

Summary of 1979 Tritschler Report

**(Final Report of the 1979 Inquiry into Manitoba Hydro
– Comissioner George E. Tritschler)**

Prepared by Paskanake Project Management (PPM)

November 2002

Overview

The Final Report of the 1979 Commission of Inquiry into Manitoba Hydro, headed by George E. Tritschler (the 'Tritschler Report'), undertook an in-depth examination of Manitoba Hydro with particular emphasis on the decisions leading up to the development of the Churchill River Diversion (CRD) and Lake Winnipeg Regulation (LWR) projects.

In accordance to its terms of reference, the Commission completed a review of the *economy and efficiency* of Manitoba Hydro's development/investment decisions as well as Manitoba Hydro's policies, plans, procedures, operations and activities relating to the present and future development. Its final report had five parts. Part 1 provided an overview of the Inquiry as well as a summary of its conclusions. Part 2 provided an overview of the history of the development of Manitoba's hydroelectric system. Part 3 provided a detailed overview of the decisions concerning the development of the CRD and LWR projects.¹ Part 4 provided a review of the regulations, practices, policies etc. in relation to Manitoba Hydro and the Government of Manitoba.² Part 5 provided conclusions and recommendations.

The Context

According to the Commission, there were a number of important factors that led to the Inquiry. A major factor was the significant and successive cost overruns for projects relating to the CRD and LWR. See the below chart for details.

| Project | Budgeted Cost | Actual Cost | Over Budget | % Over Budget |
|--------------|----------------|------------------|----------------|---------------|
| LWR | \$105 M | \$315 M | \$210 M | 200% |
| CRD | \$109 M | \$226 M | \$117 M | 107% |
| Long Spruce | \$448 M | \$505 M | \$57 M | 13% |
| Total | \$662 M | \$1,046 M | \$384 M | 58% |

Other factors included the declining demand in electricity in the mid-1970's, the subsequent decision to postpone the Limestone Generation Project, the utility's subsequent excess supply capacity, and concerns over the size of Manitoba Hydro's debt (nearly 2/3's of the total provincial debt).

¹ Part 3 reviews the planning and development decisions (1965 to 1978) in relation to specific development activities such as the Kettle Generating Station, the High Level CRD Project, LWR, Jenpeg Generating Station, the Long Spruce Generating Station, and the CRD. In addition, Part 3 also reviews specific issues related to CRD Mitigation, the 1973 Government Task Force on Exports, the Nuclear Option, Limestone Development, and the Burntwood River Generation Potential.

² Specifically, this chapter reviews Manitoba Hydro's practices and procedures with respect to system planning, socioeconomic and environmental aspects of development, financial planning, project design and implementation, system operations, accounting and financial aspects, public relations, legal capacity, corporate management, and roles and relationship of government and Hydro.

Main Conclusions

With respect to its development decisions, the Commission concluded that Manitoba Hydro did not properly discharge its mandate to promote *economy and efficiency* in the supply and use of electrical power. According to the Commission, the ‘adverse impact on rates has been significant’. Furthermore, the Commission concluded that Manitoba Hydro had not properly accounted for a reasonable rate of return on its major investments beyond the mere coverage of the direct financial costs of operation and interest with an allowance for depreciation (a rate of return of 15% was suggested as reasonable).³

For stations to be committed for installation, they must be justified on the basis of a vague concept of ‘build it now, it will be needed eventually’. In the future, generating facilities should be dedicated for export and installed in advance of system requirements only when Hydro and Government are contractually assured that the export of such power can be made with profit and at an appropriate rate of return on investment. Page 467

The Commission further concluded that Manitoba Hydro lacked an essential capacity in key business areas such as economic modeling, financial planning, contracting, tendering, and cost-estimates.

According to the Commission, Manitoba Hydro did not need to rush into the development of either the CRD or the LWR projects in the costly manner that they did. By moving fast at this stage, Manitoba Hydro was not in a good position to properly assess and control project costs in any effective manner. This ultimately led to poor design decisions as well as significant cost overruns.

