, the BC government implemented a 10% tax credit for eligible research and development including greenhouse gas emission reduction technology. In the 2000-2001 tax year, it is expected that this will amount to roughly \$15-million.</p>	

Enhancing Awareness and Understanding

3 / 5

Provincial Government Activities

2 / 3

The British Columbia government is involved in several initiatives aimed at educating the public about climate change, including: public education promotion and information materials, curriculum materials, community energy planning coordination, newspaper inserts, poster development, and website link and information updates. Expenses in 2000 are expected to increase over the 1998 (\$80,000) and 1999 (\$79,000) budget amounts.

Provincial Government Support for Other Education and Awareness Activities

1 / 2

The British Columbia government has contributed to partnerships with several BC-based organizations by providing technical advice and support to projects receiving funding from the federal Climate Change Action Fund. These include: the Canadian Climate Change Calculator, the Energy Aware Committee, BC Transit's Travel Options Program, Better Environmentally Sound Transportation's Off Ramp! Program, the Way to GO Program, and the Greening Schoolgrounds Program.

ONTARIO

Current Greenhouse Gas Emissions Profile (1997)³

Total emissions (Mt CO ₂ E)	196
Per capita emissions (t CO ₂ E / person)	17.4
Per unit GDP emissions (kg CO ₂ E / \$ GDP)	0.55

Sources of Emissions (1997)

Emissions from electricity and steam generation (%)	14
Emissions from buildings (%)	16
Emissions from transportation (%)	28
Emissions from industry (%)	31
Emissions from other human activities (%)	11

Climate Change Stakeholder Policy Development Process

The Ontario government has not established any formal multistakeholder consultative process to examine what actions Ontario should take to address climate change. Informal consultations with stakeholders have been undertaken by individual Ministries.

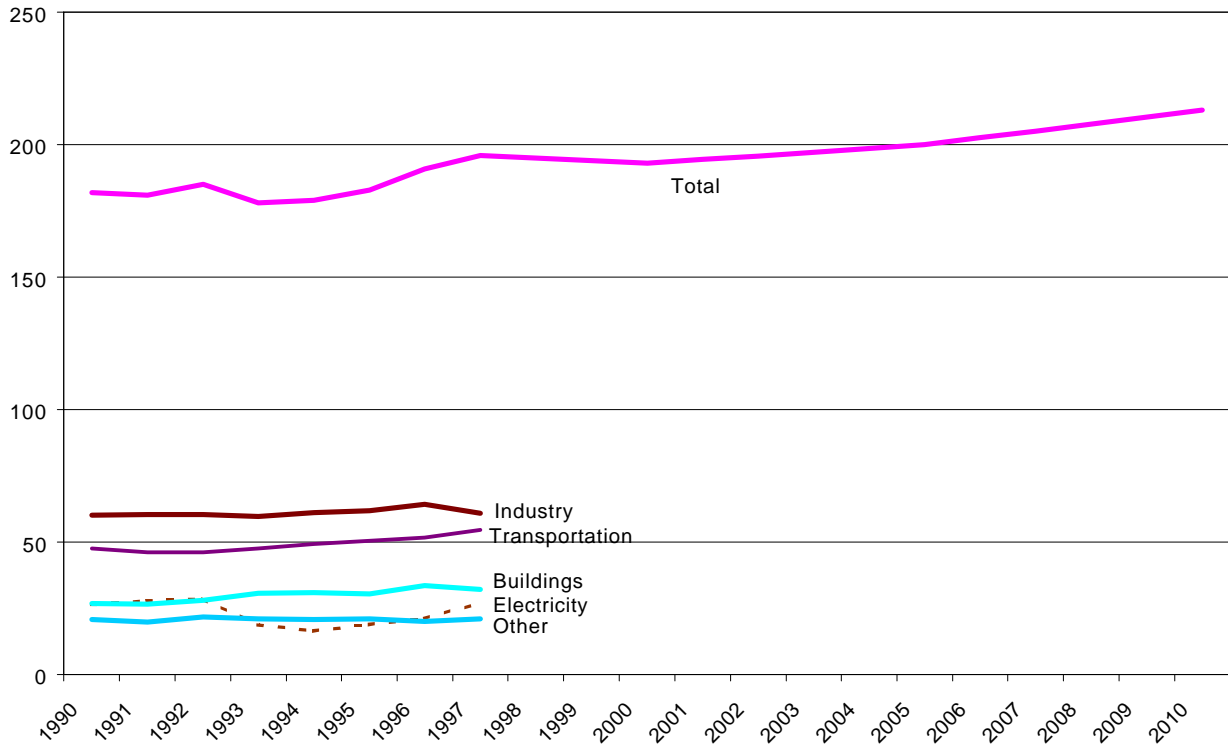
³ Emissions data from: F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Population data from: <http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm>.

GDP data (at market prices) from: <http://www.statcan.ca/english/Pgdb/Economy/Economic/econ15.htm>

Note: The buildings sector covers residential, commercial and institutional buildings; pipelines are included under industry; stationary sources in forestry and agriculture are included under "other human activities."

Greenhouse Gas Emission Trends, 1990-2010 (Mt CO₂E)



Data for 1990-97 from:

F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Projections for 2000-2010 from:

National Climate Change Process Analysis and Modelling Group (1999), *Canada's Emissions Outlook, An Update*.

Ontario

27.5 / 100

Summary of Assessment

Element	Score Achieved	Possible Score
Transportation/Land Use Planning	5.0	15
Energy Utilities	3.0	15
Buildings	4.0	15
Industry	3.5	15
Greenhouse Gas Emissions Trading	2.5	10
Government House in Order	3.5	10
Other Sources of Greenhouse Gas Emissions	5.0	10
Technology Development	0.5	5
Enhancing Awareness and Understanding	0.5	5

Transportation / Land Use Planning**5 / 15**

Providing Fiscal Incentives to Promote the Purchase and Use of Fuel Efficient Vehicles**1.5 / 4**

The Ontario government has had a “feebate” system in place for a number of years that provides a rebate for the purchase of fuel-efficient vehicles and charges a tax on fuel-inefficient vehicles. The mark has been reduced, however, because the program is poorly designed. Many types of vehicles, such as trucks, are not covered by the program. In addition, most of the vehicles that are included in the program are charged the same basic tax rate, providing no incentive for new car buyers to choose among vehicles on the basis of fuel efficiency. Ontario’s mandatory vehicle inspection and maintenance program, Drive Clean, can also help to improve the fuel economy of poorly maintained vehicles in some of Ontario’s larger urban centers.

Changing the Taxation of Transportation Fuels to Promote Greenhouse Gas Emission Reduction**2 / 4**

The Ontario government does impose different levels of tax on different types of transportation fuels, Current rates are: gasoline: 14.7 cents/litre; diesel: 14.3 cents/litre; propane: 4.3 cents/litre; and natural gas and ethanol fuels are not taxed. There has been no change in this taxation regime since 1997.

Providing Funding for Public Transit**0 / 3**

The Ontario government provides no targeted funding support for public transit operating or capital costs; this responsibility has been downloaded to municipal governments. It does, however, provide some support for the construction of car-pool lots at highway interchanges, which helps to facilitate car-pooling.

Promoting Energy Efficiency through Land Use Planning**1 / 3**

The Ontario government’s Ministry of Municipal Affairs and Housing has developed transit-supportive land use planning guidelines as well as a provincial policy statement that promotes compact urban form, mixed use development and transit-supportive densities. But there are no mandatory elements to these guidelines and no incentives are provided to encourage their application. The Ontario government’s Community Transportation Action Program has supported community initiatives to encourage more efficient use of local transportation resources.

