

2002/03

SUSTAINABLE DEVELOPMENT REPORT

MESSAGE FROM THE PRESIDENT

“...the ‘environment’ is where we all live; and ‘development’ is what we all do in attempting to improve our lot within that abode.”

-Gro Harlem Brundtland, World Commission on Environment and Development, 1987

This was an historic year for Manitoba Hydro – a year in which we achieved significant progress in our continuing process of sustainable development.

During the year we acquired Winnipeg Hydro, the only other electric utility in Manitoba. This acquisition will create new financial synergies, add two generating plants to our system, and extend our Power Smart and other services to the 94,000 customers previously serviced by the City of Winnipeg utility.

We also completed the conversion of the Selkirk thermal generating station, which previously burned coal, to gas, and brought two new gas combustion turbines into service at our Brandon station. Gas provides important environmental advantages over coal, including major reductions in greenhouse gases and other air emissions.

The benefits of these milestones will become more evident in the years to come.

This edition of our Sustainable Development Report contains measures based on our sustainable development principles and our strategic goals that gauge our operational progress on a year-to-year basis. Our positive results are possible only through the commitment of all our employees and our Board, and I would like to thank them for their efforts and congratulate them on our mutual success.

R.B. Brennan, FCA

President and Chief Executive Officer



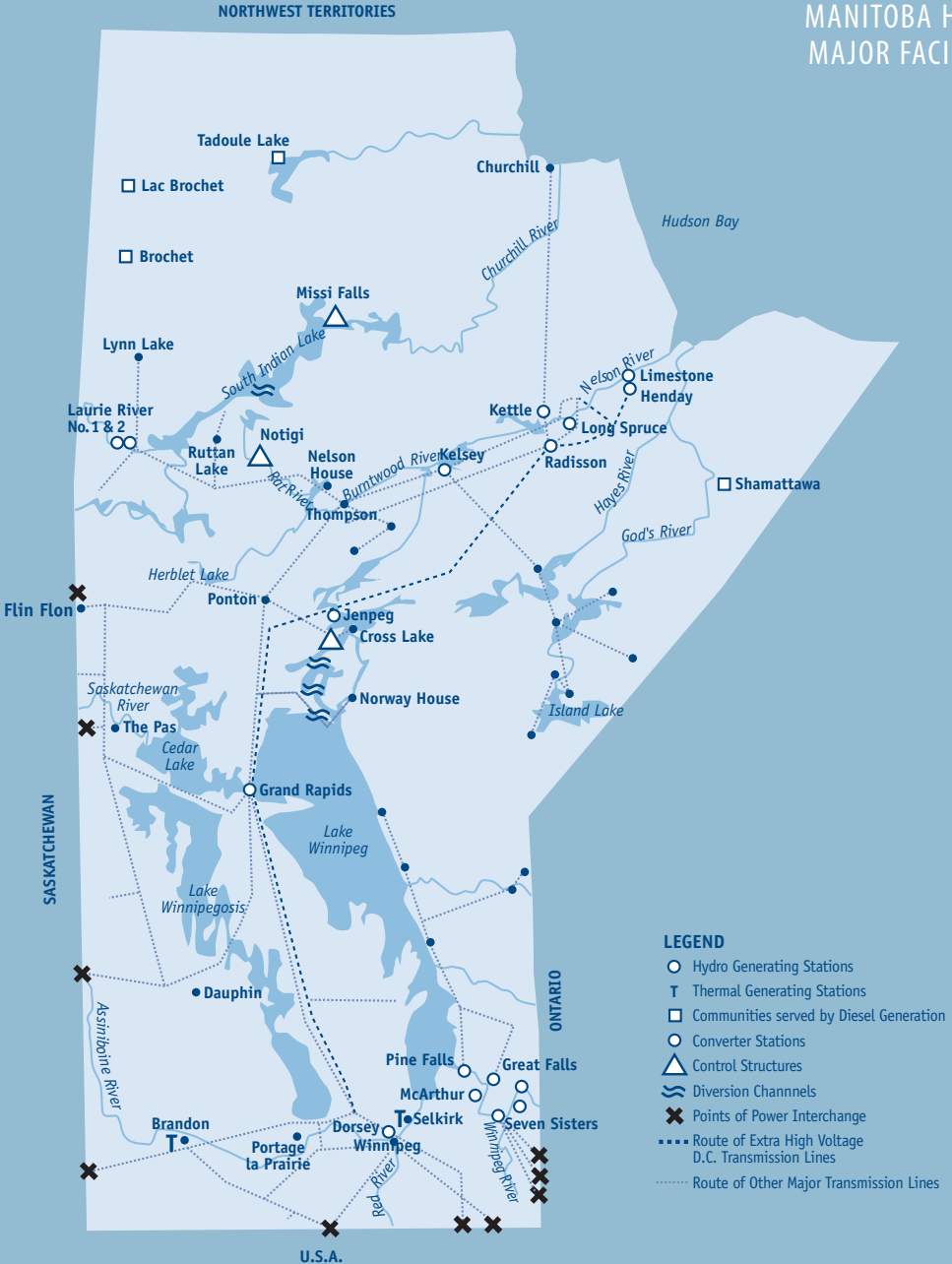
MANITOBA HYDRO

Manitoba Hydro is a provincial Crown Corporation providing electric energy to approximately 502,000 customers through Manitoba and natural gas service to approximately 251,000 customers in various communities throughout southern Manitoba.

We also export electricity to over 50 electric utilities and marketers in the mid-western United States, Ontario and Saskatchewan. The Corporation has consistently been one of the top three exporting electric utilities in Canada, with exports accounting for approximately 30 per cent of kilowatt-hours sold. Nearly all of our electricity is generated from self-renewing waterpower. On average, about 30 billion kilowatt-hours are generated annually, with 98 percent produced from 14 hydroelectric generating stations on the Nelson, Winnipeg, Saskatchewan and Laurie Rivers. The remaining 2% is produced at two thermal generating stations and four remote diesel generating stations.

The governance of the Corporation is through the Manitoba Hydro-Electric Board, whose members are appointed by the Lieutenant Governor in Council.

MANITOBA HYDRO MAJOR FACILITIES



SOUTHERN MANITOBA; AREAS SERVED BY NATURAL GAS

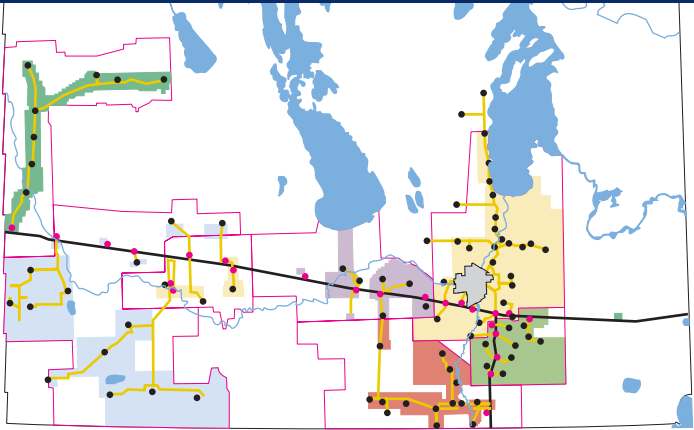


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The Sustainable Development Report is one of a series of reports and publications that Manitoba Hydro publishes on a regular basis to provide information about our company's activities and performance.

The Sustainable Development Report places an emphasis on a number of factors that measure our performance in the three areas that as a whole constitute sustainable development: the economy, the environment, and society (which in this report we call "the community"). Each of these "pillars" of sustainable development is addressed in a chapter of this report: 1. Energy and the Economy, 2. Energy and the Environment, and 3. Energy and the Community. Each chapter begins with highlights from the year, and it then follows with information on the subjects that constitute our measurements of sustainable development.

This report draws heavily from several sources. Manitoba Hydro's Annual Report, Manitoba Hydro's Strategic Plan, Manitoba Hydro's VCR Report, and the Canadian Electricity Association's Environmental Commitment and Responsibility Report. All are on the internet. For the Manitoba Hydro reports, please go to www.hydro.mb.ca, and for the Canadian Electricity Association, www.canelect.ca. This report summarizes, and in some cases updates, pertinent information from these and other sources so that readers are able to gauge our progress toward a sustainable energy future.

Readers should be alerted to the time frames in which data are collected. The Canadian Electricity Association collects data on a calendar year, while data used solely for Manitoba Hydro records are collected on the basis of the fiscal year (April 1, 2002 – March 31, 2003).



ENERGY AND THE ECONOMY

Among the dignitaries on hand for the official commissioning of the Selkirk gas conversion project were: Bob Brennan, president and CEO of Manitoba Hydro; Hon. Greg Selinger, Minister responsible for Manitoba Hydro; and the Hon. Gary Doer, Premier of Manitoba.

