

MANITOBA
THE PUBLIC UTILITIES BOARD ACT
THE MANITOBA HYDRO ACT
THE CROWN CORPORATIONS PUBLIC
REVIEW AND ACCOUNTABILITY ACT

Board Order 143/04

November 18, 2004

Before: Graham F. J. Lane, C.A., Chairman
Robert Mayer, Q.C., Vice-Chair
Leonard Evans, B.A., M.A., LL.D. (Hon.)

**AN ORDER SETTING OUT FURTHER REASONS FOR DECISIONS IN
BOARD ORDER 101/04 IN RESPECT OF AN APPLICATION
BY MANITOBA HYDRO FOR INCREASED RATES AND OTHER
MATTERS**

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1.0 Introduction

On January 29, 2004, Manitoba Hydro (“MH” or the “Corporation”) applied to The Public Utilities Board (“the Board”) for approval of rate schedules incorporating average increases in General Consumers’ rates of 3.0% effective April 1, 2004 and 2.5% effective April 1, 2005.

If MH’s requested rate increases had been approved by the Board and implemented August 1, 2004, and assuming the additional requested revenue for fiscal 2005 was to be recovered over the remaining eight months to March 31, 2005, the average ‘as billed’ rate for General Consumers would have increased by approximately 4.3% for the remainder of the 2005 fiscal year.

Increases to the residential class’ billed rate as of August 1, 2004 would have been approximately 5.5%

The Board conducted a public review process that included an oral hearing on June 14th to June 16th, June 21st to 23rd, June 28th to 30th and July 5th, 8th, 15th and 16th of 2004.

During the hearing, the Board heard and received considerable testimony and evidence concerning the financial and operating aspects of the Corporation. The Intervenors shared the Corporation’s view that the financial health of the Corporation is important. Sharing this view, the Board determined and issued its direction arising out of the hearing with some dispatch, providing summary reasons for its decision to approve rate changes at variance to those sought by the Corporation.

The 5% rate increase directed by the Board was and is supported by the fact of the drought experienced in full force during MH’s 2003/04 fiscal year. The drought drastically reduced MH’s retained earnings. This account had been built up over the years primarily through net export revenues, which provided for below cost rates for all customer classes. All customer classes benefited from net export revenue, and all classes had to share in the rate increase ordered to start the replenishing of MH’s retained earnings.

The drought was not a “cost” that was caused by only one customer class; hence, all customer classes were afforded the same treatment and received a 5% rate increase. MH’s “Cost of Service” methodology, which seeks to establish differential rates by customer class, is in a state of flux. It could not be relied upon for the purpose of the recent 5% rate increase. Recent issues related to the methodology require the Board’s further consideration, and the Board sought information related thereto from the Corporation in directing the 5% rate increase.

Accordingly, the Board issued Order 101/04, dated July 28, 2004, which should be read in conjunction with this Order. Among other things, Order 101/04 directed MH to file for final approval a revised rate schedule to be effective August 1, 2004 reflecting an annual revenue requirement increase of 5% for all customer classes. Order 103/04 subsequently approved these rate increases.

Order 101/04 also provided two additional but conditional rate increases of 2.25% each, for April 1 and October 1, 2005. Order 101/04 indicated that the Board would issue a subsequent Order, which would provide a more extensive review of the reasons for the Board’s decision to provide both firm and conditional rate increases, and other directives ordered by the Board. This is that Order.

Following the issuance of Order 101/04, and prior to the Board issuing this Order, CAC/MSOS and MIPUG each filed a Notice of Motion for Leave to Appeal Orders 101/04 and 103/04. As of the date of this Order, CAC/MSOS and MIPUG’s motions have not been heard. The Board will oppose the Motions for Leave to Appeal, and if granted, will oppose the subsequent Appeal. The issues addressed at the hearing involved very complex matters, requiring careful consideration. It is the Board’s expectation that this Order will provide interested parties, including the Intervenors, a clearer understanding of the substantial evidentiary support for the Board’s decisions in Order 101/04.

This Order also addresses a request by a presenter, Mr. Ciekiewicz, to review and vary Order 101/04 and 103/04, and denies the request for the reasons set out herein.

2.0 Background

2.1 History

MH last appeared before the Board with respect to requested rate increases in 1996. After a public hearing process, the Board issued an order approving increases in General Consumers Rates averaging 1.5% effective April 1, 1996 and a further 1.3% effective April 1, 1997. General Consumer Rates did not increase from that date until the Board's most recent Order providing for a 5% increase effective August 1, 2004.

Following the 1996 GRA, MH next appeared before the Board in 2002 in respect of the Corporation's Status Update Filing. On February 3, 2003, the Board issued Order 7/03 which dealt with matters arising from the Status Update Filing. Order 7/03 also included a requirement for MH to file a revised Schedule of Rates. The new schedule of rates was to be effective April 1, 2003, and reflect rate decreases of 2.0% for the General Service Large Classes served at greater than 30 kV and a 1.0% rate decrease to the General Service Small Class, as well as other directives.

The Board stated that these directional rate decreases, based on the Board approved Cost of Service methodology, were needed to address inequities between rate classes which had been outstanding for more than 10 years.

In response to Order 7/03 and in particular the Board's direction to reduce rates for the General Service Large Classes, on March 19, 2003 MH filed an application with the Board to vary its Order pursuant to subsection 44(3) of *The Public Utilities Board Act*.

MH advised the Board that its financial position had worsened since the 2002 hearing, justifying its request to leave the rates unchanged. On March 31, 2003, the Board issued Order 51/03 which deferred the implementation of the Board's directives in Order 7/03 awaiting a further

Order of the Board. Subsequently, the Board issued Order 154/03 on October 31, 2003, which modified certain directives in Order 7/03 but upheld the decision regarding rate decreases.

The rate decreases resulted in a reduction in Annual General Consumer Revenue of approximately \$6.5 million. Order 01/04 approved the rates flowing from Order 154/03.

At the time the Board considered MH's application to vary its Order providing for rate decreases, the Board considered MH's fiscal 2002 integrated financial forecast ("IFF02-1"). This forecast projected net income of approximately \$70 million for each of the years 2003 and 2004. In actuality, the Corporation's annual reports indicated net income for the electric operations for 2003 of \$77 million, and a loss in 2004 of \$428 million. In summary, IFF02-1 projected aggregate net income for the two fiscal years ended March 31, 2004 of \$140 million, where, in actuality, a loss of \$351 million occurred, a negative variance of \$491 million.

2.2 Previous Board Directives

Order 7/03 and Order 54/03 contained a number of Board directives. The following directives remain outstanding as of the date of this Order:

- MH shall file a study to quantify specific reserve provisions required to cover the major risks and contingencies faced by MH;
- MH shall file a study on the merits of implementing an inverted rate structure for all customer classes by no later than December 31, 2004;
- MH shall file a study which considers time of use rates for General Service classes based on a reasonable weekly, daily and hourly basis by December 31, 2004;
- MH shall re-examine the current level of Demand Side Management ("DSM") programs and pricing strategies to encourage conservation, develop a program with more aggressive

targets, and report to the Board by no later than December 31, 2003. MH now expects its Power Resource Plan to be completed by the end of 2004; and

- MH shall consider the use of wind power in remote diesel electric communities and file a report with the Board by no later than December 31, 2004.

In addition to these outstanding directives, the following additional directives were given by the Board to MH in Order 101/04:

1. MH immediately file for final Board approval a revised schedule of rates to be effective August 1, 2004, including forecasts revenue impacts reflecting a 5% increase for all customer classes. These rates were subsequent filed and approved by the Board in Order 103/04.
2. MH file the following information, by no later than January 31, 2005, for review by the Board with respect to a conditional rate increase for April 1, 2005:
 - (a) An update of its forecast for fiscal 2004/05 and 2005/06; and
 - (b) Its second and third quarter financial statements for fiscal 2004/05;
3. MH file its audited financial statements for 2004/05, updated 2005/06 forecast and subsequent years through to and including fiscal 2013/14 and its first quarter 2005/06 financial statements by July 31, 2005, for review by the Board with respect to a conditional rate increase for October 1, 2005;
4. MH file by no later than January 31, 2005, three separate Cost of Service Study (“COSS”) models to reflect;
 - (a) MH’s existing methodology;
 - (b) The implementation of the NERA recommendations; and
 - (c) MH’s preferred approach and methodology, including supporting rationale;

5. MH shall allocate the cost of uniform residential rates as a first charge on net export revenue, create an export class set out above, and file an analysis of the impact of allocating less expensive generation costs to domestic classes, with higher cost generation being allocated to domestic and export customers as suggested by TREE/RCM;
6. MH file the following studies by no later than January 31, 2005:
 - A proposal to utilize the Zone of Reasonableness concept, based on an amended COSS, moving all customer classes to “unity” (allocated revenue equals allocated expenses) within five to seven years;
 - A study of MH’s response to the 2002-2004 drought, with recommendations by an outside and independent expert;
 - MH’s revised risk management strategy that reflects the quantification of risks both separate and in combination;
 - A report on MH’s insurance portfolio;
 - A study of the implications of internally restricting retained earnings as a form of self-insurance reserve and rate stabilization fund, to restrict any future dividend payment until the 75:25 debt to equity ratio has been achieved and/or exceeded;
 - A report on the concept of the Board reviewing any future proposed changes to water rental and capital tax rates;
 - A report on the implications of returning the Interest Coverage financial indicator to a target of 1.2; and
 - A report on the appropriateness of capitalizing all DSM expenditures, whether they represent projects that are implemented and whether the projects achieve their targets, and consider whether an amortization period of 15 years is optimal with respect to DSM and planning studies, with options.
7. The interim ex-parte Orders included as Schedule A to Order 101/04 were approved as final.
8. MH’s request to extend the Terms and Conditions of the Surplus Energy Program until March 31, 2007, as proposed and amended by MH, was approved.

The Board will deal with these directives in future proceedings once MH has filed the information and reports with the Board.

3.0 Operating Results and Financial Projections

3.1 MH's Forecasting Process

MH uses four main forecasting tools:

1. The Integrated Financial Forecast (“IFF”) projects MH’s financial results over a 10-year period and includes an income statement, balance sheet and statement of cash flow;
2. The System Load Forecast projects energy and capacity requirements for electricity in Manitoba over the next 20 years;
3. The Power Resource Plan forecasts MH’s supply capabilities under dependable flow conditions; and
4. The Capital Expenditures Forecast includes the planned capital expenditures for a 10 year period including safety requirements, supply side enhancements and major generation and transmission projects.

3.2 Integrated Financial Forecast (IFF)

The IFF is MH’s primary planning document for projecting the future financial results of the Corporation, and is drawn upon in recommending any proposed rate changes the Corporation deems advisable towards achieving its financial targets and objectives. IFF03-1, filed in support of the most recent application, describes the projected financial results and gives MH’s view of its long-term financial direction.

MH noted that forecasted water flows for the first year of IFF 03-1 were based on existing storage levels and recent historic water flows. During the second year of the forecast, water flows are expected to track toward median levels. Longer range planning beyond year two is based on 86 annual historic flow conditions, which include both years of drought and flood conditions.

MH reported that it does not directly consider the potential effects of forecasted long-term changes to weather in projecting revenues and costs. However, MH does perform sensitivity analyses to determine the potential impact of possible adverse effects that may result from climate change. Actual results and IFF03-1 forecasts are summarized and compared to IFF01-1 below. IFF01-1 was the forecast considered by the Board at the 2002 Status Update Proceeding.