Reducing Highway Transportation Speeds 0.5 / 1

The Ontario government has not made any changes to speed limits since 1997. Partial marks were given in recognition of the fact that Ontario has accelerated its use of driver behavior and enforcement blitzes, particularly on major highways.

Energy Utilities 3.0 / 15

Establishing a Renewable Portfolio Standard 0 / 4

The Ontario government has not established any requirements for electricity generators or distributors to ensure that a specific percentage of their product is generated from renewable energy sources. Opening the Ontario electricity market to competition may facilitate the entry of renewable energy technologies into the marketplace, but this is far from certain.

Mandating Demand Side Management Activities 2 / 4

The Ontario Energy Board has made it mandatory for natural gas utilities to undertake demand side management programs.

Incorporating Environmental Costs into Energy Prices 0 / 4

The Ontario Energy Board has made no effort to reflect the environmental impact of different forms of electricity generation in transmission rates, although electricity destined for export (primarily from coal and nuclear power) actually pays a lower transmission charge. Negotiations are underway to determine whether or not the environmental impacts of different forms of electricity generation will be reflected in differential distribution rates.

Promoting Net Metering 0.5 / 2

No provisions for net metering are now in place, although the province is examining options for net metering. Partial marks were awarded because Toronto Hydro does operate a pilot net metering program and this issue is being considered by the Ontario Energy Board.

Disclosure of Generating Sources to Consumers 0.5 / 1

Electricity retailers making an environmental claim for their product are required to disclose their generation fuel mix to customers (and the presentation of this data is not as disaggregated as it needs to be). The mark is somewhat reduced, however, in recognition of the fact that retailers not making environmental claims are not required to report their electricity source mix to consumers.

Buildings 4 / 15

Mandated Energy Code for Buildings 2 / 4

The National Energy Code for Buildings is referenced in the Ontario Building Code.

Mandated Energy Code for Houses 1.5 / 4

The Ontario government has not adopted the National Energy Code for Houses. Partial marks were awarded because Ontario's own Building Code includes requirements for energy efficiency in houses that are virtually equivalent to the requirements of the National Energy Code.

Incentives for Energy Efficiency Retrofits 0 / 3

The Ontario government has not provided any financial support or incentives for energy efficiency retrofits in commercial and institutional buildings. Other stakeholders have, however, developed some innovative financing mechanisms (e.g., Toronto Better Buildings Partnership).

Promoting Community Based Retrofit Initiatives 0.5 / 3

The Ontario Government stopped providing funding to its Green Communities program in the 1995/96 fiscal year. Recently, the province has started working with the Green Communities Association to develop a new pilot project designed to improve residential energy efficiency.

Fiscal Incentives to Improve the Energy Efficiency of New Buildings 0 / 1

The Ontario government provides no fiscal incentives to encourage the energy efficient design of new buildings.

Industry 3.5 / 15

Fiscal Incentives for Energy Efficiency Investments 0.5 / 4

The Ontario government does provide an information service for industrial facilities that identifies energy efficiency opportunities through utility bill analysis and on-site evaluation of equipment and processes. Partial marks have been awarded for this program. It should be noted, however, that Ontario used to provide a number of grant programs to support energy efficiency retrofits in industry, but these programs were discontinued in 1995/96.

Project Approval Processes that Incorporate Greenhouse Gas Emission Considerations 0 / 3

In theory, the Ontario Environmental Assessment Act does require proponents to report on the greenhouse gas emissions associated with their project. Generally, however, greenhouse gas emissions (and climate change implications) are often glossed over or overlooked by proponents. While proponents can be required to change their proposal before approval is granted, it is not clear that this has ever happened in response to a concern about greenhouse gas emissions.

Promotion of Co-generation Facilities 2 / 3

There are a growing number of co-generation facilities in Ontario and access to the grid is expected to be facilitated by the opening of the province's electricity market to competition.

Reducing Support for Fossil Fuel Exploration and Development 1 / 3

The Ontario government has not taken any steps that will facilitate new fossil fuel development in the province.

Binding Voluntary Covenants to Reduce Greenhouse Gas Emissions 0 / 2

The Ontario government has not established any binding voluntary covenants with industry to reduce greenhouse gas emissions.

Greenhouse Gas Emissions Trading 2.5 / 10

Government Position on Emissions Trading 0 / 4

The Ontario government has not taken a position on whether a domestic emissions trading system should be part of Canada's response to climate change.

Mandatory Greenhouse Gas Emissions Reporting 1 / 3

The Ontario government has mandated that electricity generators must report emissions of carbon dioxide. This reporting requirement will be extended to all major industrial, institutional and commercial operations in 2001.

Action to Facilitate Emissions Trading

1.5 / 3

The Ontario government has supported a Pilot Emission Reduction Trading project (PERT) to assess the potential effectiveness of emission reduction credit trading as a policy tool. While PERT's initial focus was targeted at other air pollutants, greenhouse gas emissions have become an important component of PERT's work. The government has, however, made no commitment to recognize any greenhouse gas emission reduction credits against any potential future regulatory requirements. Ontario is also committed to putting in place Canada's first major emissions trading system, focused on NO_x and SO_x emissions trading for electricity generation and other sectors. A slightly higher mark was awarded in recognition of this initiative.

 Government House in Order

3.5 / 10

Greenhouse Gas Emission Reduction Target

2 / 2

In its 1995 submission to the Voluntary Challenge and Registry Program, the Ontario government indicated that it had established a goal to reduce greenhouse gas emissions in government operations to 40% below 1990 levels by the year 2000. By 1996, emissions had fallen to 32% below 1990 levels as a result of actions taken, downsizing, and the declining carbon intensity of electricity from Ontario Hydro. Preliminary studies suggest that the provincial government has met its year 2000 target; final assessments are now underway.

Participation in the Voluntary Challenge Program

0 / 2

The Ontario government last made a submission to Canada's Voluntary Challenge and Registry (VCR) program in November 1997. Since then, nothing has been submitted to the Registry.

Program to Improve Energy Efficiency in Buildings

1 / 2

The Ontario government has taken action to improve the energy efficiency of provincial government buildings. A Government Energy Management program is available to all building operators seeking to reduce energy costs; these costs are now part of individual Ministry budgets. Retrofits have been done in a number of buildings, but marks were reduced because it is unclear if all buildings will actually be assessed and retrofitted.

Program to Reduce Greenhouse Gas Emissions in Transportation Fleets 0.5 / 2

The Ontario government's "fleet management project" was targeted at reducing greenhouse gas emissions from all government owned vehicles through a variety of techniques (e.g., downsizing, rightsizing, procurement). The extent to which these actions have been implemented is unclear and therefore only partial marks were awarded.

Green Power Procurement

0 / 2

The Ontario government has not established a green power procurement target.

 Other Sources of Greenhouse Gas Emissions

5 / 10

Landfill Gas Regulation

2 / 3

The Ontario government has passed a regulation mandating the capture and combustion of methane from all new and expanding landfills that have more than three million cubic metres of waste capacity. Such requirements may also be imposed on smaller sites on a case-by-case basis.

Promoting Greenhouse Gas Emission Reductions from Livestock

1 / 2

The Ontario government has developed a Best Management Practice guideline in the area of nutrient management planning.

Support for Afforestation 0.5 / 2

Under the Forestry Act, the Ontario government works with other agencies and landowners to pursue afforestation through agreements with landowners. There does not, however, appear to be a comprehensive afforestation strategy in place in the province.

