CHAPTER 10

CONCLUSIONS

KEEYASK
Hydropower Limited Partnership

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10.0 CONCLUSIONS

10.1 INTRODUCTION

The Keeyask Hydropower Limited Partnership (the Partnership) has put forward the Keeyask Generation Project (the Project) for authorization in accordance with the *Canadian Environmental Assessment Act* (S.C. 1992, C. 37) and *The Environment Act* (Manitoba). The Partnership is comprised of four limited partners (Cree Nation Partners, representing Tataskweyak Cree Nation and War Lake First Nation; York Factory First Nation; Fox Lake Cree Nation; and Manitoba Hydro) and one general partner (5900345 Manitoba Ltd., a company owned by Manitoba Hydro).

Each of the Keeyask Cree Nations (KCNs) has previously undertaken its own evaluation of the Project. The Partnership has now produced a comprehensive environmental impact statement (EIS) in accordance with the requirements of the federal and provincial regulatory processes. The EIS includes an executive summary, this Response to EIS Guidelines, the KCNs' Environmental Evaluation Reports and a video, *Keeyask: Our Story*. The evidence presented in the Keeyask EIS demonstrates that the Project meets and exceeds the criteria by which the federal and provincial governments are to determine whether the Project will be approved.

10.2 FEDERAL CRITERIA

A primary purpose of the federal Act is "to ensure that projects are considered in a careful and precautionary manner before federal authorities take action in connection with them, in order to ensure that such projects do not cause significant adverse environmental effects." Consistent with the act, the Canadian Environmental Assessment Agency issued guidelines that directed the Partnership:

- To focus its assessment on valued environmental components (VECs); and
- To determine if the Project will cause a "significant" adverse effect, based on the effect's magnitude; geographic extent; timing, duration and frequency; reversibility; ecological and social context; level of confidence and probability; and existing environmental standards, guidelines or objectives.

Thirty-eight VECs were selected for the assessment and, following mitigation, none of the residual adverse effects exceeded the regulatory test for significance. That same conclusion held when the cumulative effects of the Project were considered in combination with the effects of past, current and future projects that overlap temporally and spatially with the Project.

One of the VECs – lake sturgeon – deserves special mention. Lake sturgeon are culturally and spiritually important to the Cree people and have special status as a heritage species in Manitoba. They have been designated as endangered by the Committee on the Status of Endangered Wildlife in Canada and are being considered for listing under the federal *Species at Risk Act*. They are also vulnerable to the effects of hydroelectric development. As a result, the Partnership has given the species special attention. New spawning habitat will be created to replace habitat being lost because of the Project, and a stocking program will be implemented. Stocking programs have been successful in re-establishing sturgeon populations in many other locations, and early results from the upper Nelson River appear positive. As a result, the Partnership is confident that similar results can be attained in the Keeyask area and is committed to utilizing an adaptive management approach to sturgeon stewardship with the objective of enhancing the sturgeon population in the lower Nelson River.

10.3 PROVINCIAL CRITERIA

The intent of the provincial Act is "to develop and maintain an environmental protection and management system in Manitoba which will ensure that the environment is protected and maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for this and future generations."

The evidence presented in the EIS demonstrates that the Project will certainly contribute to social and economic development while maintaining a system of environmental protection and management. The following is a summary of this evidence:

- Many potential environmental effects were avoided with the selection of a Project that minimizes the amount of flooding, which is a primary pathway to other environmental effects:
    - For example, the Project has been downsized from a 1150 MW high-head concept that would have initially flooded over 180 km^2 to a 695 MW low-head project that will initially flood 45 km^2.
- A decade-long environmental assessment process has been undertaken to identify potential adverse effects and develop appropriate mitigation measures;
- An extensive monitoring program will be applied to compare actual effects against the predictions that were based on technical scientific studies, professional judgement, and Aboriginal traditional knowledge; and
- Many adaptive management strategies have been identified, should the monitoring program indicate such strategies are required.

In addition to managing adverse effects, the Project will provide a number of environmental benefits. For example, the Project's hydroelectricity will produce fewer greenhouse gases in a

century of operation than an equivalent coal thermal station would produce in 100 days and a gas thermal station in half a year. The Project will also contribute to the Manitoba economy as a preferred source of low-emitting, renewable energy, as well as a source of over 4,000 person-years of construction employment during the eight year construction period; and more broadly to the Canadian economy.