Statement of Operations & Retained Earnings (\$ millions)	Actual		IFF03-1		
	2002	2003	2004	2005	2006
Revenue					
Domestic	797	891	910	924	930
Requested rate increase				28	51
Export	588	463	394	451	430
Total Revenue	1,385	1,354	1,304	1,403	1,411
Expenses					
Finance	445	441	472	505	529
Depreciation	239	262	274	288	298
Operation & Administrative	248	272	304	307	309
Water Rentals	113	103	79	104	99
Tax Expense	43	48	50	53	54
Fuel & Power Purchases	71	151	480	106	91
Total Expense	1,159	1,277	1,659	1,363	1,380
Net Income (IFF03-1)	226	77	(355) ¹	40	31
Net Income (IFF01-1)	220	110	91	58	69
Annual Difference	6	(33)	(446)	(18)	(38)
Retained Earnings (IFF03-1)	1,058	1135	759	799	830
Retained Earnings (IFF01-1)	1,151	1186	1,214	1,273	1,341
Cumulative Difference	(93)	(51)	(455)	(473)	(511)

MH's projected net income for the 5 year period shown above is \$529 million lower in IFF03-1 than the aggregate result for the period forecast in IFF01-1. This very large negative variance is primarily due to the drought that began in fiscal 2003 and continued through fiscal 2004.

MH has also increased its "projected" capital expenditures, furthered its plans to move forward with the Wuskwatim Generation and Transmission Projects, and acquired and integrated

¹ During the hearing MH advised that the revised projected net income for 2004 was in the range of a \$400 million to \$430 million loss.

Winnipeg Hydro (“WH”). Each of these events have impacted the forecasted operating results provided in IFF03-1.

Actual net income for fiscal 2003 of \$77 million was \$33 million less than the net income of \$110 million forecasted in IFF01-1. Net income for fiscal 2004 was forecast in the Corporation’s Application to be a loss of \$355 million, some \$446 million less than the net income of \$91 million forecast in IFF01-1. Subsequently during the hearing, MH revised its loss projection for 2004, and indicated that the electric operations would post a loss in the range of \$400 to \$430 million. In actuality, the Corporation posted a loss of \$428 million for 2004. Net income results for 2005 and 2006, as projected by MH, are also expected to be lower than forecast in IFF01-1 by \$18 million and \$38 million respectively. Overall, a significant deterioration in the Corporation’s actual and forecast results confronted the parties to the recent hearing.

MH’s IFF03-1 projection includes forecast average rate increases of 3% in fiscal 2004 and 2.5% for fiscal 2005, as requested in MH’s Application. While MH included projections of additional rate increases of 2.5% for each of the years 2006 to 2014 in IFF03-1, MH’s rate application only sought approvals for fiscal 2005 and 2006.

3.3 Impact of Drought

While there was above average precipitation in the spring and early summer of 2002, insufficient runoff took place to both fill MH’s storage reservoir system of lakes and rivers and maintain high outputs of hydraulic generation. Water supplies over some portions of the Churchill/Nelson River basin fell in the fall and winter of 2002/03 to lows that, according to MH, were expected to occur only once in every 50 years. Going into the winter of 2003/04, reservoirs were at or near historic lows.

While the entire watershed was not in a similar drought condition, the overall water storage situation was in a state reportedly experienced only once before in the last 30 years. This reduced MH's hydraulic generating output in 2003/04 to approximately 18,500 GW.h, which was approximately 35% below its combined total of committed firm domestic load of approximately 22,000 GW.h and firm export load of 6,000 GW.h. (To meet its firm export commitments, each year MH has to generate or purchase power in excess of Manitoba domestic needs).

With generating output well below domestic and export requirements, MH had to purchase energy, and purchased approximately 10,000 GW.h of energy at a time of unfavourably high wholesale energy prices.

The change from being a substantial net exporter of electricity to the condition of a net importer at a time of high energy prices had a dramatic and negative impact on MH's financial situation. The drought and high wholesale energy prices led to the most significant operating loss ever experienced by the Corporation. The loss reversed the Corporation's progress toward the achievement of its financial targets.

Today, extra-provincial revenues have a greater prominence within MH, representing an increasingly significant portion of the Corporation's forecast revenues. Risks related to declines in net export revenue have also increased substantially, as evidenced by MH's loss of \$428 million in fiscal 2004, a loss driven by a drought and an obligation to import power to meet export commitments. It is now clear that MH has a significant dependence on water flow conditions and net export revenue, to sustain low electricity rates in Manitoba. The impact of low water flows combined with high wholesale energy prices meant significant deterioration of the Corporation's fiscal strength. Prior to the drought, the assumption was that high wholesale energy prices would favour the Corporation.

At the hearing, MH opined that the most recent drought was now over, and that it expected to meet its net income projection for fiscal 2005. However, the Corporation reported that it had lost \$31 million in the first quarter of fiscal 2005. To meet its 2005 net income projection, MH will have to recover the losses of the first quarter and achieve net income of a further \$40 million in the last three quarters of fiscal 2005.

MH also indicated that a repeat of the worst 5-year drought on record, which was worse than the recent drought, combined with higher purchased energy prices, could cost the Corporation at least \$2 billion plus financing charges estimated at a further \$200 million. This \$2.2 billion figure dwarfs the costs of the most recent drought and exceeds, by a wide margin, MH's consolidated previous estimates of a similar drought. Previously, MH had forecast the overall cost of a five-year drought to be in the range of \$1.1 billion. This change in the projected net cost consequence of the "worst case" drought scenario starkly illustrates the increased risk that MH is now exposed to by droughts and export market obligations and pricing.

With its losses in 2003/04, MH's retained earnings for its electric operations fell from \$1.135 billion as of March 31, 2003 to \$707 million as of March 31, 2004. MH's peak retained earnings level was \$1.302 billion, as of March 31, 2002, approximately twice that of the current level.

The current level of retained earnings is well below MH's most recent assessment of the cost for a five-year drought, indicated as being in the range of \$2.2 billion. It is important to note that MH's current retained earnings is not represented by cash or liquid investments.

MH maintained at the hearing that there is no guarantee that unfavourable energy pricing, as was recently experienced in fiscal 2004, or low precipitation levels won't occur again in the future, leading to the risk of additional financial losses.

Based solely on Lake Winnipeg inflow data supplied by MH, it would appear that droughts of the magnitude experienced most recently occurred twice in the last 30 years, and perhaps six times in the last 90 years. As such, it is conceivable that the recent drought scenario could repeat itself every 15 years on average, and that significant financial losses due to export revenue deficiencies and higher priced imports could occur more frequently in the future than they have in the past. It is worthy of note that MH suggested that far worse droughts than have occurred in its corporate history have occurred in Manitoba in the years before its records began.

In the midst of the latest drought, the Corporation acted to protect Manitoba ratepayers once it fully apprehended the seriousness of the situation. In the fall of 2003, MH engaged in forward purchases of imported power and buybacks of contracted export sales, and by so doing, MH prevented the fiscal 2004 loss from being higher than it was.

Notwithstanding the highly unfavourable experience of fiscal 2004, and the risks that lie with exports and low water levels, the evidence is that export sales over the last decade have provided significant benefits for MH and its ratepayers.

Net export profits, that is, export sales less related water rental payments and energy imports, have supplemented domestic revenue, which has allowed MH to maintain domestic rates for grid customers below its overall production and distribution costs. In short, MH's annual revenue requirement has not been met by only domestic sales revenue. Net export revenue fills in the breach, and allows for lower domestic rates.

3.4 Acquisition of Winnipeg Hydro ("WH")

MH acquired the assets and business of WH on September 3, 2002. The acquisition allowed MH to expand its monopoly position in Manitoba, take control over WH's generating stations and capacity and have the opportunity to achieve synergies. WH had approximately 550 employees and served about 94,000 customers, located primarily in the older parts of the City of Winnipeg.

The purchase agreement requires MH to make payments to the City of Winnipeg of \$25 million per annum for five years, then \$20 million for four years, and \$16 million annually thereafter in perpetuity. MH recorded the debts it assumed and the present value of this stream of future payments in its records as a liability, balanced against the assets it acquired.

Goodwill is the difference between the purchase price and the deemed fair market value of the tangible and intangible assets acquired. As a result of the purchase, MH recorded \$46 million of goodwill on its financial statements. Generally accepted accounting principles require MH to perform an impairment test, an exercise that determines whether goodwill as recorded should be reduced with a corresponding charge against income and retained earnings. The Board has concerns regarding the value of this goodwill to future generations of consumers. However, the impairment test at March 31, 2004, accepted by MH's external auditors, concluded that the value to the overall electricity operations of MH, not just those of the former WH, was not impaired. This matter may be reviewed further by the Board in future proceedings.

In addition to the payment terms reported above, and outside of the factors involved in the impairment test, the purchase agreement obligated MH to:

- (a) Provide \$800,000 annually for 10 years in payments or Power Smart savings for the City of Winnipeg;
- (b) Construct a new office building; and
- (c) Guaranteed lay off and wage benefit protection for former WH employees.

Forecast payments by MH to the City of Winnipeg, and MH's projected expenses related to DSM development for the City of Winnipeg, are as follows:

Fiscal Year	Payments to City of Winnipeg	DSM Projected Expenses
2003 – actual	\$ 800,000	\$ 234,837
2004 – actual	799,393	674,296
2005 – forecast	732,090	6,041,476
2006 – forecast	337,781	5,451,285
Total to 2006	\$2,669,264	\$12,401,894

MH indicated that the benefits arising out of these DSM programs will accrue to MH as well as the City of Winnipeg. MH will be able to export the surplus power, extend Power Smart programs into the former WH territory, streamline emergency programs, and achieve savings and efficiencies with respect to billing, metering and collection processes. In short, MH anticipates further DSM and operational synergy savings.

The purchase agreement commits MH to construct a new head office building in downtown Winnipeg. MH's Capital Expenditures Forecast ("CEF03-1") includes a projection of \$75 million for construction of the new office tower, though this estimate was characterized by MH as a 'place-marker'. The final project cost could not be quantified at this time. MH projects operating savings to arise through the consolidation of its Winnipeg operations once the new

building is complete. MH chose not to include the cost implications of the obligation to construct a new head office as a factor in the goodwill impairment test.

Overall, MH indicated that the WH acquisition was revenue neutral, in that the expected future revenues met or exceeded expected future costs. This projection does not consider the impacts of the required DSM expenditures, the costs of the new head office building, or any major capital upgrades relating to former WH generating stations.

The acquisition of WH will have a short term and longer term negative impact on MH's financial targets. The acquisition decreased MH's debt equity ratio, initially by 0.5% and forecast to grow to over 2% by 2012/13. The acquisition is forecast to delay MH from reaching its debt to equity target of 75:25 by at least by one year. MH's interest coverage ratio was also decreased by 0.04, and the capital coverage ratio is forecast to decrease by 0.25 by 2012/13 as a result of the acquisition of WH.

MH's CEF03-1 also includes a forecast requirement of \$421 million to improve and upgrade Point Du Bois Generation Station, a former WH generation station. MH indicated these costs may be self-financed through increased export sales made possible by enhanced generating capacity.

3.5 Revenue

MH estimates that total revenue for fiscal 2005 and 2006 will be approximately \$1.4 billion annually, which would be approximately \$100 million greater than the \$1.3 billion earned in fiscal 2004. Generally, approximately 60% to 70% of MH's total revenue is earned from domestic customers, with the balance primarily earned from exports.

Domestic revenue is expected to grow from \$797 million in fiscal 2002 to \$930 million by 2006, not including the effect of any rate increases. Export revenue is projected to be \$451 million and \$430 million in fiscal 2005 and 2006 respectively, which compares to actual export revenue

earned in 2002, 2003, and 2004 of \$588 million, \$463 million and \$351 million respectively. In 2004, the cost of fuel and power purchased was \$480 million, exceeding that of MH's exports for the first time in MH's history.

3.6 Extra Provincial Revenue

In 1997, *The Manitoba Hydro Act* was amended to allow MH to actively market and supply power outside the province. MH is a member of the Mid-Continent Area Power Pool ("MAPP"), an electric reliability region and power marketing pool based in St. Paul, Minnesota. MH also has a Coordination Agreement with the Midwest Independent System Operator ("MISO"), which is a Regional Transmission Operator ("RTO") serving 35 states. MISO coordinates transmission tariff pricing and the purchase of certain reliability and transmission tariff administration services. The main U.S. transmission grid is under the oversight of MISO, which is responsible for operational reliability. Under these arrangements MH has access to more export customers, thereby potentially increasing the price that MH can attain for the power.