Manitoba Hydro took another major step forward in providing energy services to all Manitobans in 2002/03, with the acquisition of the only other electric utility in the province. On September 3, 2002, ownership of Winnipeg Hydro transferred from the City of Winnipeg to Manitoba Hydro. It is the beginning of a new era for all generation, transmission, and distribution of electricity throughout all of Manitoba by a single Crown utility.

Manitoba Hydro will be able to deliver its energy services to all of its customers more efficiently, while coordinating and streamlining its programs, services and systems. Former Winnipeg Hydro customers will also be able to access Manitoba Hydro's Power Smart Program and many other Manitoba Hydro services.

The acquisition includes two hydroelectric generating stations on the Winnipeg River, and the infrastructure to serve 94,000 customers, and over 500 employees transferred to Manitoba Hydro. The City of Winnipeg will receive \$25 million per year for five years, \$20 million for an additional four years, and thereafter \$16 million per year in perpetuity. Manitoba Hydro has also agreed to develop a new downtown headquarters. The world-class, energy efficient, "green" structure is expected to be completed by 2006.

The following are other energy and economy highlights from 2002/03:

- A new 260 megawatt natural gas combustion plant was officially opened in Brandon.
- The coal-fired Selkirk Generating Station was successfully converted to natural gas.
- A new international interconnection completed between Glenboro, Manitoba, and Harvey, North Dakota, improved import and export capabilities, strengthening energy reliability to the region.
- Seven Manitoba sites are being monitored as part of a wind power generation study launched this year.
- Manitoba homeowners and the heating, ventilation and air conditioning industry received assistance from a new Power Smart program that focuses on geothermal heat pump systems.
- On February 24, 2003, peak demand for electricity reached 3,916 megawatts, and on January 22, 2003, the peak demand for natural gas reached 556,710 gigajoules – both historic highs.

More information on these and other Manitoba Hydro initiatives is available on our website and in other publications, such as our annual report. You can visit our website at www.hydro.mb.ca or contact Manitoba Hydro Public Affairs at (204) 474-3311.



Manitoba Families using geothermal pumps are finding their homes comfortable and less expensive to operate

ENERGY EXPORTS

Significant revenues despite drought conditions

GOAL:

- Maximize Export Power Net Revenues

TARGETS:

- Net exports as a percent of total electric revenue: 26% by 2006/07
- 40% by March 2012

The sale of electricity to customers outside Manitoba is essential to Manitoba Hydro's long term growth. These exports continue to provide the corporation with flexibility and financial stability.

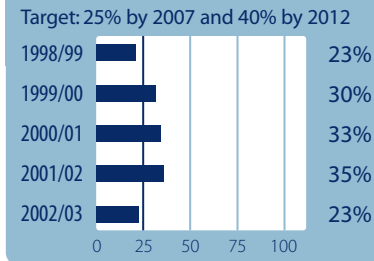
In 2002/03, drought conditions on our main Churchill-Nelson river system reduced our production to 29.2 gigawatts of electricity, our lowest level in eight years. At the same time our Manitoba customers consumed more energy than usual because of a cold winter

Even with the lower generation, by effectively and efficiently coordinating the available water supplies with periods of greater energy demand, we were able to realize 9.7 gigawatts in export sales. Gross export revenue (net of fuel and import energy costs) was \$0.3 billion. With total electricity revenues of \$1.3 billion, net export revenues represented 23% of total electricity revenue.

During the year, the National Energy Board gave final approval to a 10-year contract between Manitoba Hydro and Minneapolis-based Northern States Power, a subsidiary of Xcel Energy, for 500 megawatts of electricity annually starting in 2005. This follows a similar decision by the Minnesota Public Utilities Commission.



Net Exports as a Percent of Total Electric Revenue



New Gas Turbines at Brandon add 260 megawatts of capacity to the Manitoba Hydro system

FINANCIAL STRENGTH

A solid financial footing

GOAL:

- Improve corporate financial strength

TARGETS:

- Interest coverage ratio: >1.10
- Debt/Equityratio: 75% by the year 2011/12
- Capital coverage ratio: >1.0
- OM & A cost per electric customer: <\$600
- OM & A cost per gas customer: <\$175

Manitoba Hydro has three primary financial targets: to enhance its financial strength, to contribute to rate stability and predictability, and to protect the Corporation and its customers from a variety of other risks.

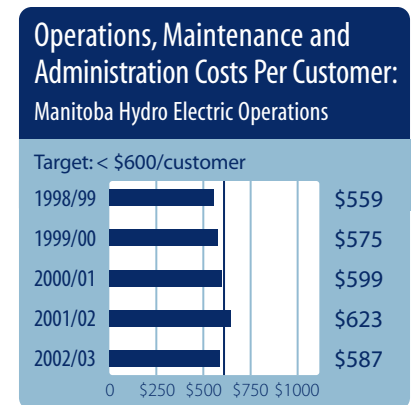
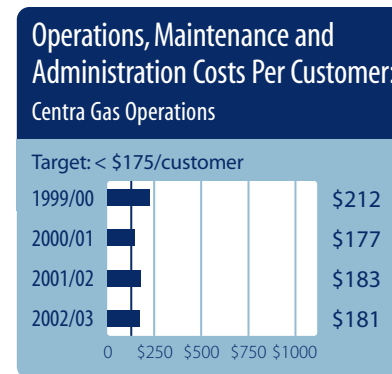
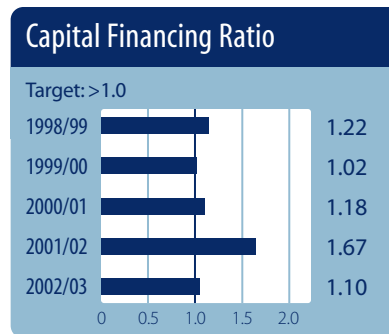
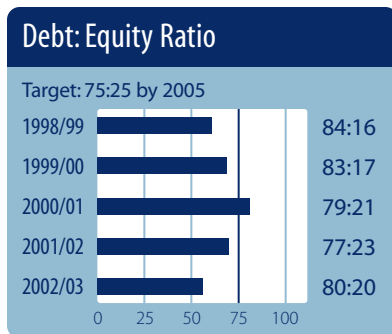
During 2002/03 the interest coverage ratio fell from 142% to 114%, still within the target of 110%. The interest coverage ratio indicates the extent to which our net income is sufficient to pay gross interest on our debt. The decline in the ratio from the previous year is primarily the result of decreased net income because of reduced export sales, as well as increases in fuel and power purchases and in

depreciation expenses. The depreciation expense increased because of the purchase of Winnipeg Hydro's generation and distribution assets, capital additions and changes to depreciation rates.

The capital coverage ratio also dropped to 110% from 167% the previous year, and still met the target of 100%. The capital financing ratio indicates the extent to which our operating activities are able to fund capital construction expenditures. Our target is to fund all capital construction requirements (except for major new generation and transmission projects) from internal sources. The decrease in the ratio during 2002/03 was caused by a reduction in export revenues and a slight increase in capital spending.

The debt:equity ratio also increased in 2002/03, from 77% to 80%, as the corporation's equity declined by \$131 million.

Along with working to maximize export revenues, Manitoba Hydro also strives to control operating, maintenance and administrative expenses. Our acquisition and resultant integration of Winnipeg Hydro operations helped to reduce expenses to \$587 per electricity customer, below our target of \$600. Similarly, these costs dropped for our gas customers, although they are slightly above our target of \$175.



RATES AND RELIABILITY

Electricity rates continue to be lowest on continent

GOAL:

- Provide Customers with Exceptional Value

TARGETS:

- Lowest electricity rates in North America
- Among the lowest gas rates in North America
- Average electric customer outage time: 92 minutes cumulative average (2000-04)
- Average electric customer outage frequency: 1.3 per year cumulative average (2000-04)
- Gas market share of distribution customers: 100%
- Gas market share of commodity sales: 60% by 2005

Manitoba Hydro is proud of its exceptional record on the critical issues of value, reliability, and power quality.

Our electricity rates are the lowest of any major utility in North America and among the lowest in the world. Our gas rates are competitive with other major Canadian distributors.

At the same time we continue to target improvements in the number and length of outages to our customers.