Protection of Forested Land 1 / 2

According to the World Wide Fund for Nature, Ontario had designated 8.8% of its land mass as parks or protected areas as of September 2000. This represented a significant increase over September 1989. In addition, the Forest Resource Assessment Policy commits the government of Ontario to programs that will not result in a reduction of the size of the provincial forest.

Promoting Carbon Sequestration in Agricultural Soils 0.5 / 1

The Ontario government actively promotes soil conservation practices through its Environmental Farm Plan and has established a Soil Carbon Sequestration Steering Committee to identify ways Ontario could initiate a more aggressive program to enhance carbon sequestration in soils.

Technology Development 0.5 / 5

Support for Renewable Energy Technologies 0 / 2

Although Ontario does not specifically support renewable energy and energy efficiency technologies, the government does support technology development through its technology fund. Projects related to renewable energy and energy efficiency technologies can be considered for funding as long as they meet the technology fund criteria.

Support for Energy Efficiency Technologies 0 / 2

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Support for Other Greenhouse Gas Emissions Reducing Technologies 0.5 / 1

The Ontario government is supporting a number of initiatives in the agriculture sector that may reduce greenhouse gas emissions through enhanced soil carbon sequestration and reduced fertilizer use.

Enhancing Awareness and Understanding 0.5 / 5

Provincial Government Activities 0 / 3

The Ontario government has not published any public education materials on the issue of climate change. In fact, the Ministry of Environment's public information desk refers callers to federal government sources for information in this area. The Ontario government has produced a number of public education materials related to urban air quality (smog), but the vast majority of these materials fail to mention any linkage with climate change.

Provincial Government Support for Other Education and Awareness Activities 0.5 / 2

The Ontario government's "Partners-in-Air" school program recently added a climate change module to its materials. It continues to support and expand the development of web-based education materials related to energy conservation and renewable energy, including Ontario Youth Science and Technology Education Resources (OYSTER) and Science and Technology Activities for Youth (STAY).

QUEBEC

Current Greenhouse Gas Emissions Profile (1997)⁴

Total emissions (Mt CO ₂ E)	88.1
Per capita emissions (t CO ₂ E / person)	12.1
Per unit GDP emissions (kg CO ₂ E / \$ GDP)	0.47

Sources of Emissions (1997)

Emissions from electricity and steam generation (%)	0.15
Emissions from buildings (%)	15
Emissions from transportation (%)	36
Emissions from industry (%)	32
Emissions from other human activities (%)	16

Climate Change Stakeholder Policy Development Process

The Québec Interministerial Committee on Climate Change has established 11 multistakeholder working groups to examine the climate change issue and propose actions that can be taken to address climate change within the Québec context. The 11 groups focus on:

- transport
- energy consumption in buildings
- energy production
- forests
- agriculture
- industry
- economic instruments
- modelling and analysis
- science and adaptation
- public education
- land use planning

These groups have now completed their work and the Québec government will use their input to develop its climate change response strategy.

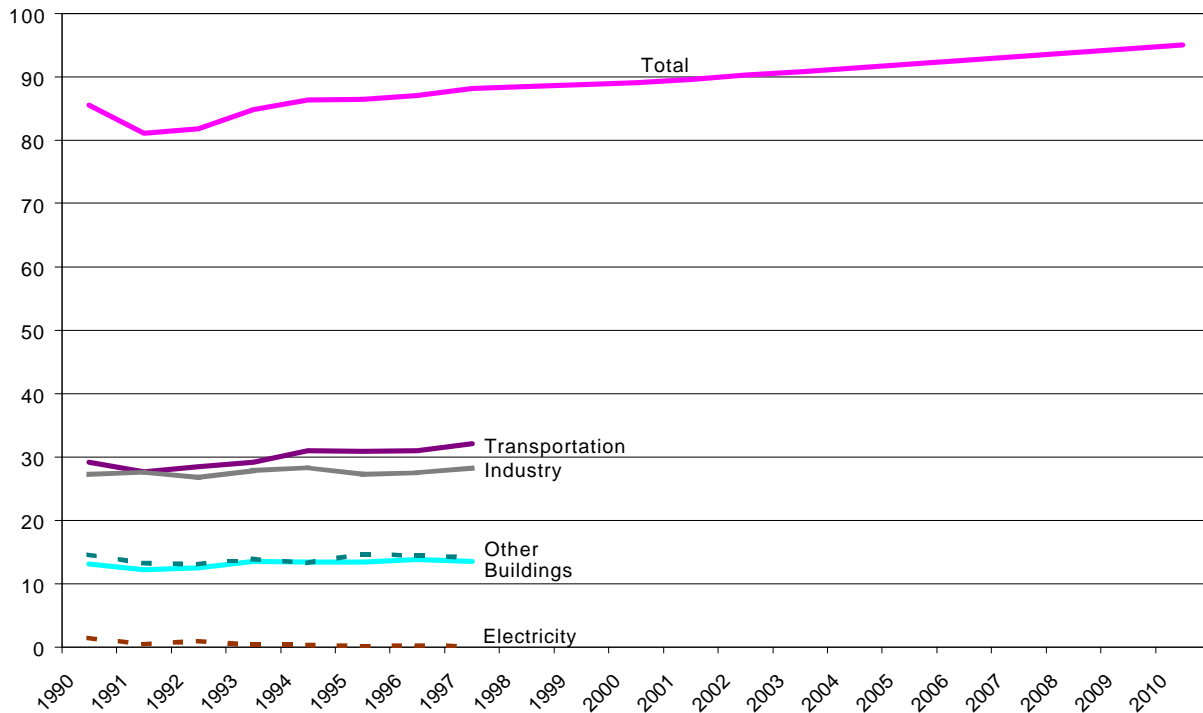
⁴ Emissions data from: F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Population data from: <http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm>.

GDP data (at market prices) from: <http://www.statcan.ca/english/Pgdb/Economy/Economic/econ15.htm>

Note: the buildings sector covers residential, commercial and institutional buildings; pipelines are included under industry; stationary sources in forestry and agriculture are included under "other human activities."

Greenhouse Gas Emission Trends, 1990-2010 (Mt CO₂E)



Data for 1990-97 from:

F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Projections for 2000-2010 from:

National Climate Change Process Analysis and Modelling Group (1999), *Canada's Emissions Outlook, An Update*.

Québec

22 / 100

Summary of Assessment

Element	Score Achieved	Possible Score
Transportation/Land Use Planning	4.5	15
Energy Utilities	3.0	15
Buildings	3.0	15
Industry	2.0	15
Greenhouse Gas Emissions Trading	1.5	10
Government House in Order	1.0	10
Other Sources of Greenhouse Gas Emissions	2.0	10
Technology Development	2.5	5
Enhancing Awareness and Understanding	2.5	5

Transportation / Land Use Planning 4.5 / 15

Providing Fiscal Incentives to Promote the Purchase and Use of Fuel Efficient Vehicles

0 / 4

The government of Québec presently has no such incentives in place.

Changing the Taxation of Transportation Fuels to Promote Greenhouse Gas Emission Reduction

1 / 4

The government of Québec taxes transportation fuel according to the following schedule: diesel at 16.2 cents/litre, and gasoline and gasohol (blends comprising any percentage of ethanol mixed with regular gasoline) at 15.2 cents/litre, while propane and natural gas are not taxed. No changes in tax rates have been put in place since 1997.

Providing Funding for Public Transit

2.5 / 3

The government of Québec provided \$260-million for public transit in 1998-1999. In addition, the province transfers 1.5 cents/litre from gasoline taxes collected in the Montréal area to support public transit in the Montréal metropolitan region (\$45-million in 1998-1999); the province also uses \$30 from each annual license plate renewal in the Montréal metropolitan area to support public transit (\$76-million in 1998/99). Finally, in the year 2000, the provincial government made a new commitment to provide more than \$2-billion in funds to support expansion of the Montréal subway system.