MH maintains a mixed portfolio of export sales. These export sales include long-term firm contracts as well as short-term opportunity sales. Opportunity sales are dependent upon water flows and can vary greatly from year-to-year. MH uses the SPLASH economic model to forecast flow conditions based on historical conditions adjusted for stream flow reductions on the Saskatchewan River, and has used a combination of four independent energy consultant reports to forecast energy prices.

MH's approach to marketing export energy includes purchasing low price off-peak energy for resale in high price on-peak periods generally at a significant profit margin. This practice allows MH to maximize its use of available hydraulic energy and enhance the profitability of the export operations. Unless there is a shortage of hydraulic energy, as occurred in the 2003/04 drought, this trading practice is expected to produce positive results for the Corporation.

MH's extra provincial revenue from 1996 to 2006 was and is forecast as follows:

	Total Revenue \$millions	Gross Export Revenue \$millions	Percentage of MH Total Revenue %	Export Consumption GW.h	Average Sale Price* ¢/kW.h
1996 Actual	986	246	25%	9,659	2.5468¢
1997 Actual	1,024	268	26%	11,499	2.3306¢
1998 Actual	1,041	297	29%	13,567	2.1891¢
1999 Actual	1,080	326	30%	11,404	2.8586¢
2000 Actual	1,122	376	34%	10,868	3.4597¢
2001 Actual	1,269	480	38%	12,065	3.9785¢
2002 Actual	1,385	588	42%	12,091	4.8631¢
2003 Actual	1,354	463	34%	9,463	4.8927¢
2004 Actual	1,287	351	27%	6,900	5.0869¢
2005 Forecast	1,403	451	32%	8,920	5.0561¢
2006 Forecast	1,411	430	30%	8,956	4.8013¢

* Includes demand based charges

MH forecast that net extra provincial sales results can range from a loss of \$109 million under dependable flow conditions to an income of \$393 million under high water flow conditions based on expected electricity prices in 2004/05. In 2003/04, MH experienced low water flows and high energy import prices, which was portrayed at the hearing as the "perfect storm." Net export revenue is export sales net of all related fuel and power purchases and water rentals incurred by the electric operations. Net export revenue does not account for any allocation of generation, transmission or operating expenses.

As export sales contribute approximately a third of total electricity revenues, MH's largest risk is drought. Extreme high flow years can yield net export income, as defined above, exceeding \$200 million per year, but extreme low flow years may result in losses exceeding \$600 million per year by the end of the forecast period.

An additional but major component of the drought risk is the high cost of imported energy that can occur when MH becomes a net importer of significant quantities of energy. Monthly average import prices paid by MH in 2004 reached 6¢/kW.h, and, at times, exceeded the monthly average export prices.

MH's largest export customer is Northern States Power ("NSP"). NSP's 500 MW Extension System Participation firm sale for the years 2005 to 2015 was approved by both the National Energy Board (Canada) and the Minnesota Public Utilities Commission, subject to resolution of an outstanding appeal. This sale agreement is anticipated to produce \$1.5 billion in revenue, before costs, for MH over the 10-year life of the contract.

MH is also currently in discussion with the Province of Ontario regarding MH providing energy to the Ontario marketplace. An arrangement with the Province of Ontario would likely involve advancement of the construction of the Conawapa hydro-electric generation station and related transmission facilities to connect to the Eastern-Ontario grid. If the project proceeds, the construction would involve substantial investments and borrowings.

3.7 Staffing

MH measures its staff complement using equivalent full-time employee levels ("EFT"). EFT's are calculated by dividing the total number of paid hours for the fiscal year by the standard hours of work per employee for that same period. MH indicated the following EFT levels:

Year	EFT's Number	% Increase
2001/02 - Actual	5,172	-
2002/03 - Actual	5,553	7.4%
2003/04 - Forecast	5,941	7.0%
2004/05 - Forecast	5,996	1.0%
2005/06 Onward - Forecast	Approx. 6,000	-

As a result of the acquisition of WH in 2003, the EFT levels for 2003 include WH EFT's for a seven-month period. EFT's for fiscal 2004 to 2006 include approximately 570 former WH employees. MH has budgeted to add 800 additional staff members between 2001 and 2005, including approximately 24 additional staff due to increases in extra provincial activities.

MH estimated that the allocation of corporate time to DSM activities represents approximately 60 full-time person years. This estimate does not include provisions for those activities related to daily customer service communications of field and operations staff in the 73 community based offices located throughout the Province.

3.8 Cost Allocation and Control

MH has fully integrated its electric and gas operations, and uses a 'full absorption' methodology to allocate costs to the different operating segments and to capitalize costs. Corporate overhead is added to activity charges at a standard percentage rate and charged to electric and gas operations along with the activity charges.

MH indicated that its cost control procedures encompass monitoring and process controls, with its primary tool being departmental budgets.

Productivity improvements are embedded both explicitly and implicitly in the forecast through the following measures:

1. MH's wage and salary forecasts are reduced each year by a productivity factor ranging from 1-2%. These reductions recognize that productivity should increase as employees gain more skills and experience.
2. General reductions are agreed to at the company level. These reductions are not allocated specifically to operating departments. However, steps are taken throughout the company to

achieve these reductions through either cost and program changes or productivity improvements.

3. General or specific cost reductions are made for productivity improvements that are expected when efficiency-related process changes, such as computer system enhancements, are made.

The achievement of savings is assessed through the monthly reporting and variance analysis process. In addition to the budgeting process, MH also has purchasing authorization guidelines, signing authority guidelines, approval of credit card and expense report transactions, invoice and purchase order controls, segregation of duties, and regular review of overhead rates and other allocation policies.

MH indicated that it will limit future growth in operating costs, challenge all capital expenditure proposals to ensure that they are necessary, and engage in an ongoing planning process to take advantage of opportunities while keeping risk manageable.

3.9 Operating, Maintenance and Administrative Costs (“OM&A”)

Over 74% of operating and administration costs relate to labour costs, including employee benefits. The actual and forecast operating and administrative expenses for fiscal years 2002 to 2006 are as follows:

Operating and Administrative Costs in \$000's	2001/02 Actual	2002/03 Actual	2003/04 Forecast	2004/05 Forecast	2005/06 Forecast
Labour					
Wages, Salaries and Overtime	278,952	310,285	337,827	347,287	354,233
Employee Benefits	54,364	59,677	73,796	74,518	76,008
	<u>333,316</u>	<u>369,962</u>	<u>411,623</u>	<u>421,805</u>	<u>430,241</u>
Travel	22,709	22,960	25,458	25,962	26,481
Motor Vehicle	15,277	15,905	16,486	16,890	17,228
Materials & Tools	24,043	22,739	25,153	24,981	25,481
Consulting & Professional Fees	8,952	8,933	10,778	9,064	9,245
Construction and Maintenance Services	10,618	11,095	12,076	12,710	12,964
Building & Property Services	18,414	18,722	20,180	20,655	21,068
Equipment Maintenance	6,618	8,370	9,484	9,722	9,916
Consumer Services	5,310	4,107	5,180	5,217	5,321
Computer Services	4,158	4,408	4,321	4,165	4,248
Collections	3,534	3,453	4,928	5,015	5,115
Customer & Public Relations	4,695	4,697	4,851	4,922	5,020
Office & Administration	14,750	15,048	15,929	16,084	16,406
Communication Systems	2,007	2,356	2,377	2,402	2,450
Research & Development Costs	3,019	3,462	3,546	3,537	3,608
Miscellaneous Expense	1,207	1,334	2,049	1,875	1,913
Contingency	-	-	(9,768)	(12,759)	(16,833)
Operating Expense Recovery	(15,550)	(13,485)	(14,215)	(13,736)	(14,011)
Total Costs	<u>463,077</u>	<u>504,066</u>	<u>550,436</u>	<u>558,511</u>	<u>565,861</u>
Less: Charged to Centra	<u>53,213</u>	<u>56,316</u>	<u>54,582</u>	<u>55,702</u>	<u>56,816</u>
	409,864	447,750	495,854	502,809	509,045
Less: Capitalized Overhead	<u>167,679</u>	<u>184,744</u>	<u>192,304</u>	<u>195,871</u>	<u>199,788</u>
Operating and Administrative Costs Attributable to Electric Operations	<u>242,185</u>	<u>263,006</u>	<u>303,550</u>	<u>306,938</u>	<u>309,257</u>

Over the period from 2002 to 2006, MH's OM&A costs are expected to increase by \$67 million, with approximately \$33 million representing OM&A costs related to the WH acquisition.

MH indicated that productivity savings and cost constraints are demonstrated by the average 1.7% annual increase in OM&A over the last five years. While MH indicated that a direct comparison to other utilities may not be possible, Hydro Quebec and BC Hydro appear to have experienced annual increases in OM & A costs of 5.7% and 5.0% respectively, for the same period. Different capitalization and amortization policies may distort the comparison with Hydro Quebec and BC Hydro.

MH acknowledged that there were inconsistencies in some of the variance analysis information filed with respect to OM&A. MH requested that no adjustment be made to the requested rate increases because in MH's view, the total OM&A budget, when considered on an overall basis, was still appropriate and reasonable.

3.9.1 OM&A Costs per Customer

MH OM&A cost per customer has increased from \$516 in 1999 to \$560 in 2004. While MH indicated that it may not be appropriate to directly compare to other utilities, based on annual report information, Hydro Quebec's OM&A cost per customer was \$616 and BC Hydro's cost per customer was \$375 in 2004. As indicated above, the annual allocation of OM&A expenses to gas operations and to capitalized expenditures may distort the comparison with Hydro Quebec and BC Hydro.

MH's Corporate Strategic Plan for 2003/2004 indicated that MH's target for OM&A cost per customer was \$600, while its projected cost per customer for fiscal 2005 and 2006 was \$606 and \$607 respectively in real dollars, and \$581 and \$571 in 2002/03 constant dollars. MH indicated that although this measure is tracked, it should not be considered in isolation of other performance measures and is not used to "drive" the budget process.

3.9.2 Capitalization of Operating and Administration Expenditures

MH segregates costs among operating activities, which are a direct charge against the operations for the year, and capital activities, which are charged to future periods and amortized over the future life of a respective project. Operating and administrative expenses were approximately \$496 million in 2004 before capitalized activities and overhead. MH indicated that approximately \$192 million would be capitalized activities and overhead. The amounts are

consistent with the 2002 data the Board reviewed at the Status Update hearing, and the Corporation's audited financial statements do not indicate any change in accounting policies.

3.10 Payments to the Province

As a Crown Corporation, MH does not pay income tax, provincial sales tax or Goods and Services Tax. However, MH does pay Provincial Corporations Capital Tax and payroll tax. MH also pays a number of other fees to the Province of Manitoba, including water rentals, a debt guarantee fee and a sinking fund administration fee. Pursuant to legislative requirements, MH also made a special payment to the Province in 2003 and 2004. Payments to the Province are summarized as follows:

Payments to the Province (\$ millions)	Actual		IFF03-1		
	2002	2003	2004	2005	2006
Large Corporation Tax	30	33	35	37	38
Payroll Tax	5	6	6	7	7
Water Rentals	107	95	70	95	96
Debt Guarantee Fee	68	70	70	72	73
Sinking Fund Admin Fee	1	1	1	1	1
Special Payment		200	4		
Total Payments	211	405	186	212	215
Percentage of Gross Revenue	15.6%	30.3%	14.3%	15.0%	15.2%

Water rentals relate to the use of provincial water resources, and are paid on a monthly basis to the Province based the greater of:

- (a) Energy produced, at a current rate of \$3.341 per MW.h, or
- (b) The installed capacity of the facility at a rate of \$8.13 per installed horsepower.