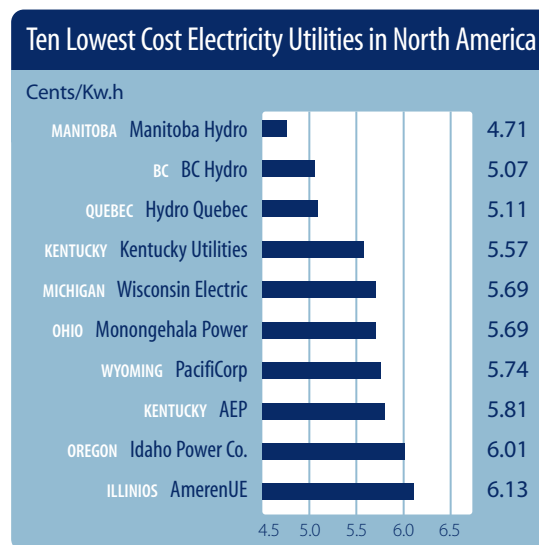
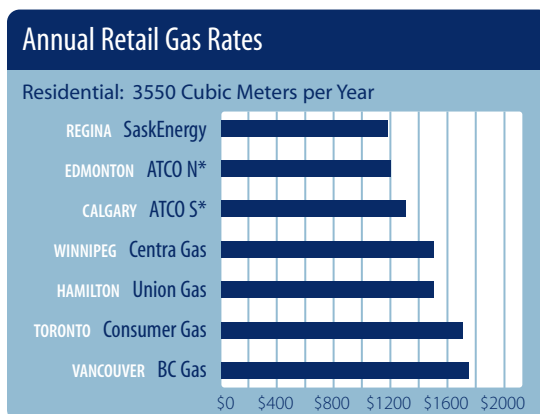
Manitoba Hydro’s residential rates have not risen since 1997, and rates for large industrial customers have remained unchanged since 1992. During that time, some

customers have actually had their rates decreased with the introduction of uniform rates which were legislated in 2001.

During 2002/03 Centra Gas’ prices were adjusted four times to reflect the forecasted market cost of primary gas supplies. While Centra Gas moved from fourth to sixth for the lowest residential rates among Canadian cities, that ranking is expected to improve as at least two utilities that adjust rates annually update their rates for 2003/04.

Centra Gas’ share of distribution customers dropped slightly during 2002/03. Of 600 new gas customers in Manitoba during that period, 125 were members of the new Gladstone Austin Natural Gas Co-op. However, our share of the total volume market increased to 59%, mostly the result of customers returning to Centra Gas as their broker contracts expire.

This year customers experienced an average of 1.71 outages, and the average outage duration was 112 minutes as wind, rain and lightning storms were more severe than usual between June and September. One June thunderstorm dropped 250 millimetres of rain in some areas and, coupled with high winds, downed hydro poles and snapped trees onto conductors. Crews from around the province were called in to the restore power that, in some cases, took several days.



ENERGY CONSERVATION

CANADIAN ELECTRICITY ASSOCIATION PRINCIPLE

- To be more efficient in our use of resources

CORPORATE TARGETS

- Cumulative demand side savings of 356 MW by 2011/12
- Cumulative demand side savings of 1,272 GWh by 2011/12
- Cumulative supply side savings of 350 megawatts by 2013/14

Manitoba Hydro continues to be an energy conservation leader among North American utilities.

Energy conservation, marketed through our Power Smart programs, is an integral component of Manitoba Hydro's overall strategy, supporting efforts to provide customers with exceptional value, while meeting the energy needs of the province and being proactive in protecting the environment.

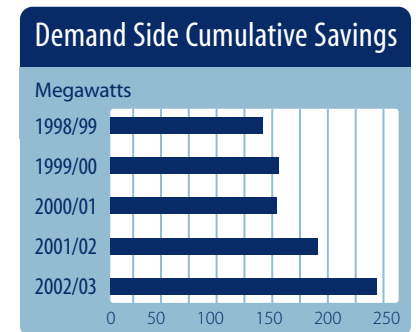
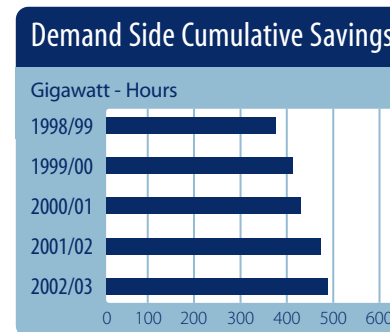
In 2002/03, our programs reduced our customers' energy requirements by 108 gigawatt hours, bringing the total since Power Smart was launched in 1991 to 596. At the same time, Power Smart programs in 2002/03 reduced our capacity requirements by 16, and the total for the past decade to 120 megawatts. Our Curtailable Rates Program has contributed another 121 megawatts. We also began re-running a turbine at Great Falls which, when completed in the following year, will add 3 megawatts to our system. Since 1990, these types of supply side improvements have totalled 55 megawatts.

Several initiatives indicate our customers' interest in reducing their energy use. Over 1,500 people registered for 24 Consumer Energy Saver/New Home Workshops around the province – five times more than originally anticipated. Over 500 senior citizens invited trained university students into their homes to identify low-cost opportunities to reduce their energy bills. Nine thousand customers have now received \$29 million in loans under the Home Comfort and Energy Saving Program, now in its second year, to improve the energy efficiency of their homes. In a survey of customers participating in the Power Smart Residential Loans Program, respondents indicated an overall satisfaction level of 8.7 on a 10 point scale.

Eight industrial customers, with a combined \$28 million in energy costs and 0.475 megatonnes of annual greenhouse gas emissions, signed up for the new Power Smart Eco-Efficiency Solutions Program. The program examines five key environmental aspects: energy, water, wastewater, greenhouse gas emissions, and solid wastes.



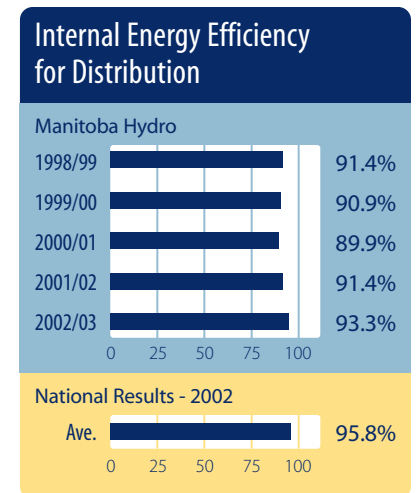
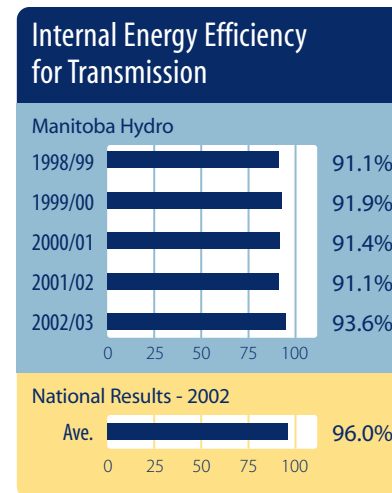
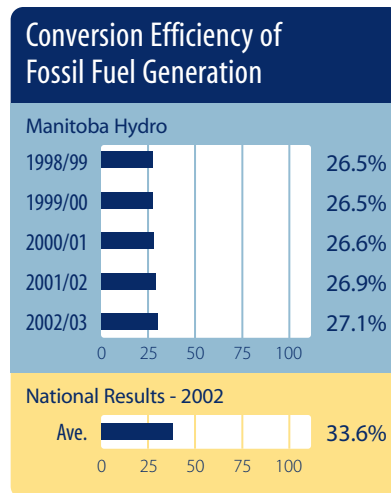
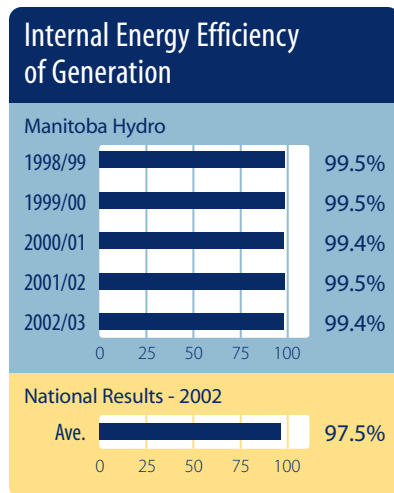
Griffin Steel is one of Manitoba Hydro's major industrial customers using the new Power Smart Eco-Efficiency Solutions Program to manage five key environmental factors, including energy requirements.