Promoting Energy Efficiency through Land Use Planning

1 / 3

The government of Québec has established a land use planning directive but there is no obligation for municipalities to abide by it. Supporting materials are made available to municipalities that choose to follow the guidelines.

Reducing Highway Transportation Speeds

0 / 1

There has been no action taken to reduce highway speed limits in Québec or to increase speed limit enforcement.

Energy Utilities 3.0 / 15

- Establishing a Renewable Portfolio Standard** 2 / 4
 The government of Québec has not established a low impact renewable energy portfolio standard. Nonetheless, the mark has been increased somewhat to reflect the government's support for the development of "Le Nordais"—Canada's largest wind energy project. An investment of \$160-million supported the installation of 133 wind turbines with a capacity of 100 MW at Cap-Chat and Matane in the Gaspésie region of the province.
- Mandating Demand Side Management Activities** 1 / 4
 The government of Québec does not currently require any energy utilities to pursue demand side management policies on a consistent basis, although there is some expectation that the energy board will soon make this a requirement for natural gas utilities.
- Incorporating Environmental Costs into Energy Prices** 0 / 4
 The government of Québec has taken no steps to incorporate environmental costs into energy prices in Québec.
- Promoting Net Metering** 0 / 2
 The government of Québec does not promote net metering at this time. All independent power producers sign a contract with Hydro-Québec that requires them to sell all power produced to the utility, which provides it to the independent power producer as if they were regular customers.
- Disclosure of Generating Sources to Consumers** 0 / 1
 The government of Québec does not require electricity producers and retailers to disclose to customers either the fuel mix used to generate electricity or the resulting greenhouse gas emission impacts.

Buildings 3 / 15

- Mandated Energy Code for Buildings** 0 / 4
 The government of Québec has not adopted the National Energy Code for Buildings but uses it as a guide in construction.
- Mandated Energy Code for Houses** 0.5 / 4
 The government of Québec has not yet adopted the National Energy Code for Houses, but partial marks were awarded because such a policy is being actively considered.
- Incentives for Energy Efficiency Retrofits** 2 / 3
 The Agence de l'efficacité énergétique du Québec (AEE) provides grants to commercial and institutional building owners to support energy analysis and feasibility studies in the area of energy efficiency retrofits. If actions are subsequently taken that reduce energy bills by 10%, the AEE will cover 50% of the cost of the energy analysis or feasibility studies (to a maximum amount).
- Promoting Community Based Retrofit Initiatives** 0.5 / 3
 The government of Québec is presently supporting two pilot initiatives to promote energy efficiency retrofits at the community level. This support is at the level of \$25,000 per year for each project.
- Fiscal Incentives to Improve the Energy Efficiency of New Buildings** 0 / 1
 There are currently no incentives offered by the government of Québec to support energy efficient design in the construction of new buildings.
-

Industry 2 / 15

Fiscal Incentives for Energy Efficiency Investments 0 / 4
 The government of Québec currently has no fiscal incentives in place to encourage investments by industry to improve energy efficiency.

Project Approval Processes that Incorporate Greenhouse Gas Emission Considerations 1 / 3
 When projects are being considered for approval in Québec, proponents are encouraged to provide information on their greenhouse gas emissions. It is not clear, however, that proponents are asked to make adjustments to projects in response to their potential greenhouse gas emissions implications.

Promotion of Co-Generation Facilities 0 / 3
 There are still many barriers to co-generation projects obtaining access to the grid and Hydro-Québec has not yet taken significant action to remove those barriers.

Reducing Support for Fossil Fuel Exploration and Development 1 / 3
 The government of Québec has made no significant changes to its tax structure to influence the level of activity of fossil fuel exploration and development in Québec.

Binding Voluntary Covenants to Reduce Greenhouse Gas Emissions 0 / 2
 The government of Québec has not entered into any binding agreements with companies or industry sectors that are targeted at greenhouse gas emissions reduction.

Greenhouse Gas Emissions Trading 1.5 / 10

Government Position on Emissions Trading 0 / 4
 The government of Québec has not made any official statements on the potential role of a domestic emissions trading system in Canada's greenhouse gas emission reduction strategy.

Mandatory Greenhouse Gas Emissions Reporting 0.5 / 3
 Since the early 1970s, the Ministère de l'Environnement has catalogued an inventory of atmospheric pollutants. This inventory collects data on the sources of gaseous or particulate substances generated by combustion processes, industrial processes and the transportation sector. Included in the inventory are greenhouse gases targeted by the Kyoto Protocol, namely carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Some 400 Québec enterprises voluntarily provide relevant information to the database but there is no mandatory requirement to participate. Partial marks were awarded in recognition of this effort by government to obtain some data.

Action to Facilitate Emissions Trading 1 / 3
 The government of Québec is a partner in the national Greenhouse Gas Emissions Reduction Trading (GERT) pilot project to assess the potential effectiveness of greenhouse gas emission reduction credit trading as a policy tool. It has made no commitment to recognize any greenhouse gas emission reduction credits against any potential future regulatory requirements.

Government House in Order	1 / 10
Greenhouse Gas Emission Reduction Target	0 / 2
The government of Québec has not yet established an official greenhouse gas emissions reduction target for government operations.	
Participation in the Voluntary Challenge Program	0 / 2
A registry program for voluntary measures (EcoGESTe) was created by the Department of Environment and the Department of Natural Resources. The Québec government, through its departments, bodies and state-owned corporations, intends to set an example for voluntary greenhouse gas emissions reduction in its everyday activities and general program management. At this time, there is no mechanism for public access to submissions made to the EcoGESTe program.	
Program to Improve Energy Efficiency in Buildings	0.5 / 2
The government of Québec promotes the improvement of energy efficiency in provincially owned buildings such as hospitals and schools and in all buildings directly related to government operations. It is unclear, however, to what extent such promotional efforts are successful and therefore marks have been reduced. The Québec Department of Education has recently asked the government to amend the regulations governing construction contracts to allow all parts of the education system to award contracts for energy improvements to buildings that can be paid out from the energy savings.	
Program to Reduce Greenhouse Gas Emissions in Transportation Fleets	0.5 / 2
The government of Québec promotes the use of public transport between Québec and Montréal and other large cities. Some hybrid, high mileage vehicles are now being ordered for the fleet of the Ministries of the Environment and Transportation. The mark awarded was somewhat reduced because it is unclear if a comprehensive fleet management program is in place.	
Green Power Procurement	0 / 2
The government of Québec has not made a commitment to procure low impact green power for government operations.	
Other Sources of Greenhouse Gas Emissions	2 / 10
Landfill Gas Regulation	0 / 3
At present, there are no regulations mandating the capture and combustion of landfill gas in Québec. Nonetheless, approximately 30% of the landfill gas produced in Québec is currently captured and burned. Future regulatory changes could, however, significantly increase this number.	
Promoting Greenhouse Gas Emission Reductions from Livestock	1 / 2
The government of Québec has in place some research and educational programs to improve manure management practices and animal diet. These initiatives are being undertaken to promote better farming practices and do not yet draw a strong link to greenhouse gas emissions and climate change. The mark has been reduced because the education materials are not supported by incentives or regulation.	
Support for Afforestation	0.5 / 2
The government of Québec recently supported the afforestation of 145 square kilometres of private land.	
Protection of Forested Land	0.5 / 2
According to the World Wide Fund for Nature, Québec had designated 4.3% of its land mass as a park or protected area as of September 1999. This represented one of the lowest percentages in the country, and most of the area was only under interim protection.	

