

NATIONAL REPORT CARD ON ENERGY EFFICIENCY

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2ND ANNUAL REPORT CARD ON GOVERNMENT ACTIVITIES

INTRODUCTION TO YEAR TWO

This is the second *National Report Card on Energy Efficiency* produced by the Canadian Energy Efficiency Alliance. Last year's Report Card identified a basis from which future improvements in support for energy efficiency activities by government jurisdictions across Canada can be considered. Government commitments have varied with a general trend of under resourcing energy efficiency activities given the challenges of responding to climate change concerns. This year's Report Card examines climate change in greater depth and provides an indication of how committed our governments are with respect to investing in the most economically sensible means of addressing climate change - *improving energy efficiency*.

Across Canada large industrial and commercial operations are improving processes, adopting new technologies and thereby increasing energy efficiency. The Report Card looks at what Canadian governments are doing to support these efforts, as well as initiatives for improving energy efficiency of our homes, offices and the equipment we use. This review does not include the efficiency activities related to transportation.

WHAT IS CLIMATE CHANGE?

As reported by Ministers Anderson and Goodale, climate change "*has become the most profound economic challenge to face Canada since World War II*". Increases in greenhouse gases such as carbon dioxide, methane and nitrous oxide are being trapped in our atmosphere due largely to the combustion of coal, oil and natural gas, which have led to global temperatures rising. In fact, the past two decades have been the warmest on record and many scientists agree that it is due to human activities. The linkage to recent severe weather events is uncertain, however, weather-related insurance claims have increased 900 percent in the last decade, (as indicated in graph).

WHY SHOULD WE BE CONCERNED?

Warmer temperatures can lead to more severe weather events, flooding and erosion and increased risk of pests, diseases and fires in our forests and farms. It can also alter the climates that support different ecosystems. These changes can impact on the range and viability of plants and animals.

WHAT IS CANADA'S RESPONSE TO CLIMATE CHANGE?

www.climatechange.gc.ca

To respond to the problems posed by a changing climate, approximately 150 industrialized nations met in 1997 to commit to reduce greenhouse gas emissions in Kyoto. Along with 38 developed countries Canada signed on to the Kyoto Protocol, which if ratified, will commit us to reducing our emissions of greenhouse gases to 6% below 1990 levels by the years 2008-2012.

In an effort to reach these commitments, Canada has launched two major initiatives: the *Voluntary Challenge and Registry* and the *National Implementation Strategy* through the National Climate Change Secretariat.

Voluntary Challenge and Registry Inc.

Under Canada's *National Action Program on Climate Change* the Voluntary Challenge and Registry Program was launched in 1995 to call on Canadian governments and industry to voluntarily take actions that limit or reduce net greenhouse gas emissions. Participants are requested to submit a Letter of Intent, an Action Plan and provide annual Progress Reports.

In an effort to measure the government's commitments to the requirements of the VCR,

the Alliance investigated the official registry. This is what we found:

See VCR Inc. Page 7

National Implementation Strategy

In early 1998, the federal, provincial and territorial Ministers of Energy and the Environment met and approved a process that included more than 450 leading experts from a broad cross-section of government, business, academic community, environmental groups to examine the impacts, costs

See National Implementation Strategy Page 7

CANADIAN
Energy Efficiency Alliance

TEN FEATURES OF AN ENERGY EFFICIENCY LEADER

Governments have an important role to play in making energy efficiency happen. The Alliance has identified ten specific measures that we expect governments in Canada to have in place in order to be energy efficiency leaders. The ten measures fall under three categories.

Minimum Standards and Regulations

1. Each jurisdiction in Canada must have in place, or reference, an enforceable building code that specifies minimum energy performance requirements for all new (residential and commercial) buildings. Improvements to the energy efficiency performance requirements for buildings must be reviewed on a regular basis with the goal of raising minimum standards. Standards must be at levels equivalent to or more efficient than the Model National Energy Code for Buildings and/or ASHRAE 90.1.
2. Each jurisdiction must have in place or be subject to legislation that mandates minimum energy efficiency standards for equipment and appliances sold in that jurisdiction. The number of products and efficiency standards should be reviewed on a continuous basis with a schedule for advancing minimum efficiency standards in the market-place.
3. Each jurisdiction must have in place a regulated mechanism to support energy efficiency activities in the market place where monopoly gas or electric distribution companies operate. An arms-length Commission or Board should oversee the achievement of energy efficiency performance levels with regulatory mechanisms to reward high performance and penalize under achievement.