On April 1, 2001, the water rental rate increased from \$1.6285 per MW.h to \$3.341 per MW.h, and has remained unchanged since then.

The Provincial Debt Guarantee Fee is 0.95% of the sum of MH Bonds, Provincial Advances to MH and provincial short-term promissory notes outstanding to guarantee MH long-term debt. This fee was increased from 0.5% to 0.95% over the period from April 1, 2000 to April 1, 2001. The rate has remained unchanged since 2001.

The Sinking Fund Service Charge is 0.075% of the amount of the sinking fund balance, and is paid to the Province for managing MH's sinking fund balance. MH's sinking fund is a covenant related to its bond issues.

A legislative amendment to the Manitoba Hydro Act provided for a special payment to the Province, which was to be made through a first instalment of \$150 million plus an additional amount not to exceed 75% of net income for 2003. The remaining instalment in 2004 was not to exceed 75% of net income. The amount was originally estimated to be \$288 million. It should be noted that this special payment amount was determined before the financial impact of the drought was known to the Province or to MH. Subsequently, due to MH's lower than expected net income in fiscal 2003 and 2004, the total amount remitted to the Province of Manitoba was reduced to \$204 million. MH advised that the payment was forecasted to increase the debt to equity ratio by 3.1% to 4.5%, over the period to 2012/13. The interest coverage ratio decreased by .06, and the capital coverage ratio was slightly reduced as a result of the Special Payment.

The following table provides a comparison on a percentage basis of MH's Payments to the Province, as compared with payments made by BC Hydro and Hydro-Quebec to their respective Provincial governments.

	<u>Manitoba Hydro</u>			<u>BC Hydro</u>			<u>Hydro-Quebec</u>		
	2001	2002	2003	2001	2002	2003	2000	2001	2002
Total Payments/ Total Revenue	11%	15%	30%	10%	12%	17%	11%	11%	12%
Total Payments/ Total Assets	1%	2%	4%	6%	6%	6%	2%	2%	3%
Total Payments/ Net Income	51%	93%	526%	180%	180%	177%	116%	224%	100%
Total Payments (\$ millions)	135	211	405	741	727	741	1,251	1,330	1,531

3.11 Finance Expense

Finance expenses were \$441 million in fiscal 2002/03, which was approximately 35% of MH's total expenses, and are forecast to be \$472 million, \$505 million and \$529 million in fiscal 2004, 2005, and 2006 respectively. The increase in finance expense is primarily due to the loss related to the drought, increased capital expenditures and the special payment to the province. Reduced net income affects finance costs because an increased percentage of capital expenditures are required to be effected through borrowings rather than internal earnings.

MH indicated that approximately 21% of its total debt for 2003/04 was short-term debt at floating interest rates, some lower than 1%. In holding short-term debt, there is a risk that interest rates will increase leading to future increases in financing charges. MH indicated that if it forecasts that rates will trend upward, it may utilize longer term debt instruments. MH advised that it has a guideline that floating debt is not to exceed 30% of total debt.

3.12 Exposure Management and Foreign Exchange

MH's Exposure Management Program hedges U.S. cash flows related to export sales and imported power and thermal fuel purchases with cash flows related to U.S. debt and investments. The forecast assumes that even a conservative estimate of projected U.S. export revenue in combination with U.S. sinking fund income and withdrawals will be sufficient to provide for the maturities of U.S. denominated debt issues.

U.S. cash flows hedged in this manner are translated, for accounting purposes, at the historical book value exchange rates of the U.S. debt. Remaining U.S. dollar inflows and outflows are valued at the market exchange rate prevailing as of the date of the individual transactions. The exchange rate prevailing at year end is used for the balance sheet presentation of U.S. dollar denominated debt and investment instruments.

3.13 Capitalization Policies

MH capitalizes many expenditures, including DSM expenditures such as the Power Smart program. Power Smart program costs are the cost of MH's energy conservation programs, and are deferred and amortized on a straight-line basis over periods up to 15 years. The carrying value was \$61 million as at March 31, 2004 and \$50 million as at March 31, 2003. BC Hydro also uses a straight-line basis to amortize these costs but generally not in excess of 10 years, and costs incurred prior to establishing feasibility of the program are expensed as incurred.

Planning Studies are costs related to uncommitted major generation or transmission facilities and are deferred and amortized on a straight-line basis over 15 years. The balance of the unamortized planning study costs for a project is transferred to the capital cost of the project when a decision is made to proceed with the construction of the project. The carrying value of the Unamortized Planning Studies balance was \$37 million as at March 31, 2004 and \$35 million as at March 31, 2003. BC Hydro amortizes these costs on a straight-line basis over five years, while Hydro Quebec uses a sinking fund over five years for environmental studies.

Construction in Progress consists of contracted services, direct labour, material and expense, a proportionate share of overhead costs and interest applied at the weighted average cost of capital related to projects in development. Once the projects become operational, depreciation and finance expense begin. BC Hydro, Sask Power, Hydro Quebec and Hydro One all capitalize financing costs in their Construction in Progress accounts.

Site restoration costs are deferred and amortized on a straight-line basis over 15 years. The carrying value was \$20 million as at March 31, 2004 and \$19 million as at March 31, 2003.

Acquisition costs related to Centra Gas Manitoba Inc. and WH are being amortized on a straight line basis over 30 years. The carrying value was \$19 million as at March 31, 2004 and \$20 million as at March 31, 2003.

Goodwill related to the acquisition of Centra Gas Manitoba Inc. in the amount of \$62 million has been capitalized as at March 31, 2004, and \$46 million has been capitalized for goodwill associated with the acquisition of WH. Goodwill impairment tests were performed in accordance with CICA requirements which indicated no impairment of goodwill.

With respect to information technology, all computer hardware, software, and major labour costs for development that exceed 200 person days, including overhead and interest, are capitalized.

3.14 Mitigation Costs

MH is party to an agreement dated December 16, 1977, with Canada, the Province of Manitoba and the Northern Flood Committee Inc., representing the five First Nations in the communities of Cross Lake, Nelson House, Norway House, Split Lake and York Landing. This agreement, in part, provides for compensation and remedial measures necessary to ameliorate the impacts of the Churchill River Diversion and Lake Winnipeg Regulation projects. Comprehensive settlements have been reached with all communities except Cross Lake. Expenditures incurred to mitigate the impacts of the Churchill River Diversion and Lake Winnipeg Regulation projects amounted to \$29 million during 2004 and \$40 million during 2003. To March 31, 2004, \$540 million has been spent in mitigating and compensating the project-related impacts.

MH has also entered into agreements with the Province of Manitoba whereby MH has assumed obligations of the Province with respect to northern development projects. MH has assumed obligations, a portion of which remains outstanding, totalling \$143 million at 2004.

In recognition of the anticipated mitigation payments to be incurred, the Corporation has recorded a liability of \$121 million as at March 31, 2004. Reassessments of this liability will be made as settlements are achieved. The notes to the audited financial statements of MH indicate that some aspects of its approach to mitigation have not been costed for statement purposes, and thus there is a contingent and unmeasured liability in this respect.

4.0 Financial Targets

4.1 Background

In September 1995, MH adopted the following financial targets, which were reviewed by the Board at the 2002 Status Update Hearing.

1. To achieve and maintain a minimum debt to equity ratio target of 75:25 by no later than 2011/12.
2. To achieve and maintain an annual gross interest coverage ratio in the range of 1.20 to 1.35 as soon as possible. In 2003, MH revised its interest coverage target in IFF03-1 to 1.1 to allow greater flexibility in its rate setting options recognizing the variability of net income and to allow for its debt to equity ratio to improve without domestic rate increases during periods of high export revenue and low interest rates.
3. To fund all capital construction requirements from internal resources, except during periods when major new generation and/or major transmission facilities are being added to the system.

During the Status Update hearing, MH stated that in adopting its financial targets, a number of factors were considered including the following:

- A cushion is required to absorb the impact of negative events so as to maintain rate stability for customers;
- Risks faced by MH have been increasing in complexity and size. In this regard, MH noted that a major drought could cost in the range of \$1 billion, and revised this estimate during this hearing to over \$2 billion;
- Credit rating agencies rely on MH's status as a self-supporting utility in determining the Provincial credit rating; and
- MH's financial targets are not out of line with the financial position and performance of several other Canadian crown-owned electric utilities.

4.2 Debt to Equity

The debt to equity ratio measures the relationship of long term and short term debt less short term and sinking fund investments to equity (retained earnings and unamortized customer contributions). This ratio is used to assess the financial risk to MH by examining the level of debt in relation to the amount of equity held. MH's debt to equity ratios for fiscal 2002 to 2006 are as follows:

Fiscal Year	Actual		Forecast		
	2002	2003	2004	2005	2006
Actual/IFF03-1	77:23	80:20	85:15	85:15	86:14
IFF01-1	77:23	78:22	78:22	77:23	77:23

The significant deterioration in the debt to equity ratio from IFF01-1 to IFF03-1, is primarily due to the circumstances noted earlier, i.e. the financial impact of the recent drought, payments to the Province and rising capital and operational costs. Based on IFF03-1, MH stated that it did not expect to achieve its target of 75:25 by 2011/12. The Corporation provided no plan to achieve this target at the hearing.

In its report dated September 30, 2003, Dominion Bond Rating Service Limited indicated that MH's "high leverage will continue to result in weaker cash flow-to-debt and interest coverage ratios compared to investor owner utilities. However, the provincial guarantee will continue to carry the A rating."

In Order 7/03 the Board stated that establishing an adequate reserve level is an appropriate strategy to mitigate the financial impact of a drought and that MH should develop a policy to identify a reserve provision amount and in particular, to set the circumstances under which it can be drawn down or increased.

MH stated that it does not support the use of reserves which is a throw back to the old rate stabilization reserves of 15 years ago, which were abandoned. Credit rating agencies look at total retained earnings, and, in MH's opinion, restrictions may weaken MH's ability to respond to unforeseen events.

4.3 Interest Coverage

The Interest Coverage Ratio is calculated to measure the degree to which net income before interest exceeds finance expense. MH's interest coverage ratios for 2002 to 2006 are as follows:

Fiscal Year	Actual		Forecast		
	2002	2003	2004	2005	2006
Actual/IFF03-1	1.47	1.17	.29	1.08	1.05
IFF01-1	1.43	1.21	1.18	1.12	1.13

MH stated that the majority of the reduction in the interest coverage ratio from IFF01-1 to IFF03-1 is due to lower forecasted net income, including the substantial loss experienced in 2003/04, and a slight increase in forecasted interest expense.

4.4 Capital Coverage

The Capital Coverage measures MH's ability to make capital purchases without additional borrowings. MH's capital coverage ratios for 2002 to 2006 are as follows:

Fiscal Year	Actual		Forecast		
	2002	2003	2004	2005	2006
Actual/IFF03-1	1.61	.95	-0.21	0.54	0.5
IFF01-1	1.10	1.05	0.99	1.05	1.06

The deterioration in the capital coverage ratios is due to the decreased funds from operations, attributable largely to the recent drought and increased forecasts of capital expenditures. MH did not provide a plan to achieve this target at the hearing.

5.0 Capital Expenditures

5.1 General

The Capital Expenditure Forecast (“CEF”) is a projection of MH’s capital expenditures for new and replacement facilities to meet the electricity requirements in Manitoba as well as expenditures to meet firm sales commitments outside the province.

The Board’s jurisdiction does not include the specific approval of capital expenditures. Because capital expenditures directly affect rates through depreciation charges, financing costs, and other factors, the Board, in Order 51/96, recommended that MH “stringently limit its capital expenditures where safety and reliability constraints allow and apply itself to reducing long-term debt with urgency.” In Order 7/03 the Board directed MH “to appropriately identify and specifically account for all export-related capital expenditures in their capital forecasts”.