Promoting Carbon Sequestration in Agricultural Soils

0 / 1

The government of Québec is not actively promoting the sequestration of carbon in agricultural soils within the province.

Technology Development

2.5 / 5

Support for Renewable Energy Technologies

1 / 2

The government of Québec has set up a wind measurement program that will allow it to produce a preliminary map of the province's wind energy potential in the next couple of years. It is also supporting research in wind energy technologies and is trying to develop wind energy projects in partnership with some developing countries. In addition, the provincial government is supporting research on the use of biomass for co-generation.

Support for Energy Efficiency Technologies

1 / 2

The Government of Québec created the Agence de l'efficacité énergétique in 1997. As part of its mandate, this agency provides \$825,000 to support energy efficiency research and development projects.

Support for Other Greenhouse Gas Emissions Reducing Technologies

0.5 / 1

The government of Québec is involved in other areas of research and development that result in the overall reduction of greenhouse gas emissions. These include improvements to transportation technology in the development of efficient electricity storage for electric cars, improved fertilization techniques in agriculture, livestock handling and feeding, and forestry management.

Enhancing Awareness and Understanding

2.5 / 5

Provincial Government Activities

1 / 3

The government of Québec has undertaken some initiatives to inform the public about climate change issues. These include a folder entitled "Québec and the Climate Change Challenge," a calculator wheel that measures the quantity of fuel burned and CO₂ produced by different types of vehicles, and information on the Department of Environment website designed to inform children aged 10-14 about climate change. The Québec Department of Transportation has also developed a number of public education materials to promote public transport and ride-sharing.

Provincial Government Support for Other Education and Awareness Activities

1.5 / 2

The Ministère de l'Environnement du Québec provided about \$220,500 to other organizations to help them produce education materials (or activities including public education materials) on climate change in 1999. For example, in the spring of 1999, the Fondation québécoise en environnement toured the province to inform and raise general awareness of the climate change problem with an exhibit complete with video, information booklet and posters. In 2000, the amount provided was \$452,730. Other departments (Natural Resources, Transport) and the Agence de l'efficacité énergétique also provided funding for educational initiatives on climate change. The Association professionnelle des météorologistes du Québec inc. (APMQ), a non-profit group of scientists, gives free Climate Change presentations to about 15,000 students aged 12 to 15 in Québec.

SASKATCHEWAN

Current Greenhouse Gas Emissions Profile (1997) ⁵

Total emissions (Mt CO ₂ E)	60
Per capita emissions (t CO ₂ E / person)	58.7
Per unit GDP emissions (kg CO ₂ E / \$ GDP)	2.07

Sources of Emissions (1997)

Electricity and steam generation (%)	24
Buildings (%)	5.9
Transportation (%)	16
Industry (%)	32
Other human activities (%)	22

Climate Change Stakeholder Policy Development Process

Saskatchewan Energy and Mines (SEM) and Saskatchewan Environment and Resource Management (SERM) are jointly responsible for the development of the provincial response to climate change. SEM and SERM have established the Saskatchewan Stakeholder Advisory Committee on Climate Change to assist in the development of Saskatchewan's response to climate change. This group was formed in April 1998 from interested stakeholder groups representing business, environmental groups, and other organizations. Over the past two years, approximately 12 meetings have been held and various groups have continued to join.

After the options reports of the 16 national Issue Tables were released, the Advisory Committee selected the seven reports that were most relevant to Saskatchewan. Seven Working Groups of Advisory Committee members were formed, each with a provincial government Co-Chair and a Co-Chair from a non-government organization. Each Working Group examined one of the seven selected options reports and, from the suite of options included in each report, selected those measures or recommendations they thought would make sense for Saskatchewan to implement.

The recommendations of the seven Working Groups will be presented to the two Ministers responsible for SEM and SERM prior to the upcoming Joint Meeting of Ministers of Energy and Environment in October. The two Ministers will jointly make a submission to their colleagues in Cabinet to obtain approval for Saskatchewan's position at the October meeting of Ministers and to obtain resources required to implement Saskatchewan's climate change strategy beginning in April 2001.

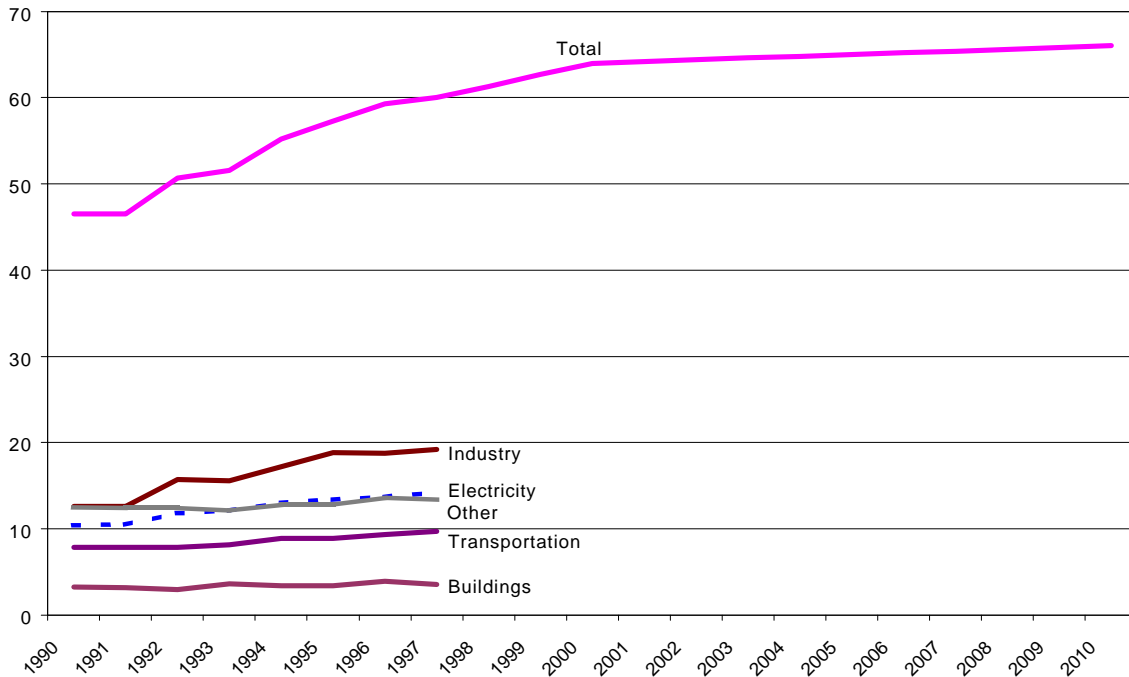
⁵ Emissions data from: F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Population data from: <http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm>.

GDP data (at market prices) from: <http://www.statcan.ca/english/Pgdb/Economy/Economic/econ15.htm>

Note: The buildings sector covers residential, commercial and institutional buildings; pipelines are included under industry; stationary sources in forestry and agriculture are included under "other human activities."

Greenhouse Gas Emission Trends, 1990-2010 (Mt CO₂E)



Data for 1990-97 from:

F. Neitzert, K. Olsen and P. Collas (1999), *Canada's greenhouse gas inventory: 1997 emissions and removals with trends*, Environment Canada; and (for 1997 provincial data) Frank Neitzert, Greenhouse Gas Division, Pollution Data Branch, Environment Canada, personal communication, January 13, 1999.

Projections for 2000-2010 from:

National Climate Change Process Analysis and Modelling Group (1999), *Canada's Emissions Outlook, An Update*.

