

## 9.0 SUSTAINABILITY ASSESSMENT

This chapter examines how Manitoba Hydro's corporate sustainable development policies are incorporated into the planning, design, construction, operation and maintenance, and eventual decommissioning of the Keeyask Transmission Project, as well as how Manitoba's Principles and Guidelines of Sustainable Development, advocated by *The Sustainable Development Act* (SDA), have been met.

### 9.1 SUSTAINABLE DEVELOPMENT

The Province of Manitoba has adopted the general definition for sustainable development from the Brundtland Commission Report entitled *Our Common Future* (United Nations World Commission on Environment and Development 1987) which is to "meet the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development is considered a general philosophy, ethic and approach to guide individual and collective behaviour with respect to the environment, the economy and social well-being. In 1998, the Province of Manitoba established the SDA to create a framework through which sustainable development is implemented in the provincial public sector and promoted in private industry and society in general. The SDA contains principles and guidelines as the framework for implementing sustainable development in the Province. Manitoba's Crown Corporations are required to establish and adopt a corporate sustainable development policy to complement sustainable development in the Province.

As a responsible corporate citizen, Manitoba Hydro (the Corporation) strives to be a leader in stewardship and is guided by the principles of sustainable development outlined in the SDA. Manitoba Hydro uses a Plan-Do-Check Environmental Management System (EMS), registered to the ISO 14001 Environmental Management System standard, as a method of meeting and/or exceeding environmental compliance and protection requirements. A keystone of this system is Manitoba Hydro's Environmental Management Policy, which guides all of the Corporation's operations (Manitoba Hydro 2008). In addition to the policy commitments identified below, the Corporation has identified transmission line construction as a significant environmental activity. This recognition highlights internally the need for allocation of resources and prevention of impact over and above other activities Manitoba Hydro is engaged in including:

- Preventing or minimizing adverse impacts, including pollution, on the environment and enhancing positive impacts.
- Continually improving their EMS.
- Meeting or surpassing regulatory requirements and other commitments.

- Considering the interests, and utilizing knowledge of the Corporation’s customers, employees, communities, and stakeholders who may be affected by our actions.
- Reviewing our environmental objectives and targets annually to ensure improvement in environmental performance.
- Documenting and reporting our activities and environmental performance.

Manitoba Hydro is also a member of the Canadian Electricity Association Sustainable Electricity Program. This is an industry specific program focused on enabling the Canadian electricity sector to manage sustainability from a holistic perspective. As a participant in the program, Manitoba Hydro reports on sustainability indicators regarding social, environmental and economic performance. Although not presented at a utility or regionally specific level, the Canadian Electricity Association releases an annual report of industry performance relative to these sustainability indicators.

## **9.2 KEYASK TRANSMISSION PROJECT SUSTAINABILITY ASSESSMENT**

Table 9-1 indicates how Manitoba Hydro and the Province of Manitoba’s sustainable development principles and guidelines are incorporated into the planning, design, construction, operation and maintenance, and eventual decommissioning of the Keeyask Transmission Project, where applicable.

Manitoba Hydro is committed to the incorporation of sustainability into all aspects of its operations to achieve environmentally sound and sustainable economic development. Manitoba Hydro established and adopted its corporate sustainable development policy in 1993 to complement the provincial framework, which pre-dates the development of the SDA enacted in 1998. Manitoba Hydro’s policy and its 13 principles, that are considered in all aspects of Manitoba Hydro’s operations (Manitoba Hydro 1993), are based on the principles and guidelines initially developed by the Manitoba Round Table on the Environment and the Economy. Through its decisions and actions to provide electrical services, Manitoba Hydro strives to meet the needs of the present without compromising the ability of future generations to meet their needs.