Nonetheless, MH increased capital expenditures and did not segregate export related expenditures. MH noted that the Crown Corporations Council (“CCC”) reviews capital expenditures. In its First Quarter Report for 2004, the CCC indicated that MH’s projects and expenditure levels are deemed necessary to continue proceeding with generation development opportunities and maintain system reliability, public safety, environmental sensitivity, sustainable development principles, service and power quality, and export sale commitments.

MH’s planned capital expenditures for fiscal 2002 to 2006 are as follows:

Capital Expenditures (\$millions)	Actual		Forecast			5-Year
	2002	2003	2004	2005	2006	Total
Actual/CEF03-1	429	463	481	583	622	2,578
CEF01-1	425	367	376	338	330	1,836
Difference	4	96	105	245	292	742

Over the forecast period to 2014 capital expenditures increased \$2.4 billion from the CEF01-1, \$1.6 billion of the increase being related to the change from CEF02-1 to CEF03-1. This latter change had the impact of reducing forecast net income by a range of \$3 million in 2004 to \$86 million in 2012.

Some of the major increases in capital expenditures include the Wuskwatim Generation and Transmission Projects, wind power projects, planning studies for the Keeyask (Gull) and Conawapa projects, and equipment upgrade expenditures related to assets acquired from WH, as well as DSM expenditures.

MH stated that expenditures included in the CEF represent necessary expenditures to provide a safe and reliable supply of energy in the most efficient and environmentally responsible manner, in addition to projects related for export. MH's justification for capital expenditures falls into seven categories: capacity, load, safety, reliability, service, efficiency, and other. Proposed capital expenditure projects must be reviewed and approved by the Executive Committee prior to their inclusion in the Capital Expenditures Forecast.

In 2002, MH implemented new depreciation rates for capitalized items which resulted in increased depreciation expense of approximately \$4.7 million for the period 2001/02 to 2005/06.

6.0 Load Forecast and Power Resources

6.1 System Load

The Load Forecast is one of the MH's primary planning documents. It provides a projection of future sales growth for customers located in the MH service area. It also provides a projection of the energy and capacity requirements necessary to satisfy the needs of all customers in Manitoba. Energy and peak demand forecasts are used as inputs to the resource planning process, which balances future energy supply and demand requirements.

On a weather adjusted basis, MH's domestic system load forecast is estimated at approximately 4,028 MW net peak demand, and 22,690 GW.h of energy for 2005, and has grown by approximately 500 GW.h and 59 MW per year based on a five-year average. Load is expected to grow by 320 GW.h and 33 MW per year. However, the inclusion of DSM programs will reduce these growth estimates to 276 GW.h and 21 MW per year. It is worth noting that actual energy consumption in fiscal 2003, particularly residential consumption, was unusually high for reasons not fully explained by MH.

With relatively low generating costs and given favourable export markets, MH should be successful in the open market for the sale of power, despite the Corporation's limited interconnections. Therefore, firm contracts negotiated by MH provide additional system load demands over and above domestic loads. Available power not required by domestic or firm contract export customers can also potentially be sold in the export market as opportunity sales.

6.2 System Capacity

Hydroelectric and thermal generation for 2003/04 was 19,338 GW.h as compared to 29,167 GW.h for 2002/03. The reduced domestic generation was replaced with increased import purchases of 7,053 GW.h for 2003/04 as compared to 3,043 GW.h for 2002/03.

MH currently has approximately 5,471 MW of system capability. MH has sufficient resources to supply domestic loads and existing firm export sales to the year 2019 under expected load growth conditions.

The capacity criterion for the MH system requires that planned generation capacity must not be less than forecast annual firm peak demand plus a reserve requirement of 12% of forecast firm loads. The energy criterion requires that there must be sufficient firm energy sources to meet firm energy demand in the event of a repeat of the lowest historic river flow conditions (dependable supply). Dependable supply includes energy from hydro electric and thermal stations, firm energy imports from out of province as well as contract non-firm imports from the reserves of neighbouring utilities. However, contracted non-firm imports used for meeting firm load are expected to not exceed 10% of the firm energy requirement. The determination of dependable energy assumes Lake Winnipeg levels in the range of 711.7 to 711.9 feet above sea level.

MH considers that the most significant potential adverse effect that may result from climate change is an overall reduction in water supply for power generation. In the past MH has analyzed the relative economies between hydro generation and thermal generation under a scenario of a 15% reduction in long-term water supply. More recently as part of the evaluation of the Wuskwatim Projects, a sensitivity analysis was undertaken for a scenario with a 10% reduction in Churchill River flows.

6.3 New Power Resources

The two units of the natural gas combustion turbine plant at the Brandon Generating Station came into service in June and July of 2002, at a cost of \$191 million, to maximize export revenue while strengthening the security of the electricity system in southern Manitoba. The addition of 260 MW of combustion turbines at the Brandon Thermal Generating station in 2002 allowed MH to maintain lower hydraulic reserves without additional risk to Manitoba load.

The former coal-burning Selkirk Generating Station was converted to natural gas in June 2002 at a cost of \$30 million. The decision to convert the Selkirk Thermal Plant from coal to natural gas was made based on a business case that considered the likelihood of required emission control upgrades and determined these upgrades would exceed the cost of conversion to natural gas.

MH plans to bring new capacity online in 2010 through the Wuskwatim Generation and Transmission Projects provided the required approvals are obtained. The Projects will provide a total installed capacity of 200 MW and annual energy of 1,250 GW.h. Review of the Projects has been completed by the Clean Environment Commission.

MH is also planning construction of several new generating stations: Gull (650 MW), Notigi (100 MW), and Conawapa (1,230 MW) which MH indicates will be subject to separate hearings. In addition, MH has plans to construct the Henday/Riel 500 kV transmission line (82MW) and develop wind generation projects (200MW).

The projected capital costs of these new major generation and transmission projects as well as the projected capital expenditures for the existing system are as follows:

Capital Expenditures Project (\$ millions)	2004	2005	2006	CEF03-1 Project Total	CEF01-1 Project Total
Brandon Combustion Turbine	(2.3)				183*
Wuskwatim Generation	36	51	102	988	
Gull Generation Station Licensing	31	32	41	235	
Wind Generation	1	2	10	103	
Conawapa Studies and Licensing	8	26	45	191	
Henday/Riel +/-500 kV Line	2	14	14	360	
Riel 230/500 kV Station	0	7	12	96	
Northern AC Transmission	11	17		30	
Total New Generation and Major Transmission	86	148	225	2,003	183
Power Supply	124	138	106	1,267	640
Transmission and Distribution	147	142	142	768	1,394
Customer Service and Marketing	76	88	86	56	31
Finance and Administration	48	69	64	125	24
Total	481	583	622	4,219	2,272

* Brandon Combustion Turbine Project was completed in 2003.

7.0 Demand Side Management

MH's Demand Side Management ("DSM") initiative, "Power Smart", consists of energy conservation and load management activities designed to lower the demand for electricity in Manitoba. It is one component of the resources available for meeting the province's electrical needs and is an integral component of MH's integrated resource plan. Initiatives enable MH to serve more domestic customers with less energy, thereby allowing additional energy to be sold on the export market or, in the long term, defer the domestic requirements for new generation.

To evaluate new programs, a high level assessment compares the expected benefits to the incremental capital costs called a Marginal Resource Cost Screen. If programs pass the initial screening, a more detailed assessment is then undertaken which involves developing program concepts and designs, and projecting costs and benefits. MH evaluates the benefits related to the capital costs and the costs of program administration and promotion with a Total Resource Cost Test. In addition, it evaluates the benefits against foregone domestic revenue, program administration and promotion costs and incentive costs using a Rate Impact Measure Test.

Once Power Smart programs are in place, they are evaluated to determine the net program load savings and costs as well as the cost-effectiveness of these savings. Net savings take into consideration factors such as free riders, free drivers, heating and cooling interactive effects, system peak coincidence and persistence effects. Customer data and market information are used to assess the impacts of these factors on the overall savings attributable to incentive-based Power Smart programs.

By the end of 2001/02, Power Smart programs were estimated to have achieved an annual load reduction of 488 GW.h in energy and 179 MW in winter peak demand (at generation).

The Power Smart Resource Options contained in the 2001 Corporate Plan indicate energy and demand savings resulting from Power Smart initiatives are targeted to achieve 1,272 GW.h/year and 356 MW by 2011/12. MH submitted that rates will be 0.4% to 4.3% lower for the years 2005 to 2014 with the current DSM programs, depending on whether the individual is a participant in the programs.

In Order 7/03, the Board indicated a concern that MH may reduce the DSM effort given the approaching period of potential generation expansion. The Board directed MH “to re-examine the current level of DSM programs and pricing strategies to encourage conservation and develop a program with more aggressive targets to be filed with the Board by December 31, 2003.”

MH has completed a comprehensive and quantitative review of the DSM Potential. The DSM Potential Study identified maximum incremental achievable savings of 1,108 GW.h and 243 MW for the period of 2003/04 to 2017/18, in accordance with current market conditions.

MH has started redesigning existing programs and designing new programs, and expects a 2004 Power Smart Resource Options Plan by the end of this year. MH’s initial indication was that the 2003/04 plan suggests savings of 631 GW.h/year and 292 MW. MH stated that it will involve other stakeholders in the development of the plan, and has already consulted with representatives of CAC/MSOS and TREE. Other parties such as ECO network, Climate Change Connection and communities including Brandon and Thompson may also be involved.

MH opined that it has one of the most aggressive and long-standing commitments to DSM in Canada, that its efforts are comparable to leading edge U.S. utilities and agencies, and that MH’s programs exhibit best practices for energy efficient program design in today’s markets.

MH prefers more customer friendly alternatives to hook-up fees and incentive-based arrangements for the construction of new homes as suggested by TREE/RCM. For example, MH supports enhancing building codes and standards, to ensure market acceptance.

MH indicated that while there are DSM programs that apply to both electricity and natural gas, it is difficult to develop natural gas programs because the benefits of energy conservation are not realized by MH in the same manner that decreased electrical consumption provides an opportunity for MH to earn export revenue. DSM related to electricity frees up generation for export sales, whereas DSM related to natural gas may only directly benefit consumers, from a financial perspective.

MH added that it is unsure of the status of Efficiency Manitoba, and understands that the Province is still looking into options of how it will be structured. However, it is a possibility that MH's DSM initiatives may be transferred to the new entity.

8.0 Risks

In Order 7/03, the Board stated that “a more disciplined approach to risk quantification can only be beneficial to the financial planning of MH and will assist the Board in its rate setting obligations, particularly with regard to the objective of determining an appropriate rate reserve level. In reviewing risks, MH is urged to further examine their inter-relationships.”

MH indicated it is in the process of implementing a Risk Management program that includes:

1. An approved risk management policy with clearly defined risk limits and tolerances;
2. A consistent organization-wide framework and systematic process for assessing and dealing with risks; and
3. Appropriate risk-reporting procedures.

Under the Risk Management Program, drought is currently the only “high consequence”, “high likelihood of occurrence” risk. With export sales contributing more than a third of electricity revenues, MH’s largest predictable financial risk remains that of drought and drought-related high electricity import prices. While the timing of droughts is unknown, history suggests that they will occur on average every 8-15 years. Flow records suggest that drought durations may vary from one year to as long as five years. Low water flows have a disproportionately much large impact on net revenue than high water flows, because of the high cost of running thermal generation for base load as well as price/volume reactions to supply shortfalls.

MH is exposed to market conditions for export sales, and to economic factors affecting load growth, the cost of doing business, and the financing of operations. Ongoing vulnerability to generation and transmission failures and risks affecting new plant development must also be considered.

Other risks of importance include:

1. Climate change,
2. Staffing issues,
3. Continued access to the U.S. export market,
4. U.S. export requirements;
5. Relationship with aboriginal communities,
6. Industry restructuring,
7. Economic changes, inclusive of increased interest rates and/or inflation;
8. Infrastructure mishap, and
9. Fuel price volatility during supply shortages.