Supporting the Energy Efficiency Market Place

4. Each jurisdiction should offer financial support packages in the form of low interest loans, loan guarantees or lines of credit, to investments in energy efficiency upgrades.
5. Each jurisdiction should offer building and equipment labeling programs that identify or reward the top performing products. Examples of these programs are the R-2000 HOME Program and the Energy Star program. Each province should investigate the adoption of common labeling approaches for recognizing the most efficient products available on the market.
6. Each jurisdiction should have in place programs that support training, demonstration and product availability for energy efficiency. This may be achieved through regional energy efficiency centres in partnerships with regional and national delivery partners.

Government Leadership

7. Each government must have in place a program to improve the energy efficiency of all government buildings and operations. These programs should use the most efficient technologies and accept pay-back periods of ten years or more.
8. Each jurisdiction must have a detailed strategic plan in place that identifies energy efficiency strategies and targets, to form the basis of achieving emission reductions and energy performance goals.
9. Each jurisdiction must have in place a monitoring, reporting and evaluation program that provides regular, public reporting on progress toward achieving energy efficiency and emission reduction targets.
10. Each jurisdiction must recognize their role in helping to shape a vibrant market-place for energy efficiency. The goal of governments ought to be the creation of supportive policies and programs that allow for the activities of corporate and non-government entities to proceed unencumbered.

This report does not in anyway mean to imply that governments are the only, or even primary, source of energy efficiency in Canada. In fact, corporations and individuals invest far more in energy efficiency in Canada than do governments. However, governments play a critical role in setting standards, supporting training, facilitating energy efficiency choices through information and regulating energy efficiency in utility monopolies.

Last year, we identified a section on "What Governments Can Do to Improve" energy efficiency in the Report Card. We suggested:

- Increase public accessibility to information** - information is necessary for people to make informed choices about energy efficiency
- Improve accountability and verify results** - without adequate measurement and monitoring governments are not able to report their achievements
- Improve Building Codes** - there needs to be better coordination and consistency in Canadian building standards, with increased efficiency requirements in all jurisdictions
- Increase regulated minimum product standards** - higher efficiency standards can be set and more products can be included. The greatest constraints on this activity are government will and the availability of resources.

WHAT ARE GOVERNMENTS REALLY DOING?

British Columbia

www.gov.bc.ca

As part of BC's response to climate change, the province is developing a Clean Energy Strategy that will be supported by two new significant initiatives: the Green Economy Initiative and Green Buildings BC.

Through this work, more effort is being focussed on innovative approaches to energy efficiency and greenhouse gas reductions, public outreach, pilot projects, and support for research and development on energy efficiency and energy production and use. It is encouraging to see a renewed vigor coming from a province that has historically been a leader. While the new Strategy is still under development, it does show improvement over last year's commitments to energy efficiency.

Saskatchewan

www.gov.sk.ca

Saskatchewan Energy and Mines' energy efficiency activities have remained the same as last year. The province has not initiated any new energy efficiency programs this year. They consider their participation in the R-2000 HOME program to be sufficient effort. The province still has not enacted a building code or energy efficiency act and shows no sign of leadership in energy efficiency. The province has not met basic requirements for VCR action plans. Given the province's reliance on coal-fired electricity generation, they are missing large opportunities for efficiency and emission reductions. Their performance is not likely to help Canada achieve its stated green house gas reduction goals.

Alberta

www.gov.ab.ca

The Government of Alberta has submitted its 4th Annual Progress Report to the VCR and has received Gold status for Champion level reporting requirements, requiring that targets be exceeded and provincial emissions be less than 1990 levels. By the end of 1998/99, the Government of Alberta had reduced its emissions by more than 17%, exceeding its target of 14% - largely

due to the retrofits in government-owned buildings. In 1999, Premier Klein announced the formation of Climate Change Central, a public-private partnership that will focus on technology, education and building capacity, and strategies for climate change. Retrofitting buildings has been the focus of attention under the new climate change regime, which includes a \$170 million school modernization and renovation program.