**Table 9-1: Sustainability Assessment for the Keeyask Transmission Project<sup>1</sup>**

<b>MB Sustainable Development Principles and Guidelines</b>	<b>Comment</b>	<b>Actions</b>
<b>Stewardship</b>	<ul style="list-style-type: none"> <li>Manitobans are the caretakers of the economy, the environment, human health and social well-being for the benefit of present and future generations.</li> </ul>	The Project will help reduce dependence on the existing transmission system, contribute to the supply of clean reliable electricity as well as provide economic benefits to Manitobans.
<b>Shared Responsibility and Understanding</b>	<ul style="list-style-type: none"> <li>Manitobans should acknowledge responsibility for sustaining the economy, the environment, human health and social well-being, with each being accountable for decisions and actions in a spirit of cooperation.</li> </ul>	Planning, designing, constructing, operating and maintaining the proposed Project involves many departments within Manitoba Hydro, as well as external consultants and contractor staff. Personnel gained an awareness of technical and environmental issues associated with the Project and considered such concerns to arrive at balanced project decisions.
<b>Integration of Environmental and Economic Decisions</b>	<ul style="list-style-type: none"> <li>Economic decisions should adequately reflect environmental, human health and social effects.</li> <li>Environmental initiatives should adequately take into account economic, human health and social consequences.</li> </ul>	The goal of the site selection process for the Project was to balance environmental, economic and social considerations in identifying alternative routes and ultimately selecting the Preferred Routes and Station Sites. Through the route selection process, alternate alignments were selected to avoid sensitive areas. Technical feasibility and cost effectiveness were also considered. The ultimate goal of the process was to select a route that was feasible, had the least impact on the environment, and was the most cost effective of the alternatives.
<b>Economic Enhancement</b>	<ul style="list-style-type: none"> <li>To enhance the Manitoba's economic capacity and to create employment for its citizens.</li> </ul>	The Project will promote economic development and provide employment for members of the local aboriginal community.
<b>Prevention and Remedy</b>	<ul style="list-style-type: none"> <li>Manitobans should anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects of decisions and actions. Decisions should be made on reasonable and well-informed grounds, considering</li> </ul>	A proactive approach was taken through the identification of alternative routes and ultimately the selection of the Preferred Route and Station Sites to avoid adverse environmental effects and

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	crucial elements such as the economy, the environment, human health and social well-being.	enhance positive project effects.
<b>Conservation</b>	<ul style="list-style-type: none"> <li>Maintain the ecological processes, biological diversity and life-support systems of the environment.</li> </ul>	Conservation has been a primary focus of the Project planning and design. The Keeyask Transmission Project is subject to a comprehensive environmental assessment to identify the effects of the project on the environment and communities and to mitigate any adverse effects.
<b>Access to Information</b>	<ul style="list-style-type: none"> <li>Encouraging and facilitating the improvement of economic, environmental, human health and social information; and promoting the opportunity for equal and timely access to such information by all Manitobans.</li> </ul>	Project information has been and will continue to be shared with all stakeholders affected and interested in the Project through a variety of means such as public consultation forums and through the regulatory review process.
<b>Public Participation</b>	<ul style="list-style-type: none"> <li>Establishing forums that encourage and provide opportunity for consultation and meaningful participation in decision-making processes by Manitobans.</li> </ul>	An extensive consultation program was undertaken with governments, stakeholders, Aboriginal groups and the public to assist in the selection of the Preferred Routes and Sites. This included the provision of Public Open Houses, as well as the creation and maintenance of lines of communication to allow for meaningful discourse.
<b>Understanding and Respect</b>	<ul style="list-style-type: none"> <li>Understanding and respect for differing social and economic views, values, traditions and aspirations is necessary for equitable management of these common resources.</li> </ul>	Local Aboriginal peoples were consistently involved, consulted and kept informed of relevant project related issues. Their needs and views were carefully considered.

<sup>1</sup>Manitoba Hydro adopted a sustainable development policy and 13 complementary guiding principles based on the principles and guidelines of sustainable development adopted by the Manitoba Round Table on Environment and Economy.