One-off catastrophic “high-consequence”, “low likelihood of occurrence” risks include:

1. Domestic and export market competition issues,
2. Financial credit impacts,
3. Employees and public safety,
4. Regulation and licensing issues,
5. Events having a significant impact on MH’s reputation, and
6. Changes in technology or changing conditions that could alter and impact MH’s strategic direction.

Risk Advisory provided a report to MH on April 1, 2003, the first part of a staged work package contract for Risk Advisory to assist MH in reviewing, quantifying and managing risk exposures that have arisen from its participation in the wholesale electricity markets and fuel procurement activities. The report suggests a number of tools such as electricity options, natural gas put options, weather derivatives and weather insurance can be used by MH to mitigate risk.

In addition, Risk Advisory stated that MH may be understating its credit risk by approximately \$45 million or even more, related to the risk of inability to replace long term contracts of potentially bankrupt utility customers.

Risk Advisory added that the Regulator should play a role in examining any proposed risk management initiative and recommended that MH contemplate undertaking periodic workshops

with the Board and stakeholders, and provide the Board with periodic updates on the status of MH's long-term risk position and its potential impact on rate volatility.

Since April 2003, Risk Advisory has been developing a Monte Carlo simulation model for MH that is intended to facilitate the quantification of the various major risk exposures faced by MH during droughts including volume, market price, exchange rates, and weather. In addition to the Monte Carlo simulation, Risk Advisory also suggested a review to determine the optimal instruments to employ in the risk management program, establishment of benchmarking criteria, development of an implementation strategy, and development of policies, procedures and guidelines to ensure best practices.

Deloitte LLP was engaged to perform a high-level review of MH's Enterprise Risk Management methodology, process and progress to date. Deloitte's report dated June 7, 2004, which is qualitative rather than quantitative in nature, found that the methodology employed, process developed and progress to date, to be among leading companies in MH's sector. MH is now at the stage where it needs to build risk management elements into regular everyday information for decision making.

Further work is required to fully develop, implement and sustain the integrated risk management program at MH. Key areas of focus will be:

1. Continued analysis of key risk areas, including ongoing updates to reflect changing conditions, enhancement of risk quantification and scenario analysis, and finalization of risk tolerance levels,
2. Refinement and further integration of the risk management process with other Corporate planning processes, particularly with regard to strategic planning, internal audit and other critical business functions; and

3. Development of monitoring and reporting systems to meet the needs of management and other stakeholders.

MH also indicated that it will consider the probability of more than one risk actualizing simultaneously. MH has established a Corporate Risk Group, to ensure that appropriate processes are in place to identify, assess, manage, and communicate MH's principal risks.

9.0 Overall Revenue Requirement

MH stated that 2003/04 was the most difficult year in the corporation's history from a financial point of view. The loss of \$428 million incurred by MH in 2003/04 was the largest loss ever experienced by a Manitoba Crown Corporation.

As a result of the losses related to the drought, MH indicated that it was no longer able to absorb inflationary pressures without rate increases. The Corporation opined that there is a limit to the number of years it can manage without a rate increase. MH indicated that it is important to rebuild retained earnings in preparation for and in advance of another drought or some other major negative event. From the evidence, it would appear that periodic droughts are certain, it is only the timing that is doubt.

To help address all the risks faced by MH, a debt to equity ratio of 75:25 remains a financial objective. MH indicated at the hearing that if rate shock was not an issue, it would request rate increases sufficient to get the Corporation to the 75:25 ratio in the short-term. The Corporation indicated that it is a reasonable approach to move to the debt to equity target over time.

MH also believes domestic rates are less than market prices in nearby interconnected markets, and noted that its rates had not been increased for a number of years. At the time of the hearing, the then-current rates were, on average, the lowest of any utility in North America. Both MH and certain Intervenors suggested that low domestic rates may encourage more domestic consumption and attract energy intensive industry to the Province, which would reduce revenue as profitable export sales are foregone. Therefore, in MH's view, rate increases are appropriate at this time.

10.0 Cost of Service Study

10.1 Purpose of the Cost of Service Study

A COSS is a tool used to assist in designing appropriate rates to be charged to each class of customer. The COSS analyzes the components of MH's costs and assigns them to the various customer classes. The purpose of this analysis is to compare assigned costs to revenues by customer classes. The relationship of the revenues from a particular customer class to the assigned costs for that class is the revenue to cost coverage ("RCC") ratio. A customer class where the revenues are equal to the assigned costs would have an RCC ratio of one. In Order 51/96, the Board stated, in part, that MH "should assume a revised zone of reasonableness target of 0.95 to 1.05" for all class RCC ratios. The results have been used to provide guidance in establishing the rate levels and designing the rate structures for each customer class so that each customer class pays its fair share of costs incurred by MH to deliver service.

10.2 Cost of Service Methodology

Fully embedded COSS's generally employ a three-step process of cost analysis as follows:

- (a) Functionalization of costs according to services (or functions) performed by the utility. The major functions by which costs are assigned are generation, transmission, distribution and ancillary services.

- (b) Classification of each function's costs according to the system design or operating characteristics that caused those costs to be incurred. In the case of electric utilities, costs are generally classified as one of the following:
- Demand-related costs - Allocated among the customer classes on the basis of demand imposed on the system during specific peak hours, and the capacity of facilities required to service the demand of customers.
 - Energy-related costs - Allocated among the customer classes on the basis of energy which the system must supply to serve the customers.
 - Customer-related costs - Allocated among the customer classes on the basis of the number of customers, the weighted number of customers, or costs per customer.
- (c) Allocation of each functional and classified cost component to specific customer classes based on each class's contribution to the specific cost driver selected.

As part of the Application, MH filed an actual 2003 COSS and a prospective 2004 COSS incorporating the following Board Directives from Order 7/03:

- (a) The former WH revenues and costs are assigned to the various customer classes in the same fashion as current MH customers.
- (b) Net export revenues are allocated on the basis of responsibility for generation and transmission costs.
- (c) Transmission costs, including Dorsey, are classified as 100% demand.
- (d) Transmission and ancillary services costs are allocated on the basis the 2 coincident peak method.
- (e) Generation Demand costs are allocated on the basis of the 2 coincident peak method.
- (f) Energy related generation costs are allocated to customer classes based on their share of the overall annual energy requirements.
- (g) HVDC costs, other than Dorsey, are functionalized as Generation.
- (h) Only transmission facilities recognized for inclusion in MH's Transmission Tariff are included in the Transmission function.

However, WH financial, customer, and load data was not fully incorporated as directed in Order 7/03. MH indicated that its principal concerns were the application of load research results from the rest of the system to the former WH customer basis, and the inability to allocate some direct costs to the Area and Roadway Lighting class in the former WH service territory.

The COSS filed by MH does not include a Firm Export Class or an Opportunity Export Class. MH stated that it continues to review options for the inclusion of such classes in the COSS. The COSS charges 100% of import costs to export sales, with the remaining net export sales assigned to domestic customers. No fuel costs are netted from export revenue, but a percentage of water rentals equal to the percentage that net exports, adjusted for losses and power purchases, is to the sum of MH hydraulic generation and 50% of thermal generation, excluding the Selkirk Generating station, is assigned to export sales.

MH voiced concern about suggestions made by an Intervenor to separate the export credit on a consumer's bill, stating that most customers only look at the bottom line. In MH's view, the information would have little impact on conservation. In addition, MH had concerns about using past years to determine the credit, as a drought could create a negative amount on a customer's bill, and this would likely cause instability and confusion.

The introduction of uniform rates by way of legislation in November 2001 eliminated the rate zone distinctions for customers on the inter-connected grid, and all rates in the previous Zones 2 and 3 were reduced to be the same as the rates charged in Zone 1, which included the City of Winnipeg. The financial impact of uniform rates was a decrease in annual revenue of approximately \$14.8 million from 2003, the first full year of implementation.

10.3 Revenue to Cost Coverage Ratios and the Zone of Reasonableness

One product of a COSS is the RCC ratio by customer class, where unity, or an RCC ratio of 1, indicates that the costs allocated to a class is equal to the revenue earned from that class. The

Zone of Reasonableness (“ZOR”) refers to the RCC ratio range above and below unity that is generally considered acceptable. That is, the degree to which each customer class either underpays or overpays their share of allocated costs. It is acknowledged that there is subjectivity and judgment used in allocating costs. Prior to 1996 the ZOR target was initially 0.85 to 1.15, then 0.90 to 1.10. In Order 51/96, the Board stated that MH should assume a revised zone of reasonableness target of 0.95 to 1.05.

The attached table summarizes RCC ratios by major customer classes over the last 10 years, and highlights certain customer subclasses that have been outside the ZOR under the existing COSS methodology.

PCOSS	1994	1995	1996	1997	1999	2000	2001	2002	2003	2004
Res Z1	92.5	96.5	100.5	102.5	96.3	97.0	92.4	100.6	95.5	96.3
Res Z2	93.7	95.2	96.6	96.0	99.9	101.0	98.6	102.1	103.7	98.7
Res Z3	82.6	82.7	81.8	81.6	83.7	83.1	83.9	89.0	81.4	79.6
GSS	105.6	105.3	106.2	104.5	107.7	105.8	105.4	107.1	107.8	107.2
GSM	110.1	106.1	102.4	102.4	105.5	108.4	109.4	104.4	102.9	104.8
GSL<30kV	109.5	105.2	98.5	100.9	101.4	101.2	102.6	96.8	93.4	99.9
GSL 30-100kV	114.8	111.8	109.4	108.1	110.3	112.0	118.8	109.4	108.8	109.5
GSL>100kV	111.6	110.9	109.5	111.1	110.8	111.0	116.7	100.1	114.3	113.8
GS Curtail	-	-	-	-	107.5	110.3	114.5	99.2	111.9	114.6

10.4 NERA Report

A report on Classification and Allocation Methods for Generation and Transmission in Cost of Service Studies was prepared for MH by National Economic Research Associates (“NERA”) and contained several recommendations, summarized below, with respect to MH’s COSS methodology:

COSS methods for MH should:

- (a) Incorporate marginal or incremental cost elements,

- (b) Take competitive market conditions into account,
- (c) Treat large and variable export sales as a specific class, and
- (d) Allocate the above-cost revenue from export sale in a fair and minimally distorting way.

MH agreed with NERA's position.

NERA recommended that an export class be created and allocate costs to this class using the same allocation method used for domestic classes. MH concurred with this position, however, stated that it is difficult to identify direct generation and transmission costs for some exports.

NERA suggested crediting the net revenue from exports based on generation, transmission and distribution. MH supported this position.

NERA also suggested that MH classify and time differentiate generation costs using the pattern of MH's opportunity costs, and refine the method used to estimate these opportunity costs. While MH supported this approach, the examples in the report require further refinement to determine MH's opportunity costs which are both realistic and defensible using data which is not commercially sensitive.

NERA indicated that MH should classify transmission costs using the line specific approach and refine the method used to identify the energy and demand related portion of each line. MH supported this recommendation, but noted that the change does not have a significant impact on the overall results.

NERA recommended allocation of generation costs using class energy use (and demand in the 50 highest hours of the season if there is a separate seasonal opportunity cost of capacity) by season and diurnal period, allocation of demand-related transmission costs using class contribution to the highest 50 summer and 50 winter peaks, and allocation of energy related transmission costs using annual class energy use. MH indicated that it supports all three of these positions.