Saskatchewan 20.5 / 100

Summary of Assessment

Element	Score Achieved	Possible Score
Transportation/Land Use Planning	3.5	15
Energy Utilities	0.0	15
Buildings	3.5	15
Industry	2.5	15
Greenhouse Gas Emissions Trading	1.5	10
Government House in Order	3.0	10
Other Sources of Greenhouse Gas Emissions	3.0	10
Technology Development	2.5	5
Enhancing Awareness and Understanding	0.5	5

Transportation / Land Use Planning 3.5 / 15

Providing Fiscal Incentives to Promote the Purchase and Use of Fuel Efficient Vehicles

0.5 / 4

The government of Saskatchewan has not put in place any fiscal incentives to promote the purchase or use of fuel efficient passenger vehicles. With regard to freight transportation, however, the government has dedicated resources to providing marketing and legal advice to groups seeking to establish short-line railways in the province. In the last 10 years, more than 1,100 km of short-line track have been developed, providing an alternative to more greenhouse gas-intensive truck transport. A partial mark has been awarded for these efforts in the area of freight transport.

Changing the Taxation of Transportation Fuels to Promote Greenhouse Gas Emission Reduction

2 / 4

The Saskatchewan government taxes different transportation fuels at different levels. Gasoline and diesel are taxed at a rate of 15 cents/litre, propane is taxed at 9 cents/litre, and ethanol and natural gas are not taxed at all. The decision to remove the tax on ethanol was made after 1997.

Providing Funding for Public Transit

0.5 / 3

The government of Saskatchewan does not fund any municipal public transit infrastructure development; this is solely the responsibility of the municipality. Funds are available, however, to support the provision of transit services for the disabled in 78 municipalities throughout Saskatchewan, and the government does provide a subsidy for inter-city bus service.

Promoting Energy Efficiency through Land Use Planning

0.5 / 3

The Planning and Development Act (1983) mentions that, among other things, policies for the management and preservation of agricultural land and activities, forested areas, natural and wildlife areas, water storage areas, and the use and conservation of energy, may be part of a Development Plan adopted by municipal council. The mark was reduced because this guidance is very general. In addition, there is no incentive in place or provincial requirement to incorporate these aspects in a Plan.

Reducing Highway Transportation Speeds

0 / 1

There have been no changes made to major highway speed limits in the province of Saskatchewan in recent years, and no significant new resources have been provided to support speed limit enforcement.

Energy Utilities 0 / 15

Establishing a Renewable Portfolio Standard 0 / 4

The government of Saskatchewan has not established a renewable portfolio standard for electricity generation in the province.

Mandating Demand Side Management Activities 0 / 4

There is no requirement for energy utilities in Saskatchewan to undertake demand side management programs. Any initiatives that are undertaken are pursued on a voluntary basis.

Incorporating Environmental Costs into Energy Prices 0 / 4

The government of Saskatchewan has not taken any steps to incorporate environmental costs associated with different forms of energy into the price of energy sold by utilities.

Promoting Net Metering 0 / 2

The Saskatchewan government has taken no action to promote net metering within its power generation system, but SaskPower is open to small power producers tying into the grid.

Disclosure of Generating Sources to Consumers 0 / 1

Electric power generators are required to report the fuel mix used to generate their power in Saskatchewan when seeking permits for their facilities, but it is not mandatory to provide this information directly to customers.

Buildings 3.5 / 15

Mandated Energy Code for Buildings 1.5 / 4

The government of Saskatchewan has not adopted the National Energy Code for Buildings, but partial marks were given because it has been argued that most current construction practice in Saskatchewan already exceeds this code. Two new buildings recently constructed by a Crown owned corporation come close to meeting the much more stringent C-2000 standard.

Mandated Energy Code for Houses 0 / 4

The government of Saskatchewan has not adopted the National Energy Code for Houses. While the provincial government does support education and training related to the more advanced R-2000 standard, very few homes built in Saskatchewan in 1999 met this standard.

Incentives for Energy Efficiency Retrofits 1.5 / 3

The government of Saskatchewan's Residential Rehabilitation Assistance Program (RRAP) provides forgivable loans to low-income homeowners and renters to rehabilitate their property to a minimum standard of health and safety. In about 40% of these projects, work is undertaken that will improve the energy efficiency of the building. SaskPower, the provincially owned utility, recently started the "Energy Solutions Program," which offers a package of audit and financing options for commercial buildings through an energy service company. An "energy management initiative" is also being considered in Saskatchewan to provide information to encourage health facilities to make affordable improvements to obtain optimum energy efficiency and cost benefits. Finally, the provincial government offers an ice rink and commercial building energy audit service through the Saskatchewan Research Council.

Promoting Community Based Retrofit Initiatives 0.5 / 3

The Saskatchewan government does provide some support for the delivery of Natural Resources Canada's Energuide for Houses program in Saskatchewan. This program identifies energy efficiency retrofit opportunities, but provides no financial assistance to proceed with the retrofits.

Fiscal Incentives to Improve the Energy Efficiency of New Buildings 0 / 1
 The Saskatchewan government offers no incentives to support the incorporation of energy efficiency design features in new buildings.

Industry 2.5 / 15

Fiscal Incentives for Energy Efficiency Investments 0 / 4
 The government of Saskatchewan has not established any fiscal incentives to promote investments in energy efficiency for the industrial sector.

Project Approval Processes that Incorporate Greenhouse Gas Emission Considerations 1 / 3
 The government of Saskatchewan does ask proponents to provide estimates of greenhouse gas emissions associated with projects seeking approval. There are efforts to encourage energy efficiency and the use of best available technologies, but it is not clear that many proponents have actually been required to take actions in pursuit of those ends.

Promotion of Co-Generation Facilities 1.5 / 3
 Barriers to co-generation projects are beginning to come down in Saskatchewan and large co-generation projects are now being considered as the first option for new generating capacity. A new co-generation plant was opened at the Husky Upgrader in Lloydminster last year, and another is being planned at a potash mine this year. Co-generation presently accounts for 7% of provincial electricity generation capacity, but this is expected to increase steadily in the years to come.

Reducing Support for Fossil Fuel Exploration and Development 0 / 3
 To better compete for the market share of oil and gas companies flooding into Alberta to explore for and develop fossil fuels, the Saskatchewan government has adjusted some of its tax and royalty provisions for the oil and gas sector. The last changes in this area were made in 1998 and have encouraged new developments in Saskatchewan by increasing deductions from royalties and lowering the tax rate. As well, new provisions to encourage enhanced oil recovery using CO₂ are now being evaluated.

Binding Voluntary Covenants to Reduce Greenhouse Gas Emissions 0 / 2
 The Saskatchewan government has not entered into any formal binding voluntary covenants with industry to reduce greenhouse gas emissions.

Greenhouse Gas Emissions Trading 1.5 / 10

Government Position on Emissions Trading 0.5 / 4
 The government of Saskatchewan has not taken a position in favor of or against adopting a domestic emissions trading system as an instrument to be used as a part of Canada's response to climate change. Partial marks were awarded, however, because the government has become directly involved in a greenhouse gas offset project with SaskPower (see "Action to Facilitate Emissions Trading" below).

Mandatory Greenhouse Gas Emissions Reporting 0 / 3
 While a number of large industries have been required to report on their greenhouse gas emissions as a permitting requirement, there is no regulation mandating greenhouse gas emissions reporting.