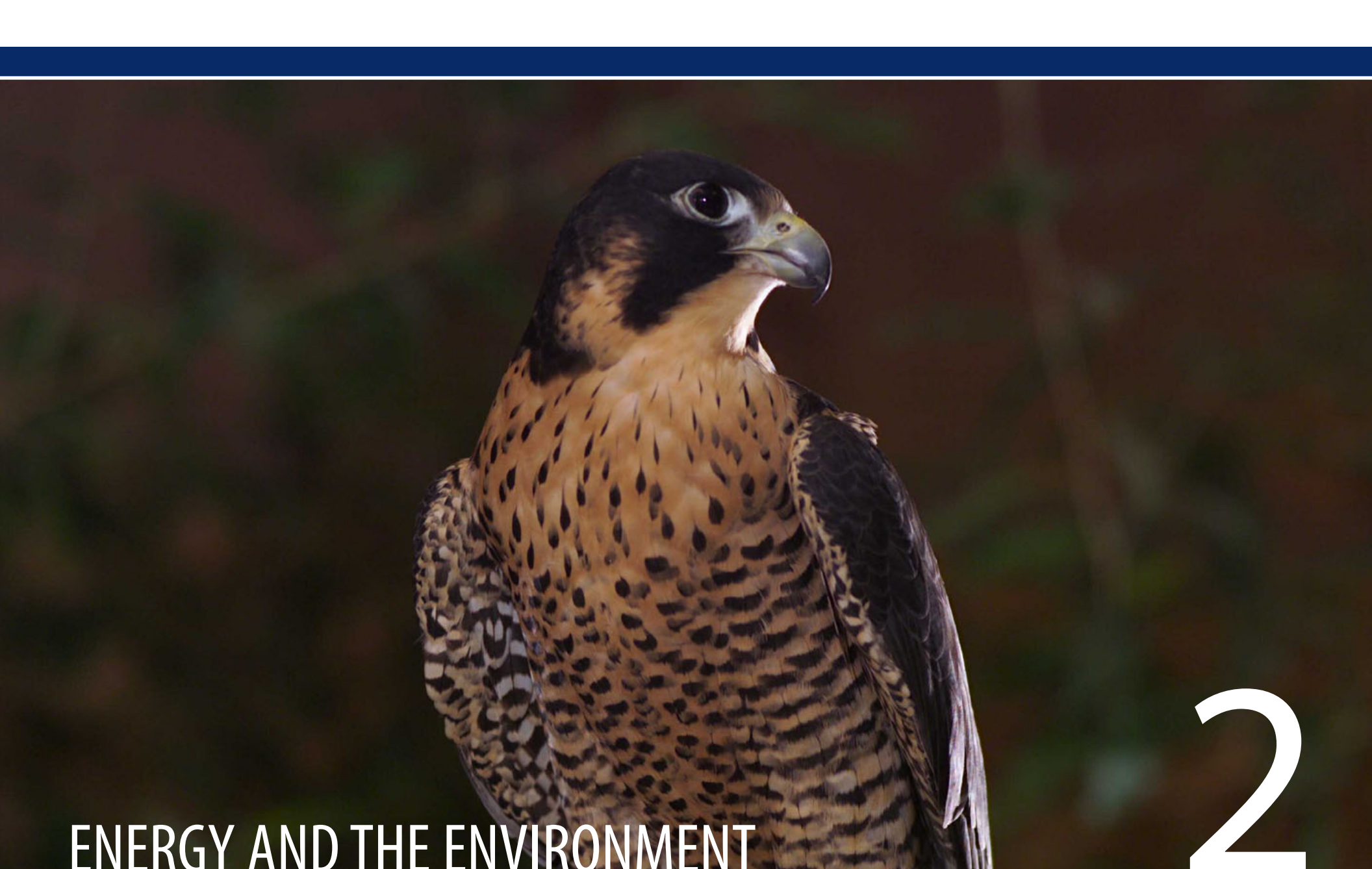


A program was launched in 2002/03 to increase awareness and provide financing for homeowners installing geothermal heating and cooling systems. Working with industry and the public, Manitoba Hydro contributed to this province's first place ranking for the highest number per capita of geothermal installations in Canada. Approximately 30 percent of all geothermal units installed during the year in Canada were in Manitoba.

The Canadian Electricity Association records the efficiency (that is, the percentage of electricity that leaves the generation station after internal needs are met) of the national generation system. Manitoba Hydro's generation system is one of the most efficient in the country, measuring at 99.4% in 2002. Because of our reliance on

clean hydroelectric power, our system designs its fossil fuel generation plants to operate less continuously than do many other systems that rely on fossil fuel plants for their base load. As a result, our fossil fuel plants are less efficient at converting fossil fuel energy into electrical energy, measuring at 27.1% in 2002. Our transmission and distribution systems are normally slightly less efficient than the national average, at 93.6% and 93.3% in 2002. "Losses" in the transmission and distribution system are a factor of distance, wire size, and the age of the equipment. Manitoba Hydro significantly improves the efficiency of our system by transmitting much of the power from our northern generating stations to our southern markets (a distance of 900 kilometers) via direct current rather than conventional alternating current.





ENERGY AND THE ENVIRONMENT

2

Manitoba Hydro assisted with the installation of a 12 meter tower for the Peregrine Falcon Breeding Program

Nisichawayasihk Cree Nation and Manitoba Hydro are continuing with environmental studies and public consultations on the proposed Wuskwatim Generating Station. The studies and consultations are important steps leading up to the completion of the environmental impact statement, public hearings and regulatory decisions, expected to occur in the next year or so.

Before the public hearings are held, an environmental impact statement will be completed and released to the public. The environmental impact statement will include the results of scientific and socio-economic studies that began in 2000. Two more cycles of consultation are also planned, bringing to five the number of rounds of consultation undertaken for this project.

Nisichawayasihk Cree Nation and Manitoba Hydro are planning to create a partnership to develop the 200 megawatt hydroelectric generating station on the Burntwood River in the Nelson House Resource Management Area. The two potential partners have already selected a low-impact design that will flood less than one-half square kilometers.

Manitoba Hydro and four Cree Nations (Tataskweyak, War Lake, York Factory and Fox Lake) also continued work on the proposed Gull/Keeyask Project. They could begin the formal regulatory process as early as 2005.

Once the Wuskwatim project is licensed by federal and provincial environmental authorities, it will require six years to construct.

The following are more environmental highlights from 2002/03:

- The British Standards Institute registered Manitoba Hydro's environmental management system to the international standard for environmental management systems.
- A national organization that recognizes corporate commitment to managing greenhouse gas emissions, the Voluntary Challenge and Registry, presented its Leadership Award to Manitoba Hydro.
- Manitoba Hydro became a founding member of the Chicago Climate Exchange, a group of North American businesses participating in a pilot program to reduce greenhouse gas emissions among participants.
- Raptors nesting on Manitoba Hydro facilities that could endanger themselves and our equipment. When these situations are spotted special platforms are installed for the protection of both. Most recently, the corporation assisted the Peregrine Falcon Breeding Program with construction of a 12-meter tower platform to aid the controlled release phase of the falconers' project.



The Wuskwatim environmental impact statement will include extensive information about the biophysical and socio-economic environment, including training and employment opportunities for Aboriginal people in northern Manitoba.

More information on these and other Manitoba Hydro initiatives is available on our website and in other publications, such as our annual report. You can visit our website at www.hydro.mb.ca or contact Manitoba Hydro Public Affairs at (204) 474-3311.

LAKE WINNIPEG OPERATING LICENCE

Grand Rapids reduces impact of low flows into Cedar Lake

Manitoba Hydro is authorized under a Water Power Act licence to regulate the outflow from Lake Winnipeg, as follows:

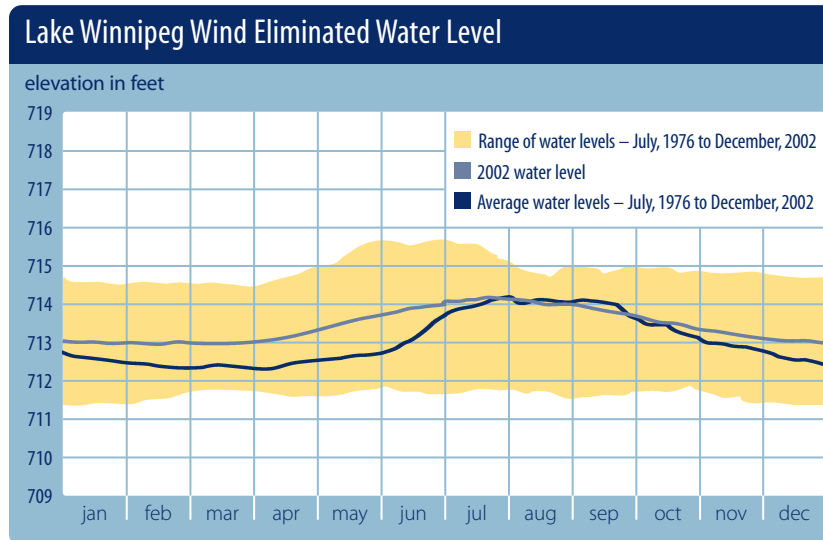
- When the lake is between 711 feet and 715 feet above sea level (wind eliminated), outflows from the lake are regulated as required for power production purposes.
- When the lake is above 715 feet, the lake is regulated to maximize the discharge.
- When the lake is below 711 feet, the Province of Manitoba directs Manitoba Hydro's operation of the Jenpeg control structure.