MH did not file a revised COSS or a revised set of rates as a result of the filing the NERA study. However, MH did indicate that the RCC ratios incorporating the NERA recommendations would be as follows:

Class	RCC – Existing MH Methodology March 31, 2004	RCC – Reflecting the NERA Report March 31, 2004
Residential	90.6%	93.8%
General Service Small - Non-Demand	104.9%	108.1%
General Service Small-Demand	109.7%	110.2%
General Service Medium	104.8%	103.5%
General Service Large 0-30 kV	99.9%	96.6%
General Service Large 30-100 kV	109.5%	101.3%
General Service Large > 100kV	113.8%	106.8%
General Service Large > 100kV - Curtailed	114.6%	107.9%
Interruptible	94.2%	97.1%
Area & Roadway Lighting	108.9%	110.8%
Diesel	38.3%	54.9%

Overall, MH supported the principles suggested by NERA, but stated that further analysis was needed before they could bring an application based on NERA before the Board.

11.0 Rate Design

11.1 Rate Objectives

MH indicated that the requested rates were developed with consideration of the following rate objectives. The rates should:

1. Contribute to improved inter-class equity,
2. Conform with the principles of gradualism and sensitivity to customer impacts; annual adjustments to revenues by customer class are less than two percentage points greater than the overall 3.0% and 2.5% proposed increases in total revenue,
3. Be consistent with conservation objectives and current relative cost,
4. Be simple; and
5. Have combined impacts in customer monthly bill impacts as follows:
 - (a) For Residential customers, no customer will experience an increase in an average monthly bill over a year which exceeds the greater of \$3.00 per month or three percentage points more than the class average increase.
 - (b) For General Service customers, no customer will experience an increase in an average monthly bill over a year which exceeds the greater of \$5.00 per month or five percentage points more than the class average increase.

11.2 Customer Class Impacts

With consideration of its rate objectives, MH applied to recover the requested increases to Revenue Requirement from the domestic classes effective April 1, 2004 and 2005 respectively as follows:

Class	2004/05	2005/06
Residential	4.01%	3.51%
General Service Small Non-Demand	2.15%	1.52%
General Service Small Demand	2.09%	1.49%
General Service Medium	2.57%	2.11%
General Service Large < 30 kW	4.00%	3.50%
General Service Large 30-100 kV	2.11%	1.50%
General Service Large >100 kV	1.95%	1.47%
Area and Roadway Lighting	2.03%	1.51%
Overall	3.0%	2.5%

MH indicated that even with the proposed rate increases, MH customers would continue to pay rates that are the lowest in North America.

11.3 Customer Bill Impacts

Based on MH's proposal, residential customers would have experienced annual increases ranging from 0% to 5% depending on monthly consumption. The more energy consumed, the higher the average increase. A typical residential customer without electric space heat uses roughly 820 kW.h a month on average, and would have seen an increase in their monthly bill of \$1.88 or 3.6%. A residential customer with electric space heat using on average 2,130 kW.h per month would have experienced an increase of \$5.28, or 4.5% per month.

Small commercial customers, typically billed on the General Service Small rate would have experienced increases ranging from 0.2% to 4.0%, depending on monthly consumption and/or load factor. The overall class average increase would have been 2.1% in the first year. Larger commercial customers billed on the General Service Medium rate would have noted increases ranging from 0% to 3.7%, with the class average being 2.6%.

Increases to General Service Large customers would have varied depending on the voltage level served at and the load factor of each customer. Those served at 750 V to 30 kV would have experienced increases on their monthly bill ranging from 0.7% to 5.0%, with the average being 4.0%. Customers serviced at 30 kV to 100 kV would have noted increases ranging from 0.4% to 2.5%, with the average being 2.1%. General Service Large >100 kV customers would have noted increases ranging from 0.3% to 2.1%, with the average being 2.0%.

11.4 Residential

The former residential rate had a declining block structure which included a higher energy charge for the initial 175 kW.h block and a lower charge for the remaining block. A basic monthly charge of \$6.25 is also included. This, to partially recover billing, customer service, metering, meter reading, and some portion of the distribution system that is neither demand nor energy related.

For the rates effective April 1, 2004, MH proposed that the Basic Charge and first block energy rate would remain unchanged, with only the tail block rate Energy Charge increasing. By year two, the first 175 kW.h block would be eliminated under MH's proposal, with a single energy rate applied to all kilowatt-hours consumed.

11.5 General Service Small ("GSS") Demand and Non-Demand

GSS customers are generally small retail and commercial operations. Any customer that exceeds 50 kV.A is subject to a demand charge. There is a basic charge for single-phase power and for three-phase power, with the energy charge being a declining block structure.

Increases to the Basic Charge, Three Phase Charge and Energy Charges were proposed, while the Demand Charge would be reduced to equal the Demand Charge applied to the General Service Medium Demand class. Although the first block energy rate would remain the same as current, the first block kW.h amount would be reduced to 1,000 kW.h from the current 1,090

kW.h. By April 1, 2005, the first and second block energy rates would be the same, thereby reducing the number of blocks such that the first block amount would be at 11,000 kW.h

11.6 General Service Medium (“GSM”)

GSM rates contain a basic monthly charge, in addition to demand and energy charges. MH proposed that the monthly Basic Charge would remain unchanged, while the Energy Charge would increase while the Demand Charge decreased. The rates charged to this customer class would be slightly higher than those charged to the General Service Large customer class, this to account for utility-owned transformation.

11.7 General Service Large (“GSL”)

The GSL customer class is broken into three different rate groups, depending on consumption levels. There are no basic monthly charges. Those customers with the highest consumption levels are charged the lowest rates, as these customers are served off the main transmission system and do not use sub-transmission and distribution facilities. Only increases in the Energy Charge were proposed for the three large subclasses, the Demand Charges to remain the same.

11.8 Inverted Rates

The possibility of inverted rates in the future will be dependent on the result of the Inverted Rate study to be conducted by MH by December 31, 2004, as directed by the Board.

11.9 Balance Between Demand and Energy Charges

MH’s Energy Charges are among the lowest in Canada, however Demand Charges are in the mid-range for Canadian Utilities. MH undertook an exercise to first classify generation costs as 100% energy related, then set demand and energy rates to be revenue neutral in each class of service. The results were as follows:

Class	<u>Demand Charge</u>		<u>Energy Charge</u>	
	<u>Current</u>	<u>Rebalanced</u>	<u>Current</u>	<u>Rebalanced</u>
	\$	\$	\$	\$
GSS	8.32	6.98	0.02120	0.02540
GSM	8.32	6.79	0.02120	0.02540
GSL <30 kV	7.09	5.07	0.02010	0.02504
GSL 30-100kV	6.05	4.53	0.01975	0.02301
GSL >100kV	5.40	3.58	0.01975	0.02281

MH indicated that these changes may affect consumption patterns, but was unable to indicate the magnitude of such changes. MH cautioned that while these changes may encourage customers to conserve energy, customers may be less mindful of conserving usage at peak times, thereby requiring advancement of upgrades to Transmission and Distribution systems to meet winter peaking requirements.

11.10 Limited Use Billing Demand

The LUBD allows eligible customers with low energy use relative to demand use to choose an alternate billing process. Under the LUBD program, customers may opt for a lower demand charge in exchange for a higher energy charge. MH currently has over 100 customers using the LUBD rate option, none of which are GSL >30kV customers.

The Corporation proposed that the rates applicable to customers on LUBD Rate Option change in conjunction with the amendments to the energy and demand rates applicable to the standard GSM and GSL customer classes. Rates for GSS Demand LUBD and GSM Demand LUBD customers would be the same, with the Energy Charge increasing slightly, offset by a one cent reduction in Demand Charge. Energy rates for GSL 750-30 kV LUBD customers would increase slightly, with no change proposed to the Demand Charge. The energy rate for the GSL > 30 kV LUBD customer classes would remain the same, with a slight decrease in the Demand Charge.

11.11 Flat Rate Water Heating

Flat Rate Water Heating Rates are rates that were charged by the former WH for which MH has no similar rates. MH proposed to increase Flat Rate Water Heating Rates consistent with the run-off rate for the Residential class and the second block energy rate for the General Service classes. Some of these flat rates are controlled rates. However, MH no longer controls flat rate water heating load. There is a need to align these rates with the uncontrolled rates. MH indicated that achieving this alignment within the confines of MH's rate objectives was yet to be determined.

11.12 Surplus Energy Program

The Surplus Energy Program ("SEP") is an interruptible rate offered to qualifying GSM and GSL Demand customers. As customers in these classes may have their energy supply interrupted at any time for any duration, they are required, in most cases, to have an alternate back-up energy source. Customers are billed an Energy Charge based on the weekly spot market rates for peak, shoulder and off-peak, and are exempt from paying demand charges.

MH proposed to extend the SEP to March 31, 2007 with no changes to the Terms and Conditions with the exception of Option 1, Section 6 b) (ii) and (iii) to reflect Order 1/04 whereby the reference to highest measured demand is now 70% from the previous 80%.

11.13 Curtailable Rate Program

The Curtailable Rate Program allows MH to curtail a portion of a large industrial customer's peak load in exchange for reduced rates on that same portion of the load when it is not curtailed. The objective is to cut back on electrical loads during specific periods when the overall electrical system is being taxed to its maximum capacity, thereby reducing MH peak load.

MH did not propose any change to the Curtailable Rate Program at this time. MH is currently reviewing various curtailment options as an alternative form of Operating Reserves. The existing program deals primarily with MH's planning reserve requirements.

11.14 Diesel Rates

MH proposed to increase the initial energy block rates for diesel customers to maintain MH's policy to set such rates consistent with grid rates. MH stated that there would not be an over recovery if the initial block of diesel rates were to increase in relation to the requested increases for grid rates.

MH has an accumulated deficit related to a dispute within the diesel communities estimated to be \$18 million as at March 31, 2004. In addition, outstanding bills are due in respect of government rates billed, but not paid, by either INAC or the First Nation of approximately \$3 million. Outstanding issues related to diesel matters were part of a separate proceeding and Order 46/04. Resolution of outstanding issues is expected by the end of 2004, and will be the subject of a further Board Order.

11.15 Transmission Tariff

To ensure access to the lucrative American export market, MH complies with certain FERC initiated demands, including reciprocity. Just as MH is able to obtain open access to other utilities' transmission systems in the U.S., MH offers an open access transmission service and levies a transmission tariff to provide for the movement of electricity through Manitoba on its transmission grid. Offered as a service since 1997, the Transmission Tariff has been utilized, on occasion, by other entities and MH itself. Under MH's standards of conduct, the transmission function is separated from other functions and bills the other business units for use of the transmission facilities. Revenues have been received from use of this Transmission Tariff.

The transmission rate is calculated by dividing the transmission revenue requirement by MH's average monthly transmission system demand (MW) to derive daily, weekly, monthly and annual rates. MH stated that the tariff would not be used where a third party inadvertently flowed over the system or where an error had occurred in scheduling transmission service. MH received U.S.\$5.5 million from the tariff pricing arrangement in fiscal 2004.

MH's Open Access Transmission Tariff has never been submitted for approval by the Board or the National Energy Board, but its associated rate schedules have been filed with FERC in the U.S. This tariff is based on the FERC pro-forma Open Access Transmission Tariff. Approval of this tariff varies across jurisdictions. Some provincial regulators, such as the British Columbia Utilities Commission, have approved open access transmission tariffs. In the restructured Alberta and Ontario marketplaces, provincial regulators approve provincial based open access transmission tariffs.

12.0 Intervenor Positions

12.1 CCEP

Revenue Requirement

With respect to revenue requirement issues, CCEP indicated that it deferred to the analysis performed by CAC/MSOS and MIPUG. However, CCEP did take issue with the conversion of the Selkirk and Brandon thermal plants from coal to natural gas, given that the use of coal fired generation would have been cheaper, by some \$25 million, than the use of imports or natural gas during the drought period. In the view of CCEP, the conversion to gas and the elimination of coal thermal generation, though well intended, did add to the negative financial impact to MH in the context of the recent drought. CCEP opined that MH should use more rigor in making these types of decisions in the future.