Through the Government's Rural Utilities Program, the province continues to develop natural gas distribution infrastructure in remote Alberta communities, allowing fuel switching away from more carbon intensive fuel sources. Energy efficiency infrastructure and support from the government, particularly in a deregulated market, however, still need additional efforts to bring them up to the average in other jurisdictions.

Manitoba

www.gov.mb.ca

Manitoba Conservation, formerly known as Manitoba Department of Energy and Mines, completed a major updating of the Manitoba Building Code's minimum energy standards for houses and efforts have been undertaken to promote its implementation. Manitoba Conservation began participation in a joint pilot program with Environment Canada, Manitoba Hydro and the Association of Manitoba Municipalities to identify and audit energy efficiency, water conservation and greenhouse gas mitigation opportunities in municipal operations.

Ontario

www.gov.on.ca

The Ontario government's performance on energy efficiency has increased somewhat from last year. Through the provincial Climate Change Fund, resources are committed to investigate energy efficiency opportunities and explore options for the development of renewable energy. Results of these planning efforts are unclear, however expectations are mounting regarding Ontario's response to climate change. In June of this year, the province passed the 10th regulation under the *Energy*

Efficiency Act which will set minimum efficiency levels for six new products and they are reviewing a number of completed performance standards for possible regulation under the act. In response to the new *Energy Competition Act* it is still not clear whether Ontario will undertake the necessary measures to support energy efficiency in an emerging competitive electricity market. The government has not developed any specific plans to date and this may be a significant weakness in their greenhouse gas emissions reduction strategy given the impending market opening and the need to set clear rules.

Quebec

www.aee.gouv.qc.ca

The Agence de l'efficacité énergétique du Québec continues to show leadership within their own operations by maintaining staff, providing quality buildings and introducing three new energy efficiency programs during this past year with a budget of \$4.5 million. Many of the energy efficiency programs are aimed at residential and institutional buildings and at supporting energy efficiency retrofits for low-income populations. Programs such as Programme Novoclimat, which operates like the R-2000 HOME Program, are targeted at new homes in order to meet high efficiency standards that improve overall building quality and air quality. Minimum efficiency standards are also regulated for electric and fossil fuel equipment. Utilizing the National Building Codes, Quebec buildings are built to energy conservation standards.

Newfoundland and Labrador

www.gov.nf.ca

The Department of Works, Services & Transportation activities have remained the same as last year, however an estimated \$10 million has been budgeted for three new energy performance contracts that will achieve close to 75% of the provincial buildings, while the remainder will be covered next year. The Department of Health has also taken the lead in retrofitting a total of 23 health care facilities since 1993. Savings within this Department are significant.