Outlined below are nine of the guiding principles that are considered particularly relevant to the planning, development, operation and maintenance of the Project based on the scale and social aspects of the Project:

1. Stewardship
2. Shared responsibility (amongst staff)
3. Integration of environmental and economic decisions
4. Economic enhancement
5. Prevention and remedy
6. Conservation
7. Access to adequate information
8. Public participation
9. Understanding and respect

### **9.2.1 Stewardship**

Manitoba Hydro recognizes its responsibility as a caretaker of the economy and the environment for the benefit of present and future generations of Manitobans. Consistent with both First Nations commitment to caring for the environment and Manitoba Hydro's commitment to sustainable development, the Keeyask Transmission Project has been designed to minimise adverse effects and maximise benefits to local and regional residents. Furthermore, Manitoba Hydro has taken a holistic consultative approach to development and has recognised the importance and contribution of Aboriginal Traditional Knowledge (ATK) in the decision-making process.

### **9.2.2 Shared Responsibility**

This aspect of sustainable development provides for thorough consultation and meaningful internal discourse amongst staff to “ensure that Manitoba Hydro's employees, contractors, and agents are aware of...sustainable development policies and guiding principles...to...encourage them to act accordingly” and to encourage the sharing of “knowledge of the concepts and practical application of sustainable development” (Manitoba Hydro 2012).

Planning, developing, operating and maintaining transmission lines and stations involves personnel from many departments within Manitoba Hydro, as well as staff of various

consultants and contractors. The key staff involved will vary as the Project progresses through its development stages.

Traditionally, all of these personnel have had some responsibility for technical and economic considerations in their project decisions and actions. With sustainable development, their responsibility is extended to include environmental considerations.

Key personnel from departments having a role or interest in planning, design and construction of the Project had the opportunity for consistent holistic participation that contributed to overall direction and decision-making. Through this process, personnel gained an awareness of technical, cost and environmental issues, and developed and modified plans in response to significant concerns. An Environmental Protection Plan (EnvPP) will be prepared to assure field staff and contractors can effectively fulfill their responsibility for protecting the environment during Project construction.

### **9.2.3 Integration of Environmental and Economic Decisions**

Sustainable development is a complex yet necessary process that involves the integration of technical, cost and environmental considerations. These criteria were rigorously applied to, and included in, the site selection process for the Keeyask Transmission Project. In accordance with sustainable development, all issues were weighted on an equal basis. An overall balance was struck in which costly siting options and critical environmental effects were minimized. These measures are consistent with the principle of Integration of Environmental and Economic Decisions.

### **9.2.4 Economic Enhancement**

The Project will facilitate the supply of clean renewable electricity and “enhance the productive capability and quality of Manitoba's economy and the well-being of Manitobans by providing reliable electrical services at competitive rates” (Manitoba Hydro 2012).

Importantly, the Keeyask Transmission Project will provide employment to local Aboriginals in an area that traditionally suffers from lack of industry and high unemployment. According to Manitoba Aboriginal and Northern Affairs (2012), northern communities are amongst the most disadvantaged in the Province. With this in mind, the Project should catalyze additional economic growth through employment and ancillary support businesses. Northern electrical projects “have the potential for up to 20 years of direct/indirect employment for northern Aboriginal Manitobans and for other economic spin-offs” (Manitoba Aboriginal and Northern Affairs 2012).

## **9.2.5 Prevention and Remedy**

As with any development, not all environmental damage can be prevented; some residual effects are inevitable. However, Manitoba Hydro make every effort “to 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” (Manitoba Hydro 2012). To remedy these effects, mitigation and compensation programs will be implemented in accordance with the Prevention and Remedy principle. Discussions with Stakeholders resulted in Project design parameters aimed at minimizing environmental disruption. These discussions established mechanisms, such as appropriate routing, to avoid, offset and mitigate Project effects. Manitoba Hydro expects that this Project will avoid creating any serious environmental problems and that residual environmental effects will be satisfactorily addressed. In accordance with the principle of Conservation, essential ecological processes and biological diversity in the area are being protected.