Reservoirs are essential for operating hydroelectric systems. Three lakes serve as the largest reservoirs in the Manitoba Hydro system. They are Cedar Lake, Southern Indian Lake, and Lake Winnipeg. The Grand Rapids Generating Station on the Saskatchewan River regulates Cedar Lake outflow, and the Notigi Control Structure on the Burntwood River along with the Missi Control Structure on the Churchill River regulate Southern Indian Lake outflow. Outflows from Lake Winnipeg passing through the west channel of the Nelson River are regulated by the Jenpeg Generating Station and Control Structure. Outflows from Lake Winnipeg passing through the east channel of the Nelson River are unregulated.

Throughout 2002 the Saskatchewan River drainage basin experienced below average hydrologic conditions. In the winter months, flows in the Saskatchewan River neared record lows. Annual precipitation was 50% of average over most of the southern prairies. By reducing Grand Rapids outflows for most of the year, water levels on Cedar Lake remained stable to the end of the year.

Southern Indian Lake experienced normal water level conditions. Near normal annual precipitation resulted in average flows on the upper Churchill River. Diversion flows from Notigi Control Structure were close to average all year. Operations at Missi Falls were average all year.

Below average water levels were experienced on Lake Winnipeg to start the year. An extreme rainfall event and runoff in early June resulted in high inflows in early summer. As a result, water levels on the lake rose to average and remained there throughout the summer and early autumn. Outflows from the lake were average through most of the year. As inflows returned to below normal late in the year the water level dropped to below average.



ASH AND OIL

More ash utilized than produced during year

CANADIAN ELECTRICITY ASSOCIATION PRINCIPLE

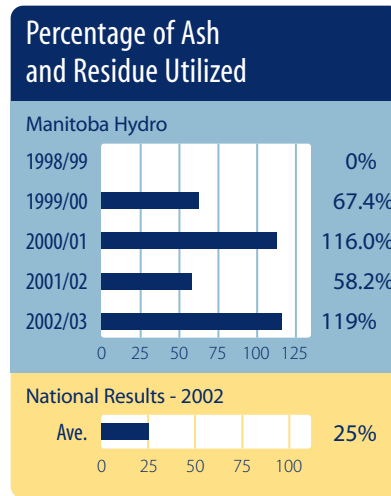
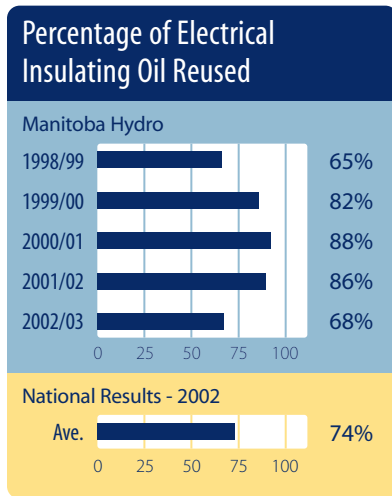
- To be more efficient in the use of our resources

Ash and other solid by-products are produced when coal is burned at thermal generating stations. Until a few years ago, all ash produced at Manitoba Hydro's thermal stations at Brandon and Selkirk was stored in specially-constructed lagoons. But following environmental testing and regulatory approval in 1998, the Brandon ash can now be used for certain designated purposes such as backfill for road bases and landfill cover.

While ash re-use varies from year to year, 2002 contractors in the Brandon area were able to use 10,500 tonnes of ash, more than the 8,800 tonnes that was actually produced at the generating station. The difference was made up with ash that was previously stored in the lagoons.

Meanwhile, with the conversion from coal to gas as a fuel in 2002, the Selkirk thermal generating station is no longer producing ash. The existing ash lagoons are being decommissioned.

Several kinds of electrical equipment use oil as an insulant and coolant. During equipment maintenance, the oil may be removed, and then it is cleaned and returned to the equipment or it is replaced with new oil. Oil that is not re-used may be sold to other companies. Some of these customers then recycle the oil, increasing the total amount of insulation oil recycled across Canada close to 90%. Other companies burn the oil for heat.



EQUIPMENT CONTAINING PCBs

PCBs systematically removed from equipment

CANADIAN ELECTRICITY ASSOCIATION PRINCIPLE

- To reduce the environmental impacts of our business

PCBs were once used in electrical equipment because of their cooling, insulating and non-flammable properties. As a result of concerns over human health and the environment, the manufacture and sale of PCBs was discontinued in 1977.

Until now, PCBs at Manitoba Hydro have been managed on cradle-to-grave basis in an environmentally responsible way. Our “due diligence” approach includes but is not limited to;

- identification of PCBs in electrical apparatus,
- removal of all PCB contaminated equipment from sensitive locations,
- retro-filling low level contaminated apparatus with non-PCB oil,
- decontamination and recycling of PCB contaminated insulating oil and apparatus,
- restricting access to qualified staff in areas where PCBs are present,
- providing containment devices for all oil filled apparatus wherever possible and,
- phasing out equipment containing PCBs before the end of its useful life.

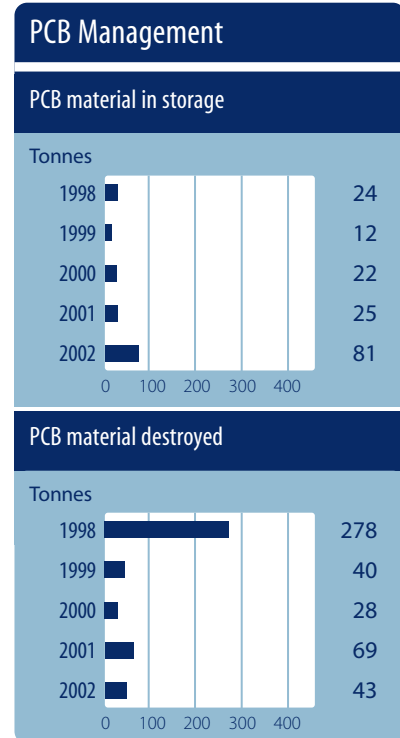
Manitoba Hydro has been removing PCBs from its system for more than 20 years, beginning with the acquisition of PCBX equipment which is used to remove and destroy PCBs in electrical insulating oil. In 2002, more than 1.1 million litres of contaminated oil were processed and recycled using this technology.

Most of the equipment known to contain high concentrations of PCBs is located entirely on Manitoba Hydro property in three fully secure facilities (fenced and security guard) that are staffed 24 hours per day, 365 days of the year. Manitoba Hydro also conducts regular visual inspection and monitoring of this equipment

to identify potential problems before they occur. There is absorbent material installed beneath the equipment to contain any leakage or spilled oil. Each site has an appropriately equipped emergency response team, made up of permanent site staff who are fully trained in the management and handling of PCBs as well as other Hazardous Materials.

When equipment containing PCBs is removed from the system, or when a site remediation project generates PCB contaminated material, it is taken to a registered and licensed Manitoba Hydro storage facility and then shipped periodically to an approved facility for recycling or destruction.

In 2002, three major site remediation projects were undertaken by Manitoba Hydro resulting in the removal of 50 tonnes of contaminated soil and concrete. This material was placed in storage at our Waverley Service Centre, a licensed PCB storage facility. As well, 66 tonnes of electrical equipment containing low level PCBs were removed from service and replaced with PCB free equipment.



ACCIDENTAL SPILLS

CANADIAN ELECTRICITY ASSOCIATION PRINCIPLE

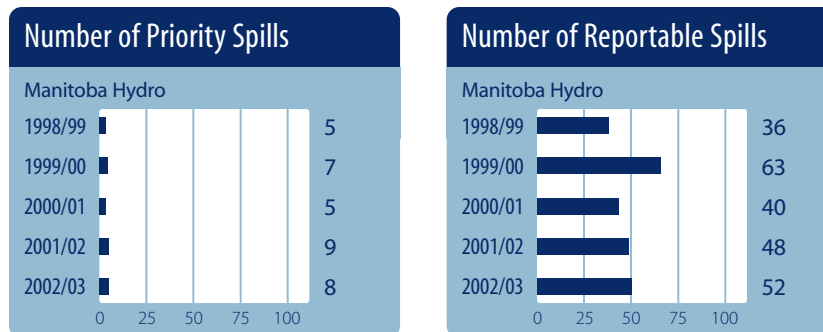
- To reduce the environmental impacts of our business

The total number of reportable and priority spills remained within the five-year historic range in 2002, at 52 and 8 respectively. In all cases protocols were followed to clean up areas affected by the spills.