Action to Facilitate Emissions Trading 1.0 / 3
 Saskatchewan Environment and Resource Management (SERM) has entered into a Carbon Offset Agreement with SaskPower. Under this agreement, SaskPower will pay for the planting of five million trees in the provincial forest and SERM has agreed to transfer any carbon credits generated through

this action (potentially six million tonnes) to SaskPower. At this time, it remains unclear if such carbon credits will be recognized under any future emissions trading system. The Saskatchewan government, through Saskatchewan Energy and Mines, is also participating in the national Greenhouse Gas Emissions Reduction Trading (GERT) pilot project to assess the potential effectiveness of greenhouse gas emission reduction credit trading as a policy tool. It has made no commitment to recognize any greenhouse gas emission reduction credits against any potential future regulatory requirements.

Government House in Order 3.5 / 10

Greenhouse Gas Emission Reduction Target 0.5 / 2

The government of Saskatchewan has not adopted a greenhouse gas emission reduction target for government operations. It has, however, made a commitment to reduce energy consumption in government operations by 20%. In 1997, the government indicated to the Voluntary Challenge and Registry (VCR) that it hoped to meet this goal by 2005; it is not clear if this target date still stands. Only partial marks were awarded because the target refers to energy use, not greenhouse gas emissions.

Participation in the Voluntary Challenge Program 0 / 2

The government of Saskatchewan last made a submission to the VCR in 1997. It has not provided a greenhouse gas emissions inventory to the VCR, but the 1997 submission did describe some actions the government planned to take to reduce greenhouse gas emissions.

Program to Improve Energy Efficiency in Buildings 2 / 2

The government of Saskatchewan is working to improve the energy efficiency of government-owned buildings by 20% through energy performance contracting. This program, however, does not include health facilities and schools.

Program to Reduce Greenhouse Gas Emissions in Transportation Fleets 1 / 2

The government of Saskatchewan began testing special prototype trucks for sanding and snowplow operations in 1999 that will reduce the number of vehicles needed to provide the same level of service. In addition, speed governors are installed on engines, the fleet is being converted to tandem trucks as opposed to single axle where applicable, and a fleet management fuel tracking system is in place that helps indicate when tune-ups are needed.

Green Power Procurement 0 / 2

The government of Saskatchewan has not made a green power procurement commitment for its own operations.

Other Sources of Greenhouse Gas Emissions 3 / 10

Landfill Gas Regulation 0 / 3

The government of Saskatchewan does not mandate the capture of methane gas from landfill sites. This partly reflects the fact that there are few large landfills in Saskatchewan. Steps have been taken, however, to regionalize the landfill system, creating a smaller number of larger landfills and increasing the potential to pursue such policies in the future.

Promoting Greenhouse Gas Emission Reductions from Livestock 1 / 2

The Saskatchewan government runs a genetics and breeding (plant and livestock) program to improve yields, crop health, and nutrient uptake (feed efficiencies in livestock). It also sponsors a manure management program that aims to encourage the use of manure as a resource to improve crop production and soil quality. These programs promote actions that will help reduce fertilizer use and energy inputs while also improving the carbon sequestration capacity of the soil. Marks were reduced to reflect the fact that the educational effort is not supported by regulatory or fiscal policies; furthermore, the provincial government is actively supporting rapid expansion of the hog industry in the province.

Support for Afforestation 0.5 / 2
 The government of Saskatchewan currently is only afforesting a few small plots of land, but it is studying the potential for some pilot afforestation initiatives in the province.

Protection of Forested Land 0.5 / 2
 According to the World Wide Fund for Nature, Saskatchewan had designated 6% of its land mass as parks or protected areas as of September 2000. This is less than most other jurisdictions in Canada. In addition, the Saskatchewan government recently announced a plan to double the size of the forest industry in the province.

Promoting Carbon Sequestration in Agricultural Soils 1 / 1
 The Saskatchewan government sponsors a number of soil conservation programs that enhance the capacity for soil to sequester carbon dioxide. For example, one government program is aimed at adjusting agricultural practices to reduce the loss and enhance the productivity of valuable topsoil by practicing reduced tillage, zero till, field shelterbelts, grass strips, and strip cropping.

Technology Development 2.5 / 5

Support for Renewable Energy Technologies 1 / 2
 The provincial government will provide grants of up to \$200,000 to parties interested in developing fuel ethanol production facilities in a wholesale capacity. SaskPower is planning to purchase wind power from new wind farms in the province in response to the federal government's decision to buy green power for its facilities

Support for Energy Efficiency Technologies 0.5 / 2
 The government of Saskatchewan does little more than support some voluntary and education programs (e.g., R-2000, energy hotline) related to end-use energy efficiency. It does, however, provide royalty and tax credits to oil and natural gas producers for approved research aimed at minimizing the environmental impact (including greenhouse gas emissions reduction) of the oil and gas industry.

Support for Other Greenhouse Gas Emissions Reducing Technologies 1 / 1
 The government of Saskatchewan is a co-funder of the International Test Center for Carbon Dioxide Capture, providing over \$3-million in 2000 to support, with the federal government, the development of technologies to capture carbon dioxide produced by the energy sector. It is also investing \$2.4-million (in 2000) in support of the Weyburn monitoring project to assess the integrity of the geological sequestration of carbon dioxide.

Enhancing Awareness and Understanding 0.5 / 5

Provincial Government Activities 0.5 / 3
 The government of Saskatchewan has done relatively little to support public education on climate change. Some of the activities undertaken include a resource package for teachers and some web-based materials. SaskPower and SaskEnergy have used the ABC program to promote awareness of climate change among their employees.

Provincial Government Support for Other Education and Awareness Activities 0 / 2
 The government of Saskatchewan has provided few resources to other organizations to support public education and outreach on climate change. It appears small amounts of money have been provided by a number of different departments, but almost all support for climate change activities in the province has come from the Federal Climate Action Fund.

Appendix A: The Framework Used to Assess Provincial Government Performance on Climate Change

Transportation (15 points)

1. Has the provincial government established any fiscal incentive that is tied to the fuel efficiency of vehicles sold or owned in the province? (4 points)
 - 0 points: no incentive established
 - 1 point: significant non-fiscal incentive established
 - 2 points: a fiscal incentive established for new vehicles or existing vehicles
 - 4 points: fiscal incentives established for both new and existing vehicles

 2. Has the provincial government taken any steps to differentiate the relative prices of transportation fuels with different carbon intensities? (4 points)
 - 0 points: no relative pricing of fuels
 - 1 point: relative pricing, but no preferential treatment for ethanol fuels
 - 2 points: relative pricing with preferential treatment for ethanol fuels
 - 4 points: changes made since 1997 to increase taxes on gasoline and diesel fuels

 3. How much funding does the provincial government provide for public transit service and infrastructure expansion and upgrades? (3 points)
 - score determined qualitatively on the basis of information obtained in the course of the review

 4. Has the provincial government developed any land use planning guidelines that seek to maximize energy efficiency and minimize environmental impact? (3 points)
 - 0 points: no guidelines developed
 - 1 point: guidelines in place
 - 2 points: an incentive structure established to promote use of the guidelines
 - 3 points: mandatory requirements in place

 5. Has the provincial government taken any steps to decrease highway speed limits or significantly increase enforcement of highway speed limits in the last five years? (1 point)
 - 0 points: no changes
 - 1 point: some change
-

Electricity (15 points)

1. Has the provincial government established a renewable portfolio standard for electricity generation in the province? (4 points)
 - 0 points: no standard
 - 1 point: non-legislated standard in place
 - 3 points: standard of 5% to 10%
 - 4 points: standard of more than 10%

 2. Has the provincial government established policies mandating energy utilities to consider and pursue demand side management policies? (4 points)
 - 0 points: no requirement
 - 1 point: requirements sometimes imposed
 - 2 points: a mandated requirement for electric utilities or natural gas utilities
 - 4 points: a mandated requirement for both electric utilities and natural gas utilities