The Project will also contribute to the social and economic development of local communities and the northern region. For example:

- The four local Cree Nations (*i.e.,* the KCNs) are partners in the Project, sharing in its governance and future returns on investment;
- A number of contracts will be directly negotiated with businesses controlled by the KCNs;
- Qualified Aboriginal and other northern workers will be given preference for jobs to construct the Project; and
- Agreements negotiated with the four local Cree Nations address adverse effects on each Nation's collective rights and interests and the exercise of Treaty and Aboriginal rights by their Members:
    - The core of each agreement is a set of Offsetting Programs, the overall purpose of which is to provide appropriate replacements, substitutions or opportunities to offset unavoidable adverse effects on the practices, customs and traditions integral to their distinctive cultural identity.

10.4 THE PRECAUTIONARY APPROACH

The concept of using a precautionary approach has been an implicit foundation in the planning and design of the Project, using both technical science and Aboriginal traditional knowledge (ATK). Alternative reservoir levels and general arrangements were evaluated during the initial stages of project planning. Some alternatives would avoid or reduce potential effects, while others would have cost less per unit of power but would have had more adverse effects. Taking the precautionary approach, the alternatives that would avoid or lessen adverse effects were selected. Once the fundamentals of the Project were defined, the Partnership continued to take a precautionary approach in designing the Project.

One example was the decision to clear the entire reservoir area before impoundment. Another example was the decision to minimize the operational range of the reservoir to one meter, which is very small for a hydroelectric station of this magnitude.

A third example of the use of the precautionary principle was an output from discussions with the Department of Fisheries and Oceans (DFO) regarding fish passage. Approximately 10 years of study on fish movements indicated that fish did not need to move up over the

dam to fulfill any of their life cycle requirements (e.g., spawning) and considerable effort was therefore placed on developing sufficient habitat in upstream and downstream areas to support local fish populations. However, through discussions with DFO a decision was made to commit to implementing fish passage at the Project using trap and transport and also to design the Project so it could be retrofitted to accommodate other fish passage options in the future, if follow-up monitoring indicates it is required.

While the precautionary approach has been used in many Project-related decisions to avoid adverse effects in the absence of scientific knowledge, it is important to stress that the Project has benefitted from more than 10 years of both scientific study and discussions and input from the local Cree Nations in sharing their ATK. In addition, potential effects have been avoided and mitigation measures identified and incorporated in the Project's plans, and a program of monitoring and adaptive management will be implemented.

10.5 KEEYASK CREE NATIONS' EVALUATIONS OF THE PROJECT

As noted in the EIS, the Project is actually the subject of two evaluation processes. In addition to the government regulatory environmental assessment process, each of the KCNs has also undertaken its own environmental evaluation process. In the KCNs' process, each of the KCNs, financially assisted by Manitoba Hydro, evaluated the impact of the Project on its communities and Members in terms of its own worldview, values and experience with past hydroelectric development. This assisted each Cree Nation when deciding to participate in the Partnership; in becoming partners, they also committed their support to the Partnership's application for regulatory approval of the Project. In voting to approve the Joint Keeyask Development Agreement, the KCNs expressed the hope – a realistic hope based on careful evaluation – that the Project will help to improve their home ecosystem's ability to sustain them physically and culturally and to restore harmony and balance to relationships and their lives; and that the Project will provide opportunities for current and future generations while respecting and caring for *Askiy*.

10.6 CONCLUDING STATEMENT

The Keeyask Generation Project will cause numerous and widespread environmental and social effects, some of which would have had the potential to be significant. However, using past experience, Aboriginal traditional knowledge and leading scientific and engineering techniques, the Keeyask Hydropower Limited Partnership has mitigated, remediated and/or compensated for these effects, such that the Partnership is confident the Project should proceed. The Project will also produce substantial environmental, social and economic

benefits, all of which are consistent with the principles of sustainability established by the Governments of Canada and Manitoba. The Project will contribute to reductions in greenhouse gases and increases in lake sturgeon populations; it will provide training and employment for hundreds of Aboriginal and northern workers; it will enable the Keeyask Cree Nations Partners to build capacity and profit from construction contracts and their investment as equity partners; and it will produce clean renewable energy for Manitobans and export markets. As such, the Partnership believes the Project should be granted regulatory approval to proceed.