## **9.2.6 Conservation**

As a responsible corporate citizen, Manitoba Hydro integrates the principles of conservation into the day-to-day running of operations where it is practicable to do so. Special efforts have been made to avoid or minimize Project effects to habitat and ecosystem fragmentation (i.e., reduced intactness); sensitive terrestrial plant and wildlife habitat sites were avoided to the extent feasible when choosing a preferred route for the Keeyask Transmission Project. Furthermore, “*preference is given to projects and operating decisions that use renewable resources or that extend the life of supplies of nonrenewable resources*” (Manitoba Hydro 2012).

## **9.2.7 Access to Adequate Information and Public Participation**

A Public Involvement Program was conducted to provide information to, and receive input from, members of the public who had an interest in the Keeyask Transmission Project. Meetings were held with First Nations and other Aboriginal interests, government representatives, resource users and local residents. A Public Open House was conducted in Gillam with the dual purpose of furnishing locals with relevant information and creating a platform for meaningful discourse. Further meetings were also held with Aboriginal groups, including Fox Lake Cree Nation (FLCN) and Tataskweyak Cree Nation (TCN).

The Public Involvement Program solicited input into identification and evaluation of alternative routes for the proposed transmission lines, and selection of the Preferred Routes. Information regarding the Preferred Transmission Line Routes was also presented, and

feedback on possible mitigation measures to reduce unavoidable environmental impacts was solicited. Two rounds of public engagement were held for the Project as well as a variety of engagement activities such as meetings that occurred with community representatives. An integral part of the Public Involvement Program was the provision of timely and relevant information about the Project and its potential impacts on interested parties.

### **9.2.8 Understanding and Respect**

Considerable effort has been made in forging constructive relationships between Manitoba Hydro and the Keeyask Cree Nations, including facilitating community studies aimed at understanding history, community history, and more importantly the Cree worldview and Aboriginal Traditional Knowledge (ATK). This growing understanding has had a major influence on Project design, construction and operation. Manitoba Hydro is actively encouraging participation from the Manitoba Metis Federation and FLCN and undertaking ATK studies related to the Project. Both studies are a result of a concerted attempt to foster a culture of understanding and respect.

## **9.3 PROJECT BENEFITS AND PURPOSE**

The purpose of the Keeyask Transmission Project is to contribute renewable, clean and domestic energy to Manitoba's electrical supply to help meet domestic and export needs. The benefits of the Project are many and varied, and include the following:

- Hydroelectric power is a sustainable and reliable source of electricity.
- It contributes to both Manitoba and Canada in meeting their national Greenhouse Gas emission-reduction goals.
- The Project will help meet national Kyoto and/or general clean air commitments in a cost-effective manner.
- It further demonstrates the ability of hydroelectric power to provide a reliable, economical and environmentally acceptable energy resource in the region.
- It contributes to the Manitoban economy by generating sustainable profit from sales to other provinces and the North American market.
- The construction, operation and maintenance of the Project will provide community benefits through job creation and stimulation of the local economy.

- The development of the Construction Power Transmission line prior to the Keeyask Generating Station will have a net environmental benefit through avoiding the need to use diesel fuel generators, which have additional environmental effects.
- It can accomplish all of the above with no significant environmental effects.

## **9.4 CONCLUSIONS**

The analyses reveal that the Keeyask Transmission Project is an excellent example of sustainable development. The Project is being developed to meet domestic needs for energy as well as commitments to export energy to the United States. The Project will help guarantee that a reliable supply of electricity is accessible to Manitobans today as well as to future generations. The Project embodies sustainable development principles so that there is consideration of the environment, engineering design, economy, health, cost and social well-being through integrated decision making. Adverse environmental and social effects are avoided, minimized or compensated for as a result of a comprehensive environmental assessment process that included public, stakeholder and Aboriginal participation. Plans will be in place to minimize waste, protect the environment and rehabilitate construction sites.