 3. Has the provincial government established policies (taxes on fossil fuels or credits for renewable energy) that incorporate environmental externalities into the pricing of electricity? (4 points)
 - 0 points: no policies in place
 - 1 point: considering or studying such policies
 - 4 points: policies in place

 4. Has the provincial government established a regulatory framework in support of net metering? (2 points)
 - 0 points: no policies in place
 - 2 points: support for net metering

 5. Has the provincial government required electricity retailers to disclose to customers the fuel mix used to generate electricity and the resulting greenhouse gas emission impacts? (1 point)
 - 0 points: no action taken
 - 1 point: requirement in place
-

Buildings (15 points)

1. Has the provincial government adopted an energy code for buildings? (4 points)
 - 0 points: no code adopted
 - 1 point: National Energy Code for Buildings adopted for provincial government facilities
 - 2 points: National Energy Code for Buildings adopted
 - 4 points: C-2000 code adopted
2. Has the provincial government adopted an energy code for houses? (4 points)
 - 0 points: no code adopted
 - 2 points: National Energy Code for Houses adopted
 - 4 points: R-2000 code adopted
3. Has the provincial government created any regulatory requirements or does it provide any fiscal incentives for energy efficiency retrofits of buildings? (3 points)
 - score determined qualitatively on the basis of information obtained in the review
4. Does the provincial government provide financial support for the establishment of community based energy efficiency initiatives (e.g., Green Communities)? (3 points)
 - score determined qualitatively on the basis of information obtained in the review
5. Does the provincial government provide any financial incentives to encourage improved energy efficiency in new buildings being constructed? (1 point)
 - 0 points: no incentives
 - 1 point: some incentive

Industry (15 points)

1. Has the provincial government put in place any tax incentives to encourage industry to invest in energy efficiency? (4 points)
 - 0 points: no incentives provided
 - 1 point: incentives tied to a limited number of products
 - 2 points: incentives tied to a limited number of investments
 - 4 points: incentives tied to a broad range of investments and products
 3. Does the provincial government assess, and establish requirements around greenhouse gas emissions reduction when environmental approvals of industrial projects are provided? (3 points)
 - 0 points: never
 - 1 point: rarely
 - 2 points: commonly
 - 3 points: always
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4. Has the provincial government established a framework that allows easy access to the grid for electricity produced from industrial co-generation facilities? (3 points)
 - score determined qualitatively on the basis of information obtained in the review
5. How has provincial government support (subsidies, grants, structure of tax incentives) for fossil fuel exploration and development changed since 1997? (3 points)
 - 0 points: provincial government support increased since 1997
 - 1 point: provincial government support has remained the same
 - 3 points: provincial government support decreased since 1997
2. Has the province entered into any binding voluntary covenants with industry to reduce greenhouse gas emissions? (2 points)
 - 0 points: no covenants in place
 - 1 point: one covenant in place
 - 2 points: more than one covenant in place

Facilitating Emissions Trading (10 points)

1. Has the provincial government made any statements supporting the use of domestic emissions trading in Canada's action plan to implement the Kyoto Protocol? (4 points)
 - 0 points: no statements made
 - 2 points: statements made supporting the use of greenhouse gas emission reduction credit trading in Canada's greenhouse gas management strategy
 - 4 points: statements made supporting the use of greenhouse gas emissions allowance trading in Canada's greenhouse gas management strategy
 2. Has the provincial government mandated greenhouse gas emission reporting from large emitters? (3 points)
 - 0 points: no requirement in place
 - 1 point: reporting of some greenhouse gas emissions is required
 - 2 points: reporting of all greenhouse gas emissions is required
 - 3 points: reporting of all greenhouse gas emissions is required under a standardized methodology and third party verification
 3. Has the provincial government acted to facilitate greenhouse gas emissions trading in the province? (3 points)
 - 0 points: no action taken
 - 1 point: support for pilot greenhouse gas emission trading initiatives (e.g., GERT / PERT)
 - 3 points: commitment to recognize greenhouse gas emission reduction credits against any potential future regulatory requirements
-

Government House in Order (10 points)

1. Has the provincial government established a greenhouse gas emission reduction target for government operations? (2 points)
 - 0 points: no target established
 - 1 point: a target of 6% below 1990 levels has been established
 - 2 points: a target more stringent than the Kyoto target has been established
 2. Did the provincial government make a submission to the Voluntary Challenge and Registry Program in 1999? (2 points)
 - 0 points: no submission
 - 1 point: only a greenhouse emissions inventory or an action plan provided
 - 2 points: a greenhouse emission reduction action plan and a greenhouse emissions inventory provided
 3. Did the provincial government have a program in place in 1999 to improve the energy efficiency of provincially owned buildings? (2 points)
 - 0 points: no program
 - 1 point: program to retrofit some buildings
 - 2 points: program to retrofit most buildings
 4. Did the provincial government have a program in place in 1999 to reduce greenhouse gas emissions from provincial transportation fleets? (2 points)
 - 0 points: no program
 - 1 point: program to improve fleet management (e.g., downsize / rightsize) or procurement requirements in the areas of fuel efficiency and alternative energy
 - 2 points: program to improve fleet management and procurement requirements in the areas of fuel efficiency and alternative fuels
 5. Did the provincial government have a green power procurement program in 1999? (2 points)
 - 0 points: no program
 - 1 point: commitment to purchase 10% of power from low-impact renewable sources
 - 2 points: commitment to purchase more than 10% of power from low-impact renewable sources
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Other Sources of Greenhouse Gas Emissions (10 points)

1. Did the provincial government have any policies in place in 1999 to require the capture and combustion of methane gas from landfills? (3 points)
 - 0 points: no policies in place
 - 1 point: regulated landfill gas capture and flaring for new landfills
 - 2 points: regulated landfill gas capture and flaring for new and existing landfills
 - 3 points: regulated landfill gas capture and flaring for new and existing landfills and regulations banning compostables from landfills

 2. Did the provincial government have any programs in place in 1999 to encourage farmers to reduce greenhouse gas emissions from livestock? (2 points)
 - 0 points: no programs in place
 - 1 point: a program is in place related to either manure management and animal diet
 - 2 points: programs in place for both manure management and animal diet

 3. Does the provincial government support afforestation? (2 points)
 - score determined qualitatively on the basis of information obtained in the review

 4. What percentage of forested land was in protected areas in 1999? (2 points)
 - score determined qualitatively with the assistance of data from the World Wide Fund for Nature

 5. Did the provincial government have any programs in place in 1999 to encourage farmers to adopt practices that would enhance carbon sequestration in agricultural soils? (1 point)
 - 0 points: no programs in place
 - 1 points: programs in place
-

Promoting Technology Development (5 points)

1. How much support did the provincial government provide for research, development and demonstration of renewable energy technologies in 1999? (2 points)
 - scoring to be determined qualitatively based on the data received; programs targeted specifically at renewable energy technologies are required for points to be awarded
2. How much support did the provincial government provide for research, development and demonstration of energy efficiency technologies in 1999? (2 points)
 - scoring to be determined qualitatively based on the data received; programs targeted specifically at energy efficiency technologies are required for points to be awarded
3. How much support did the provincial government provide for research, development and demonstration of other greenhouse gas emission reducing technologies in 1999? (1 point)
 - scoring to be determined qualitatively based on the data received

Enhancing Awareness and Understanding (5 points)

1. Did the provincial government produce and distribute any public education materials on climate change in 1999? (3 points)
 - scoring to be determined qualitatively based on the data received – factors to be considered include the range of media used, as well as the distribution and potential audience
 2. How much support did the provincial government provide to other organizations to help them produce education materials on climate change in 1999? (2 points)
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