Grade A
(4.0 GPA)
Exceeding Expectations

Grade B
(3.0 GPA)
Progressing well in most areas

Grade C
(2.0 GPA)
Meeting basic expectations but room for improvement

Grade D
(1.0 GPA)
Needs improvement

Grade F
(<1.0 GPA)
Failing to meet basic energy efficiency requirements

JURISDICTION	COMMENTARY	2000 GRADE	1999 GRADE
Yukon	Congratulations Yukon! The most improved and leading jurisdiction in Canada, the Yukon's success is based on their ability to build strong partnerships with builders and contractors. Significant progress has also been made through the initiation of new programs and regulated energy efficiency activities. The Alliance will be monitoring the new government to ensure that it continues to deliver on energy efficiency.	A-	C-
Quebec	A solid performer with the introduction of several new initiatives puts Quebec in the number two spot in Canada. Quebec, through the establishment of the L'Agence de l'efficacite energetique and their own climate change process, is continuing to build partnerships with various organizations to promote energy efficiency.	B+	B-
Federal Government	The Federal government continues to provide solid programs and funding support for energy efficiency. Partnerships with energy market participants need to be strengthened to improve program delivery.	B	B+
New Brunswick	New Brunswick's Provincial Buildings Initiative is the leading public buildings initiative in Canada, with ninety five percent of the provincial buildings participating in the program. Destination Conservation has also been initiated into the PBI, and NB continues to support other organizations in the delivery of energy efficiency related programs.	B-	B
Manitoba	Manitoba is a leader in building standards and recent efforts to revamp, promote and implement the building code improvements are notable.	C+	C+
Northwest Territories	The North West Territories appears to be putting in place the foundations for improved energy efficiency through recommendations on energy recovery, demand control systems, light switching, and minimum thermal resistances which exceed the MNEC recommendations.	C+	C
Ontario	The Ontario government has provided some signs of movement and continues to improve on its <i>Energy Efficiency Act</i> standards work, however there has been nothing yet to indicate a clear response to energy efficiency and electricity competition, or climate change.	C+	C
Alberta	Alberta has improved their approach to climate change and was awarded the top level from the VCR's Champion Reporting. Their efforts have been rewarded with a full grade improvement. Strategies for energy efficiency in a competitive energy market are still not clear.	C	D
Newfoundland & Labrador	Efforts continue at a respectable level, most notably on provincial building upgrades, with an estimated 75 percent penetration. The Department of Health also has its own energy efficiency program, with expected annual savings of \$3.5 million.	C	C+
Nova Scotia	Changes brought about by the new government may jeopardize the performance and monitoring ability of Nova Scotia's energy efficiency buildings program. The establishment of an Interdepartmental Committee to address climate change is a positive step.	C	C+
British Columbia	The British Columbia government is beginning to show renewed interest in energy efficiency, following its history as an energy efficiency leader from a decade ago. Budgets and innovative programs such as reforming the tax system, fuel switching and greenhouse gas emissions trading are under development. Progress in these new initiatives will be monitored.	C-	D-
Price Edward Island	The Prince Edward Island government has focused all of its efforts to allow natural gas on the island. The Alliance is hopeful that the province will return to its energy efficiency activities next year and increase its grade.	D	D
Saskatchewan	Our first failed province. Lack of support for energy efficiency combined with the country's highest reliance on fossil-fuels makes for an unacceptable combination.	F	D-

WHAT GOVERNMENT'S ARE REALLY DOING CONTINUED FROM P.3

Prince Edward Island

www.gov.pe.ca

Over the past year, the province has dedicated much of its efforts to enabling legislation that would support natural gas coming across to the island. As part of its green power procurement strategy, the federal government has also provided funding for the development of the Atlantic Wind Test Site, which could provide PEI with on-site power, thereby reducing their reliance on New Brunswick's power. The province has had no significant changes to their energy efficiency programs, budgets or performance since 1999.

Nova Scotia

www.gov.ns.ca

The Nova Scotia government has recently formed an Interdepartmental Committee to assist with the development of the Cabinet approved climate change strategy for the province. Under the strategy, additional funding has become available for a number of new projects. Public education outreach has been a priority for the province, including a new video, improvements to the website and increased training courses and presentations.

To aid with the development of a comprehensive energy retrofit program for provincial buildings, several Departments within the Nova Scotia government met with representatives of the Alliance and a local energy services company to discuss the barriers that exist in gaining the full benefits in performance contracting investments. Unfortunately, when the government changed last summer and conducted an internal review of all programs, the program has become somewhat stalled, and will now need to wait until the Climate Change strategy materializes. This could significantly reduce the performance incentive of the energy retrofits and delay the possibility of infrastructure renewal for the provinces' facilities.

New Brunswick

www.gov.nb.ca

In 1999, New Brunswick elected a new government that initiated a complete program review. As a result no new energy efficiency initiatives have been considered, however the government announced that a new energy policy would be developed in 2000 which will likely cover the topics of electricity restructuring, availability of natural gas, energy efficiency, renewables, and climate change. The province has awarded a natural gas franchise to Enbridge

Gas New Brunswick in 1999, where the expected conversions will result in overall energy efficiency improvements in the delivery of space heat and operation of appliances. A new gas distributor and marketers in NB will increase the opportunities for energy efficiency program partnerships. The government has played a very active role in the selection of the franchise to ensure that the use of gas is maximized and that it is available as soon as possible.