Reportable spills are those that must be reported to regulatory officials; that is, they exceed 68 litres of insulating oil or other petroleum materials, 45 parts per million of PCBs, 10 or more kilograms of ozone depleting substances, or more than 5 litres of waste oil.

Priority spills are those that involve petroleum products or PCB contaminated substances in which the spill volume is greater than 500 litres, the spilled substance enters a water body, or news media report the event.

Spills containment systems are being systematically installed at our facilities. At the Dorsey converter station, an oil containment system with berms, ditches and oil traps is being constructed to contain spilled oil in any surface water. In addition to its environmental benefits, the system will provide protection against fire.



GREENHOUSE GASES AND OTHER AIR EMISSIONS

CANADIAN ELECTRICITY ASSOCIATION PRINCIPLE

- To reduce the environmental impact of our business

CORPORATE GOAL

- Be proactive in protecting the environment and be a recognized leader in doing so

CORPORATE TARGET

- To reduce our greenhouse gas emissions between 1990 and 2012 by a cumulative average of 6% below 1990 levels (<494 megatonnes for electric operations)

Manitoba Hydro took two major strides toward reducing greenhouse gases emissions in 2002. The Selkirk thermal generating station was converted from coal to gas, a fuel source that produces over 40% less greenhouse gases; and Manitoba Hydro became a founding member of the Chicago Climate Exchange, a North American voluntary pilot program in greenhouse gas emission trading.

For the first time since the Canadian Electricity Association began its Environmental Commitment and Responsibility Program, our thermal generating stations emitted fewer carbon dioxide emissions per kilowatt of generation than the national average, and nitrogen oxide emissions were near the national average. As usual, Manitoba Hydro's thermal stations performed much better than the national average on sulphur dioxide emissions. When our hydroelectric production is also taken in account, our total system greatly outperforms the national average for all air emissions.

Part of the improved performance at our thermal stations can be credited to the conversion from coal to gas at the Selkirk station. But during part of the year, energy production at the Selkirk station and two new gas turbines in Brandon was limited while they were being commissioned, a testing process which requires relatively frequent start-ups and shut-downs. Because production at our hydraulic stations was diminished due to drought, our remaining coal-burning thermal station was operated much more than usual. The continuous operation reduces emissions per unit of energy, but does result in greater total emissions.

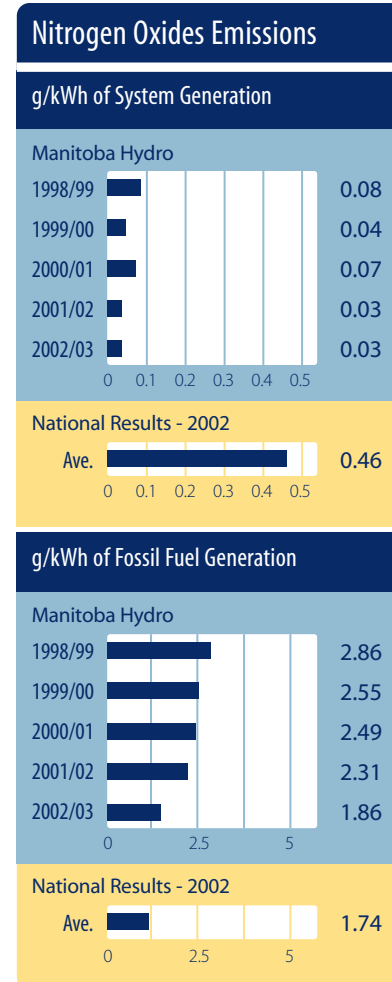
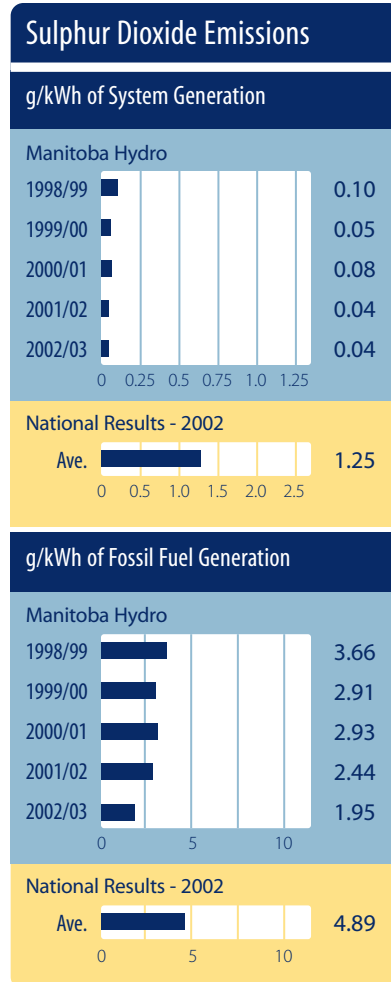
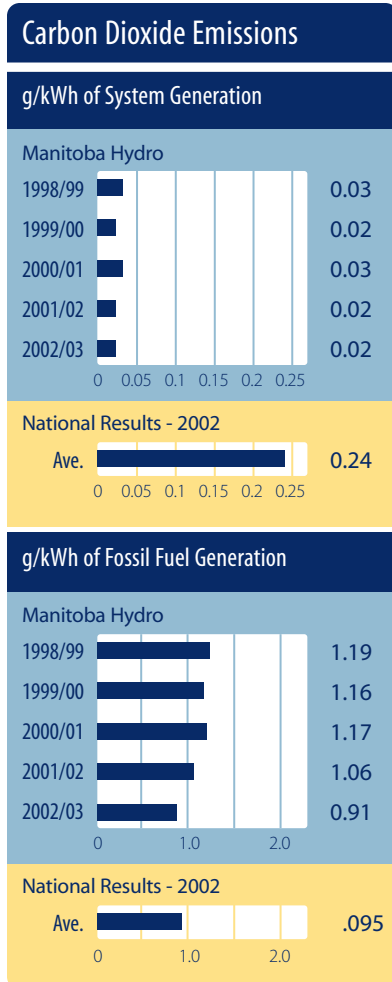
When it comes to reducing greenhouse gases, Manitoba Hydro has the most aggressive target of any major Canadian electrical utility. Between 1990 and 2012, we are committed to reducing greenhouse gases by an annual average of 6% below

1990 levels. Up until 2002, we had been operating within that target, but in 2002, our performance slipped to a 3% annual reduction. Still, with projects such as the Selkirk conversion and Chicago Climate Exchange as well as our investigations into wind power, we remain committed to our target; and with the potential to develop new clean hydroelectric projects (see page ***), we believe we can reduce our greenhouse emissions while expanding our energy production.

The following are other highlights of Manitoba Hydro's work to reduce greenhouse gases in 2002:

- We exported almost 6,700 more gigawatts of energy than we imported. Our exports help to reduce global greenhouse gases, since most of our electricity is produced at hydroelectric generating stations while our export markets rely mostly on thermal generation. Our exports are estimated to have avoided production of 6.6 megatonnes of greenhouse gases in 2002.
- In conjunction with Fisheries and Oceans Canada, we are studying greenhouse gas emissions from hydroelectric reservoirs. Preliminary results indicating that these emissions are very low will be verified over the next several years as the studies continue.
- Manitoba Hydro contracted for an independent audit of our greenhouse gas emission inventory. The audit concluded we generally adhered to best practices. Several recommendations, including the addition of sulphur hexafluoride and direct and indirect emissions from our buildings, have now been incorporated into our inventory.

For more details on greenhouse gas management, please see our VCR Reports under Publications on the Manitoba Hydro website at http://www.hydro.mb.ca/environment/env_publications. Once again, the Voluntary Registration Program awarded Manitoba Hydro its gold medal for reporting on our greenhouse management programs.





ENERGY AND THE COMMUNITY

3

Aboriginal Elders share their insights with Aboriginal girls in the “Building the Circle” summer camp sponsored by Manitoba Hydro

The people of Manitoba's North need healthy, comfortable, energy efficient housing designed for their climate and culture.

In 2002/03 Manitoba Hydro's energy efficient experts worked with local and provincial officials to design and build such a house. Located at 12 Queen's Bay in Thompson, it is now open as a Power Smart Energy Information Centre. Visitors will learn about Power Smart technologies that improve durability, comfort, and air quality while lowering energy costs.