In contrast, a more responsible decision would have been to delay the development of both CRD and LWR projects and, instead, invest in an alternative scheme in order to meet the short-term energy demands with dependable supplies. Alternative schemes included one or more of the following: (1) development of a thermo-generating facility, (2) secure supplies via import/export arrangements with Saskatchewan and the United States, and (3) re-negotiate a letter of intent for the export of electricity between Manitoba Hydro and Ontario.⁴

An important factor in an alternative course of action was that fact that Manitoba Hydro was in no way ready to proceed with either the CRD or the LWR projects. In every possible aspect, the engineering work was at a pre-feasibility level at best. By delaying the CRD and LWR projects, both large projects could be studied in much greater detail for possible investment at some later unspecified date.

³ In 1978/79, the average cost of generation was 14.45 mills per kWh (17 mills for Long Spruce and 26 mills for Jenpeg). Suggested that the rate of return on investment should be 15% in 1978/79 (requiring 25 mills for Long Spruce and 40 mills for Jenpeg). Hydro predicted 12-16 mills for the period 1979-80 to 1985-86.

⁴ This letter of intent was formulated at a time when it seemed that a high-level CRD project was inevitable. The high level CRD proposal was formally rejected in 1969.

Notwithstanding these issues, both the Manitoba Hydro Board and the Government of Manitoba decided in 1970 to develop a low-level CRD and LWR projects.

The Commission further concluded that the decision to begin with LWR ahead of a low-level CRD was not consistent with available information or the majority of opinions of engineers (both with and outside Manitoba Hydro) nor was it consistent with the mandate to promote *economy and efficiency*.

According to the Commission, a number of systemic obstacles interfered with the decision-making process in terms of development sequencing. For instance:

- LWR and CRD projects were actively preferred by David Cass-Beggs, Chairman and CEO (it was noted that the corporate culture/code within Manitoba Hydro was such that the Chairman and CEO had unbalanced control/influence)
- Cass-Beggs manipulated information to ensure the implementation of his preferred development sequence (other board members were misled)
 - it was reported that the Board had reason to believe that project feasibility and construction cost estimates were at a more advanced/certain level
 - Cass-Beggs proceeded even though Manitoba Hydro was warned on numerous occasions by a number of its own engineer consultants on the need for further studies before any decisions can be made
- The relationship between the Chairman and the Minister responsible for Hydro was deemed to be inappropriate with Hydro's Chairman seen as the 'voice of Government' –there was also a general lack of professional independence and autonomy of Board members

Furthermore, the Commission concluded that Manitoba Hydro failed to ensure *economy and efficiency* for its reluctance to initiate an advanced study program for a number of relatively smaller Burntwood generation projects. According to the Commission, Manitoba Hydro could have postponed LWR beyond 1978 had it decided on a long-term development scheme that included the CRD, less capital intensive Burntwood River generation projects, as well as thermo-generation and import/export arrangements.

- There was more justification to develop the CRD ahead of the LWR with potential to delay LWR for some undetermined future date –however, Cass-Beggs was persistent in securing a development sequence that began with LWR followed by CRD
- There was a lack of clear division of responsibilities between the Government of Manitoba and Manitoba Hydro as well as a lack of a clear accountability framework

Summary of Recommendations

A summary of the Commission's 51 recommendations is provided in the below chart:

| | Summary of Recommendations |
|---|---|
| Project Design & Implementation (5) | Need for greater integration between all stages, minimum due diligence prior to development, enhanced measures for costing, tendering, and contracting |
| Generation Expansion Planning (8) | Need for an enhanced planning regiment that includes improved techniques/systems for modeling and simulation, regular assessment of alternatives, justification for key assumptions and parameters, and measures for reporting to government |
| Socioeconomic & Environmental Aspects (3) | Need for in-house expertise in EA, increased corporate commitment and proactive approach to EA, and a need for greater integration of EA in projects/programs |
| Financial Planning (4) | Need for improved financial planning capacity, government-established long-term financial objectives, and a system of regular alternative financial policies/targets |
| System Operations (9) | Need for updates models & methodologies, assessment of MAPP membership, development of a specific marketing department, review of export opportunities, adopt consistent hydrologic database, measures for verifying system reliability, etc. |
| Accounting & Financial Aspects (6) | Need for enhanced policies and practices in 6 specific areas |
| Management (5) | Need for increased competence in finance and utility economics, increased in-house legal capacity, greater and consistent use of staff expertise, and formal processes providing appropriate consultation/accountability to government |
| Relationship: Government & Hydro (11) | Need for fixed contract terms for Chairman, formal procedures for government policy directives, expanded board without government staff/MLA or Hydro staff, higher standard of accountability for directors, defined roles and responsibilities for Board and senior management, etc. |