New Brunswick continues to support building codes through the R-2000 HOME Program and the Model National Energy Codes. Along with other jurisdictions, it participated in the Canadian Consortium for Building Energy Compliance Software, which led to the release of EE4 - a software program that offers advanced solutions for professional designers to measure compliance under the Model National Energy Code for Buildings.

Northwest Territories

www.gov.nt.ca

For close to twenty years, the Government of the Northwest Territories (GNWT) has funded full time positions and programs aimed at improving energy efficiency. In 1999, the government released a new document that identifies several energy efficiency initiatives and recommendations that exceed the Model National Energy Code. In addition, two major studies have been launched aimed at improving energy efficiency: identification of potential cost savings in all GNWT funded operations and facilities, and a greenhouse gas strategy aimed at controlling greenhouse gases. The Arctic Energy Alliance continues to deliver energy management programs and public awareness campaigns.

Yukon

www.gov.yk.ca

The Yukon government has shown a remarkable commitment to energy efficiency over the past several years. The Cabinet Commission on Energy made 56 recommendations to the government on how to reduce energy - all were accepted. Subsequently, the government developed an Energy Implementation Plan in November 1998, which initiated more than ten programs to implement the actions required. Two thirds of the measures relate directly to increasing energy efficiency and reducing greenhouse gases. Of particular interest is the implementation strategy for the 10-year Energy Efficiency Initiative, the Home

Repair Program that provides low-interest loans, the new and improved Commercial Energy Management Program and the Development of an Energy Solutions Centre. The Yukon was our "most improved" jurisdiction and received top marks from the Alliance.

Nunavut

www.gov.nu.ca

On April 1, 1999, Nunavut (formerly the eastern part of the Northwest Territories) was officially named Canada's third territory. Under a new government, Nunavut is focused on stimulating the region's economy and creating both public and private sector jobs. Based on Inuit values and beliefs, the government has established ten different departments, including a Sustainable Development Department that addresses energy efficiency. The Department's primary goal is to provide healthy, sustainable communities in Nunavut. We look forward to monitoring their progress and hope to develop an ongoing relationship with Nunavut. The Alliance will be grading them on their plans and activities next year.

Federal Government

www.oee.nrcan.gc.ca

The federal government continues to be a leader in energy efficiency. Energy efficiency is supported by a number of organizations including the Office of Energy Efficiency (OEE), CANMET, the Office of Energy Research and Development, Revenue Canada, Environment Canada and the Climate Change Secretariat. The federal budget has provided significant funding for municipal building retrofits, energy efficiency and renewable energy programs and encouragement for investments in municipal green infrastructures.

The OEE works in consultation with stakeholders, however an important area for improvement in federal programs is in increased partnership-building on program delivery and marketing - the R-2000 HOME Program in Ontario being a notable exception.

The federal government provides progress reports for most of their activities in its Report to Parliament under the *Energy Efficiency Act* and have made significant progress in providing support to industry to make the required reductions in greenhouse gases.

Each province, territory and the federal government were judged on the following categories in the 1st Annual Report Card:

1. Building codes
2. Energy Efficiency Act
3. Regulated DSM (i.e. Energy Board)
4. Business Plan (or specific energy efficiency priorities outlined in the annual report)
5. Internal energy efficiency activities (i.e. Federal Building Initiative)
6. Energy efficiency programs
7. Public information and education
8. Trend analysis (based on budgets, number of staff and number of programs in 1990, 1995 and 1999)
9. Other observations (i.e. accessibility of information, departmental stability, innovative programs and energy savings data, other factors)

The Alliance was particularly interested in accomplishments and progress in energy efficiency during this past year. Additional criteria for the 2nd Annual Report, included:

10. Government availability for public to access information
11. Reporting to the Voluntary Challenge and Registry (VCR) - Action Plans, Annual Reports and Champion Level Reporting
12. Miscellaneous initiatives of governments not captured in our criteria
13. Programs initiated this year
14. Performance/success of programs offered
15. Amendments to Building Codes or Energy Efficiency Act
16. Budgets for energy efficiency activities in 1999

Grades were assigned to each category and combined to arrive at the overall grade. Grades were assigned according to the standard grading system presented in the adjacent table.