The Northern Model House was built by the Manitoba Housing and Renewal Corporation with the support of Manitoba Hydro and five partners: Northern Association of Community Councils, Manitoba Metis Federation, Manitoba Keewatinowi Okimakanak, Assembly of Manitoba Chiefs, and Northern Urban Industrial Communities. Local people worked with the Manitoba Housing and Renewal Corporation and Manitoba Hydro's energy efficiency experts to plan and design the house that features panelized construction for ease of assembly, improved air quality and enhanced mould resistance for a healthier home, and a foundation system that can easily be constructed and that adjusts to soil movement. The costs for electrically heating the house are estimated to be about \$500 per year, 35 percent less than for a conventionally-built northern home.

A similar demonstration project is being conducted in Churchill.

The following are other community highlights for 2002/03:

- Agreement was reached on a 15-month action plan for Pimicikamak Cree Nation at Cross Lake for implementation of the Northern Flood Agreement. The plan provides for a number of programs that deliver employment and environmental improvements while attempting to minimize expenditures on administrative and process costs that don't directly achieve NFA commitments.
- Aboriginal employment initiatives with the Manitoba Metis Federation and the Aboriginal Council of Winnipeg were announced. These initiatives will enhance employment opportunities for aboriginal people at Manitoba Hydro.
- Manitoba Hydro's Spirit of the Earth Awards, recognizing environmental achievements in improving the environment or in the promotion of environmental awareness of Aboriginal people or in projects that directly involve Aboriginal people, were presented to 12 people.
- Over 100 local and provincial organizations throughout Manitoba receive support from Manitoba through the Keewatinohk Sopia ("Northern Rivers") Partnership Fund, the Environmental Partnership Fund, and the Forest Enhancement Program.



The Keewatinohk Sopia ("Northern Rivers) Partnership Fund works with local resource users to improve their access and safety along developed waterways

- The Power Smart Festival of Lights Parade lived up to its theme, "Bright Lights, Big City," as over 60 floats participated in Winnipeg's annual kick-off to the holiday season.
- Manitoba Hydro participated as an Eagle Sponsor for the North American Indigenous Games that attracted 7,000 athletes, coaches and officials to Manitoba.
- Over 2,400 Manitobans took advantage of a \$10 credit offered by Manitoba Hydro to purchase carbon monoxide detectors.

More information on these and other Manitoba Hydro initiatives is available on our website and in other publications, such as our annual report. You can visit our website at www.hydro.mb.ca or contact Manitoba Hydro Public Affairs at (204) 474-3311.

SAFETY IN THE WORKPLACE

Public, worker safety is our Corporate priority

GOAL:

- Continuously improve safety in the work environment
- Provide customers with exceptional value

TARGETS:

- High risk accidents: 0
- Accident frequency rate: <0.85 accidents per 200,000 hours worked
- Accident severity rate: <17 days per 200,000 hours worked
- Public contacts: 25% injury reduction

Safety is Manitoba Hydro’s most important goal and priority. Work processes and actions must conform to the highest standards. Safety must be practiced and improved continuously.

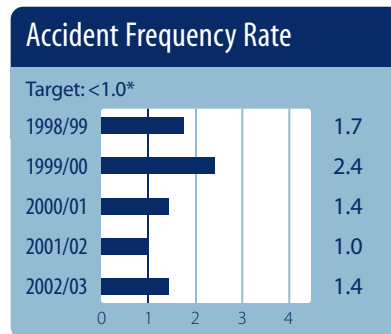
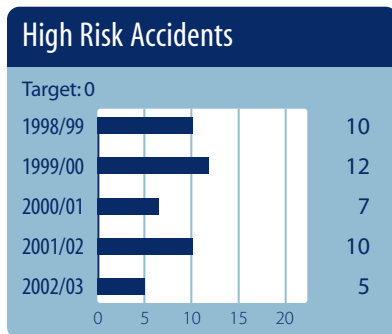
In 2002/03, there were five high risk accidents, two due to traffic accidents and three due to falls. High risk accidents include all reported injuries (not necessarily resulting in lost time) due to electrical contact, falls from heights greater than 3 meters, or vehicle accidents, all of which have significant probability of a fatal or permanent injury. The five high risk accidents this year were the fewest since 1999 when this strategic measure was first introduced. With continued emphasis on work

site visits and job planning, we hope to achieve our target of 0 high risk accidents.

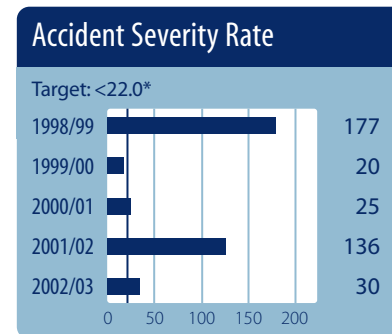
The severity rate indicates the number of work days lost to accidents for every 200,000 hours worked. Three accidents that caused extensive lost time brought the rate to 30 days in 2002/03, a significant drop from the previous year when one person died in a traffic accident, but still above the target of 17.

The accident frequency rate indicates the number of accidents for every 200,000 hours worked. There were 71 lost-time injuries during the year, up by 15 from the previous year. A behaviour based safety program is expected to improve our performance.

The number of accidental contacts that the public has with our system is also tracked. These range from vehicles striking poles to contractors digging up lines. There were 333 such incidents during 2002/03, 14 of which resulted in injuries. While the total number of contacts is trending downward, the 14 injuries is two more than the previous year and 11 more than two years ago. As part of our public safety programs, new initiatives are being developed to encourage people to call the utility before digging, to alert farmers about overhead dangers, and to inform new drivers about proper procedures if their vehicle does come in contact with our system.



*accidents per 200,000 hours worked



*days per 200,000 hours worked

OUR PEOPLE

Workforce to reflect demographic diversity

GOALS:

- Have highly skilled, effective, innovative employees and a diverse work-force that reflects the demographics of Manitoba Hydro
- Be a leader in strengthening working relationships with Aboriginal peoples

TARGETS:

- Aboriginal Employees Province Wide: 10% by 2005
- Aboriginal Employees in Northern Manitoba: 33% by 2005

At Manitoba Hydro, we value the background, experience, perspective and talents of each individual employee. We strive to create a workplace that reflects the diverse populations of the communities we serve through our employment equity initiatives.

Our commitment to employment equity was embodied in our Corporate Strategic Plan where targets for Aboriginal employees were revised, and specific goals added for women (including women in management and professional occupations), persons with disabilities, and members of visible minority groups. In the past year, particular progress was made in increasing the overall representation of women in management and Aboriginal employees both corporate-wide and in Northern Manitoba.

Manitoba Hydro was honoured by Human Resources Development Canada by being chosen as the recipient of its annual Employment Equity Vision Award. This is the second time the Corporation has received this national recognition, and is only the second company to have achieved this distinction twice.

Strategies that combined addressing long-standing systemic employment issues as well as temporary special measures were the equity focus in 2002/03. Some highlights include:

- New memorandums of understanding signed with the Manitoba Metis Federation and the Aboriginal Council of Winnipeg to establish joint employment working groups as a means to enhance Manitoba Hydro's ability to recruit and retain Aboriginal employees.
- Introduction of the "Building the Circle" summer camp for 10 Aboriginal girls exploring engineering, trades and technology. With the help of Aboriginal Elders, community partners, and Manitoba Hydro role models, the young women completed the first phase of the four-year initiative where they were introduced to potential career paths within the company.

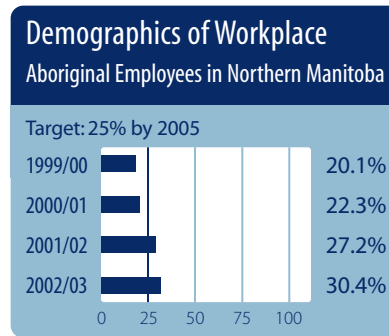


Local students are given some hands-on experience at the Grand Rapids Generating Station

- In honour of the Late Elder Frank Wesley, and in recognition of his support of Manitoba Hydro's Aboriginal employment initiatives – particularly those targeting youth, one of the Corporation's educational awards was renamed after Elder Wesley. The award was presented to an outstanding Aboriginal student by Anishnaabe Oway-Ishi at the Aboriginal Youth Achievement Awards Ceremony.
- The second Manitoba Hydro "Cool Jobs" video was completed and began airing on APTN – The Aboriginal Peoples Television Network. The focus of this particular video was on professional jobs within the company, such as engineering, finance, and information technology.
- Relationships continued to be built with the community by making presentations to both educational and employment organizations. The purpose of the communications was to share our entry requirements and competencies so as to attract qualified applicants to the company.