Similar to last year, information was requested from all government representatives mandated with energy efficiency. This year, a total of 35 individuals were contacted to provide the necessary information. The review included correspondence with staff in all jurisdictions, either via email or by telephone conversations. Information was also collected from government websites. Generally information was provided according to the criteria, although the Alliance still had some difficulties tracking and collecting information from many jurisdictions.

THE GRADING SYSTEM		
Grade	Point	Comment
A	4.0	Exceeding expectations
B	3.0	Progressing well in most areas
C	2.0	Meeting basic expectations but room for improvement
D	1.0	Needs improvement
F	<1.0	Failing to meet basic energy efficiency requirements

CRITERIA FOR YEAR THREE

Year three will see a streamlining of the criteria over previous years. The Alliance will be paying close attention to:

- Commitments to the National Implementation Strategy
- Policy developments in electricity restructuring, including market transformation initiatives
- Progress reports to the VCR Inc., which identify GHG emissions
- Consideration of crown corporations and public utilities
- Performance of new programs initiated
- Budgets allocated to energy efficiency
- Amendments to provincial/territorial building codes and energy efficiency acts

VCR Inc.

(Continued) Only three governments produced Progress Report's in 1999;

Only two provinces have met the "Champion Level" reporting requirements (Alberta has Gold status and Government of Canada has Silver status); and,

British Columbia, Manitoba, Prince Edward Island have submitted nothing more than Letters of Intent to participate, which dates as far back as 1995.

For more information visit www.vcr-mvr.ca

National Implementation Strategy

(continued) and benefits of addressing climate change. The National Climate Change process may be the most comprehensive assessment on how to respond to the climate change problem of perhaps any country in the world.

The Alliance will be monitoring Canada's efforts with expectations of great improvements in energy efficiency activities, including information campaigns, new regulations, fiscal measures and an increased investment in organizations delivering energy efficiency.

For more information visit www.nccp.ca

THE ROLE OF UTILITIES

Public and private utilities play a central role in supporting and delivering energy efficiency in Canada. This year's report card makes no effort to identify and incorporate into the criteria the activities of the utilities across Canada. Rather, the Alliance has focused its efforts on the direct responsibilities of governments to ensure that energy efficiency is incorporated and supported by all sectors through education and information, standards and codes, regulations, public/private sector partnerships, and supportive infrastructure.

OUR MEMBERS

Enbridge Consumers Gas
 Ontario Power Generation Inc.
 Owens-Corning Canada
 Toronto Hydro
 Union Gas
 Municipal Electric Association (MEA)
 Awad & Singer
 BC Gas
 BC Hydro
 BESTo Group
 Building & Construction Trades Council
 Cowan Quality Buildings
 Dow Chemical Canada Inc.
 DuPont Canada
 Green Communities Association
 Independent Power Producers' Society of Ontario (IPPSO)
 Johns Manville Canada Inc.
 Lio & Associates
 National Energy Conservation Association (NECA)
 Osram Sylvania Ltd.
 Power Source
 Seneca College
 Texeira Construction Inc.
 Toronto Atmospheric Fund
 University of Toronto
 Consumers' Association of Canada
 Pollution Probe
 Sierra Club of Canada

ABOUT US

The Canadian Energy Efficiency Alliance is a broadly based not-for-profit organization. It is the leading non-government, energy efficiency advocate in Canada. The Alliance was established in 1995 to respond to the lack of a coordinated multi-stakeholder effort to promote energy efficiency in Canada, in order to enhance competitiveness and protect the environment.

The Alliance works in partnership with manufacturers, utilities, governments, builders, labour, consumer groups and environmental organizations to facilitate the adoption of energy efficiency measures in Canada. The Alliance is supported through fees and project contributions from our members.

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Thank You

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CANADIAN

Energy Efficiency Alliance