- Aboriginal summer employment targets were established and exceeded, due in part to special internship opportunities with the University of Manitoba Engineering Access Program, the University of Manitoba Aboriginal Business Education Program, and the Manitoba Aboriginal and Black Youth Career Awareness Program.
- Based on a successful initiative in Manitoba Hydro's Northern operations, an Aboriginal Pre-Placement Training program was introduced in the South, targeting electrical, mechanical, station operator, and line trades. This bridging initiative allowed candidates to gain exposure to a variety of technical careers while completing any required academic upgrading.
- Approval was received to develop a framework leading to the re-employment of persons with Acquired Brain Injury (ABI). Working with key partners – Neuro Recovery Services, LifeWorks, and the Manitoba Brain Injury Association – a pilot was initiated with four candidates identified for the initial program implementation. It was envisioned that Manitoba Hydro would later partner with other employers in identifying opportunities that would accommodate their respective employees with ABI.

- Manitoba Hydro sponsored the enrollment of employees into the University of Manitoba's Management Development for Women Certificate Program. Five Women, representing different areas of the company, were offered this opportunity to further develop their leadership skills.
- A joint union/management Employment Equity Review Team was created to identify special initiatives to increase the representation of women, persons with disabilities, and members of visible minority groups within the Corporate workforce. As was the case with Aboriginal employment, the team began an "employment systems review" to identify opportunities for positive change.



CORPORATE CITIZENSHIP

GOAL:

- Be an outstanding corporate citizen

TARGET:

- ≥ 8.5 on Canadian Electricity Association's Public Attitude Index

Manitoba Hydro takes a leadership role in corporate citizenship through community support programs and active encouragement of staff participation in community activities. We are very interested in your concerns and how you view your Crown utility.

National surveys indicate that customers remain very satisfied with Manitoba Hydro's overall customer service, measuring 8.2 out of a possible 10. The average for utilities across Canada is 8.0.

In addition to the national survey, Manitoba Hydro has also developed its own corporate citizenship index. The index is a composite of average customer satisfaction with public safety, environmental behaviour, and corporate and employee community involvement. At the end of 2002/03, the index was at 7.6, slightly below our target of 8.0.



Manitoba Hydro President and CEO R.B. Brennan accepts the Voluntary Challenge & Registry Program's Leadership Award in the electric utilities category from Federal Minister of Natural Resources Herb Dhaliwal. The VCR Program tracks corporate commitments to greenhouse gas management.

OUR SUSTAINABLE DEVELOPMENT PRINCIPLES

1 STEWARDSHIP OF THE ECONOMY AND THE ENVIRONMENT

Manitoba Hydro will recognize its responsibility as a caretaker of the economy and the environment for the benefit of present and future generations of Manitobans. Manitoba Hydro will meet the electricity needs of present and future Manitobans in a manner that ensures the long-term integrity and productivity of our economy, our environment, our natural resources and safeguards our human health.

2 SHARED RESPONSIBILITY

Manitoba Hydro will ensure that Manitoba Hydro's employees, contractors, and agents are aware of our sustainable development policies and guiding principles and encourage them to act accordingly.

Manitoba Hydro will encourage the Corporation's employees to share their knowledge of the concepts and practical application of sustainable development.

3 INTEGRATION OF ENVIRONMENTAL AND ECONOMIC DECISIONS

Manitoba Hydro will treat technical, economic and environmental factors on the same basis in all corporate decisions, from initial planning to construction to operations to decommissioning and disposal. To the extent practical, Manitoba Hydro will include environmental costs in economic and financial analysis.

4 ECONOMIC ENHANCEMENT

Manitoba Hydro will enhance the productive capability and quality of Manitoba's economy and the well-being of Manitobans by providing reliable electrical services at competitive rates.

5 EFFICIENT USE OF RESOURCES

Manitoba Hydro will encourage the development and application of programs and pricing mechanisms for efficient and economic use of electricity by our customers. As well, efficient and economic use of energy and materials will be encouraged throughout all our operations.

6 PREVENTION AND REMEDY

Manitoba Hydro will to the extent practical, anticipate and prevent adverse environmental and economic effects that may be caused by Corporate policies, programs, projects and decisions rather than reacting to and remedying such effects after they have occurred.

Where practical, environmentally sound products will be purchased, taking into account the lifecycle of the products.

Manitoba Hydro will address adverse environmental effects of Corporate activities that cannot be prevented by:

- first, endeavouring, wherever feasible, to restore the environment to pre-development conditions or developing other beneficial uses through rehabilitation and reclamation
- second, striving to replace the loss with substitutes that would enhance the environment and/or associated resource uses while offsetting the type of damage experienced
- third, making monetary payments for compensable damages on a fair, equitable and timely basis.

OUR SUSTAINABLE DEVELOPMENT PRINCIPLES (CONTINUED)

7 CONSERVATION

Manitoba Hydro will to the extent practical, plan, design, build, operate, maintain and decommission Corporate facilities in a manner that protects essential ecological processes and biological diversity.

Manitoba Hydro will give preference, where practical, to projects and operating decisions that use renewable resources or that extend the life of supplies of non-renewable resources.

8 WASTE MINIMIZATION

Manitoba Hydro will manage all wastes arising from Corporate activities by:

- first, endeavouring to eliminate or reduce the amount generated
- second, striving to fully utilize reuse and recycling opportunities
- third, disposing of remaining waste in an environmentally sound manner.

9 ACCESS TO ADEQUATE INFORMATION

Manitoba Hydro will share relevant information on a timely basis with employees, interested people and governments to promote a greater understanding of Manitoba Hydro's current and planned business activities and to identify impacts associated with the Corporation's plans and operations.

10 PUBLIC PARTICIPATION

Manitoba Hydro will provide opportunities for input by potentially affected and interested parties when evaluating development and program alternatives and before deciding on a final course of action.

11 UNDERSTANDING AND RESPECT

Manitoba Hydro will strive to understand and respect differing social and economic views, values, traditions and aspirations when deciding upon or taking action.

Preference will be given to those alternatives which best fulfill Corporate objectives while minimizing infringement on the ability, rights, and interests of others to pursue their aspirations

12 SCIENTIFIC AND TECHNOLOGICAL INNOVATION

Manitoba Hydro will research, develop, test and implement technologies, practices and institutions that will make electrical supply and services more efficient, economic and environmentally sound.

13 GLOBAL RESPONSIBILITY

Manitoba Hydro will recognize there are no political and jurisdictional boundaries to our environment, and that there is ecological interdependence among provinces and nations.

Manitoba Hydro will consider environmental effects that occur outside of Manitoba when planning and deciding on new developments and major modifications to facilities and to methods of operation.

OUR VISION

To be recognized as the best utility in North America with respect to safety, rates, reliability, customer satisfaction and environmental management, and to be considerate of all people with whom we have contact.

OUR MISSION

To provide for the continuance of a supply of energy adequate for the needs of the province, to promote economy and efficiency in the development, generation, transmission, distribution, supply, and end-use of energy, and to provide and market energy and related products and services, within and outside the province.

OUR GOALS

Continuously improve safety in the work environment.

Provide customers with exceptional value (rates, service, public safety, reliability, and power quality).

Be a leader in strengthening working relationships with Aboriginal peoples.

Improve corporate financial strength.

Maximize export power net revenues.

Have highly skilled, effective, innovative employees and a diverse workforce that reflects the demographics of Manitoba.

Be proactive in protecting the environment and be a recognized leader in doing so.

Be an outstanding corporate citizen.

Proactively support agencies responsible for business development in Manitoba.

OPERATING PRINCIPLES

Work together for the success of the organization as a whole, recognizing that all our activities are interrelated.

Establish long-term, cooperative relationships with all employees, customers, suppliers, and other stakeholders, aimed at achieving our shared Vision.

Create a working environment which removes barriers to effective performance and which fosters mutual respect, trust, and open communication.

Provide opportunities for all employees to develop their full potential, recognizing people's inherent desire to do their best.

Measure outcomes, develop an understanding of the causes of variation from planned performance, and take appropriate action.

Practise continuous improvements through ongoing coaching, learning, and innovation, focused on the needs and wants of internal and external customers.

THE MANITOBA HYDRO-ELECTRIC BOARD



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ENVIRONMENTAL MANAGEMENT POLICY

Manitoba Hydro is committed to protecting the environment. In full recognition of the fact that Corporate facilities and activities affect the environment, Manitoba Hydro integrates environmentally responsible practices into its business, thereby:

- preventing or minimizing any adverse impacts, including pollution, on the environment, and enhancing positive impacts,
- meeting or surpassing regulatory requirements and other commitments,
- considering the interests and utilizing the knowledge of our customers, employees, communities, and stakeholders who may be affected by our actions,
- reviewing our environmental objectives and targets annually to ensure improvement in our environmental performance,
- continually improving our Environmental Management System,
- documenting and reporting our activities and environmental performance.