Cost of Service Study

CCEP suggested that the COSS is in a state of flux. CCEP stated that the increase in the volume of exports and the prices received for exports have a distorting effect on the cost of service under the existing methodology. While NERA may provide some useful suggestions as a discussion paper for the future, CCEP suggested the Board should look to the existing COSS methodology but use the RCC's prior to the allocation of net export revenue as a 'check'. Using this approach, GSS Demand and GSS Non-Demand continue to be above the ZOR. The COSS incorporating the results of the NERA report also indicates that these classes are the most above the ZOR of any of the customer classes with the exception of Area and Roadway Lighting. Therefore, GSS customers are clearly overpaying in relation to the cost of service.

Rates

CCEP submitted that given the serious and pronounced over contribution, a rate freeze be contemplated by the Board for GSS Demand and Non-Demand customers. However, if the

Board comes to the conclusion that a rate freeze is not in the overall best interests of the ratepayers, CCEP would suggest that the GSS customers be brought to unity within seven years.

CCEP did not support the Board granting MH's request to collect higher rates late in the year, to recover the total level of annual increases. For CCEP, this would cause rate shock and would not contribute much to build MH's reserves compared to the sizeable loss resulting from the drought. Any rate increases should have the start date in accordance to when the Order is issued.

Rebuilding reserves is a long term issue.

12.2 CAC/MSOS

Revenue Requirement

CAC/MSOS supported the principle that rate increases should be to provide a sound financial basis for MH moving forward. However, CAC/MSOS reminded the Board that after the last drought, MH's retained earnings had fallen to \$92 million in 1982, was \$183 million in 1992 and did not reach an amount in the range of the current level until the year 2000.

CAC/MSOS argued that reserves are built over time, and a long term perspective is required when looking at MH's financial recovery from drought. Droughts are expected to occur, and CAC/MSOS believes this expectation is worked into MH's planning and pricing. CAC/MSOS stated that it was a mischaracterization that MH's retained earnings are disastrously low, especially given that MH continued to expect to achieve its forecasted export revenues in fiscal 2005.

CAC/MSOS also opined that the Board should keep in mind the level of capital expenditures and the special payment to the province. From CAC/MSOS' perspective, it is important not to overreact. The worst case \$2 billion loss quote provided by MH as the potential cost of a future drought is not a figure to be feared or trusted until tested, according to CAC/MSOS.

CAC/MSOS argued that the onus is on MH to establish that its requested rate increases are required. CAC/MSOS suggested that MH double counted \$11 million in OM&A costs in its IFF, and did not account for approximately \$5 million in pension savings forecast to occur in the future. CAC/MSOS recommended that revenue requirement should be reduced by at least \$15 million. With this revenue requirement, CAC/MSOS projected that MH could still achieve its projected net income with a low rate increase, and suggested that MH be advised to achieve additional bottom line benefits through cost control. In future applications, CAC/MSOS suggested that MH separate productivity gains from cost increases and new programs that may be projected to offset such gains.

CAC/MSOS also expressed concern about different figures being provided by MH for OM&A expense, as well as MH's characterization that the intervenors were over emphasizing OM&A per customer. MH's relaxed emphasis on target cost per customers seems inconsistent with their statements in past hearings. CAC/MSOS added that when one compares BC Hydro and Hydro Quebec to MH on an unadjusted basis for all, MH's performance is much less impressive than MH has indicated. In addition, CAC/MSOS did not accept that the increase in MH's OM&A expenditures was 1.7%, but much higher. In general, when compared to other justifications with performance based regulation, MH requesting rate increases greater than the rate of inflation is setting sights too low.

Financial Targets

CAC/MSOS noted that collectively, major capital expenditures have a large effect on the debt to equity ratio. If MH raises rates because of large capital expenditures, this intervenor would then raise the question of intergenerational inequity. It is unfair to ask today's ratepayer to pay for benefits received by tomorrow's ratepayer. CAC/MSOS added that it should not be forgotten that the special payment to the province increases the debt to equity ratio by 3% to 4.5% over time.

COSS

CAC/MSOS did not feel that strict adherence to unity is necessary given the large amount of common costs, and the subjective nature of the allocation process of these costs. There is not much regulatory precedent in this area, because things have materially changed. Volumes of export revenue and export prices have both increased over time.

CAC/MSOS indicated that lower RCC's for Zone 3 residential customers caused by uniform rates may contribute to upward pressure on residential rates. This impact was not the intent of the legislation, and therefore credit from export revenue should be given to residential customers for the impact of uniform rates.

CAC/MSOS acknowledged that the use of ZOR made sense. However, they also put forth that gradualism is necessary, because the COSS is in a state of flux. Therefore, MH should ensure that all classes are within the ZOR over a reasonable period of time being five to seven years, and that a 0.5% differential for the residential class would not be unreasonable.

CAC/MSOS suggested that MH be directed to come back with a full COSS proposal reflecting supportable recommendations. CAC/MSOS favours the NERA report. CAC/MSOS did not support TREE's suggestion that plant assets should be segregated into low cost and high cost categories and allocated differently.

Rates

CAC/MSOS believes that rate increases significantly above inflation and significantly above the rates published in the public notices constitutes rate shock. CAC/MSOS suggested general rate increase of 2.3% on September 1 and 1.56% on April 1, 2005. They recommended smoothing out these increases to 2.0% and 2.1% respectively with a 0.5% rate differential for residential customers.

CAC/MSOS does not endorse retroactive rates or deferral accounts, and suggested that, in future, interim increases may be more helpful to residential customers.

Rate Design

CAC/MSOS believes there is merit to inverted rate design, but opined that “the devil is in the details”. They looked forward to receipt of MH’s report on this matter.

Notice of Motion for Leave to Appeal

On August 27, 2004, CAC/MSOS filed a Notice of Motion for Leave to Appeal Order 101/04 and Order 103/04 approving a 5% rate increase for all Manitoba customer classes pursuant to *The Public Utilities Board Act*, *The Crown Corporations Public Review and Accountability Act*, and *The Manitoba Hydro Act*.

CAC/MSOS’ Notice cited the following grounds:

- The Board declined to consider whether the current and projected operating and administrative costs of MH were necessarily and prudently incurred and whether as a consequence the projected revenue requirement was reasonable.
- As quoted in Order 101/04, the Board was “unable on the record of the proceeding to provide critical judgment on the appropriateness of the current and projected departmental and functional personnel complement and cost levels” of MH.

12.3 MIPUG

Revenue Requirement

MIPUG stated that there has been a distressing lack of commitment from MH with respect to responding to directives from the Board, particularly those related to MH keeping capital costs under control, addressing Board concerns about reducing the absolute levels of debt, and a lack

of an earnest commitment to comprehend and weigh Board recommendations with respect to an appropriate reserve provision amount.

For MIPUG, it's not enough to assert the drought could cost \$1 - 2 billion, and ratepayers should fund that level of reserves before considering the probabilities associated with those risks and undertaking further analysis. MIPUG holds that there is a clear and demonstrated need to ensure MH is under continued pressure to maintain cost controls. MIPUG is concerned that rate increases will fund cost increases at MH, and not materially aid in recovery from the drought.

MIPUG stated that the costs of recovering from the drought should not to be borne solely by the ratepayers. MIPUG believes that MH can reduce its internal spending to respond to the drought. Therefore, MIPUG requested that the Board direct that MH's capital expenditures, such that are not required for safe and reliable service, be reduced and stringently controlled. This, in light of the impact excess spending has on rates.

Financial Targets

MIPUG requested that the Board direct MH to come forward with credible options for setting aside reserves distinct from retained earnings, to be drawn down whenever MH experiences extraordinary losses or special circumstances. MIPUG wants the Board to direct MH to complete a quantification of the reserves, distinct from retained earnings, necessary to guard against the Corporation's major risks. MIPUG seeks a proposal for setting such amounts aside in the manner of insurance, so as to ensure that amounts set aside as reserves are available when needed.

Rates

In MIPUG's view, overall rate increases for fiscal 2005 and 2006 should have been approved at 2.4% and 2% respectively (i.e., the level of inflation). For MIPUG, while there may be a time when rate increases beyond the rate of inflation are required, this was not the time. MIPUG

holds that considering the error highlighted by CAC/MSOS, MH has an opportunity to replenish its retained earnings, and move faster in its recovery from drought, while keeping rate increases to the rate of inflation. MIPUG noted that providing rate relief for one class, the industrial class, does not mean that there's a shortfall that needs to be made up by the residential class. MIPUG held that the evidence at the hearing demonstrated that MH can do with less.

MIPUG requested that the Board direct that MH consult with customers, regarding development of rate policy affecting them. MIPUG also requested that the Board direct MH to develop a comprehensive rate policy to move classes to the ZOR within five to seven years.

MIPUG noted a concern regarding market based rate setting and rejected MH's concerns that the current rates send out inaccurate price signals. MIPUG opined that Manitoba would have to change the legislative framework to set rates based on the market instead of cost.

COSS

MIPUG recommended that the prospective COSS should be accepted. From MIPUG's perspective, while there are many allocation options the Board has continued to allocate the export revenues to generation and transmission functions, this because the approach is based on the principle of cost responsibility rather than mere judgment.

MIPUG opined that it was not fair to provide a \$15 million subsidy to the residential class for the uniform rate program. For MIPUG, uniform rate approaches are common, and MH's approach is not a special deal requiring a special subsidy. MIPUG held that any relief in the overall level of rates granted should be directed to customer classes with rates consistently above 105, above the ZOR. MIPUG specifically requested that there be no rate increases to the GSL > 100 kV class, GSL 30-100 kV class and the GSS Demand class.

Accounting Policies

MIPUG encouraged the Board to make it clear that amounts put aside for removal and restoration purposes, whether currently allocated to the thermal generating station, deferred or bundled into the accumulated amortization amount on MH's balance sheet, should be maintained as a liability and set aside.

DSM

With respect to DSM, it is important that the Board direct MH to file an updated DSM plan as soon as possible, and to ensure that a review of this plan as well as a plan dealing with non-utility generation be reviewed in a hearing by this Board before the next GRA. This, to ensure that the electric rate payers are getting value for the dollar built into rates. In addition, MIPUG suggested that MH should not abide by strict adherence to the Rate Impact Measures test for DSM programs, and should consider fuel switching whereby MH would encourage use of fuel sources other than electricity to increase export capability. Possible initiatives in this area may include DSM-based contributions to help conversion to natural gas, to assist in providing the capital contribution required to switch.

Notice of Motion for Leave to Appeal

On August 27, 2004, MIPUG filed a Notice of Motion for Leave to Appeal Order 101/04 and Order 103/04 pursuant to *The Public Utilities Board Act*, *The Crown Corporations Public Review and Accountability Act*, and *The Manitoba Hydro Act*.

MIPUG's Notice sited the following grounds:

- There was no evidence to support the conclusion that industrial sub-class rates were "insufficient";

- There was no basis in evidence to conclude that a rate increase of 5% was “just and reasonable”, or required to ensure the financial health of the utility;
- There was uncontradicted evidence filed that showed the industrial sub-class has been paying rates and continues to pay rates that already exceed the costs that they impose on the system;
- The Board failed to consider uncontradicted evidence that demonstrated that the amount of revenue that MH required to recover in rates was less than that approved by the Board;
- Differential rates for customer classes were appropriate based on evidence put for by MH and the other Intervenors;
- The Board failed to review and critically assess MH’s operating and capital expenditures in order to determine whether its stated revenue requirement was reasonable and should be recovered in rates paid by domestic consumers; and
- The Board failed to consider relevant and uncontradicted evidence that the progress towards a target of 75:25 has been more greatly constrained in recent years by increases in payments to MH’s owner, unrelated to the drought, than the financial impacts of the drought itself.

12.4 MKO

The Drought

MKO highlighted that MH was not forecasting any windfall profit over the next 10 years. MKO notes that one year might produce a good or bad financial result, but out of 10 years it all balances out. MKO First Nations do not support annual MH rate increases, because the waterways and resources of these communities have been affected by the development of MH. For MKO, MH’s operations are to some extent based on the promise of the type of profits that MH recorded over the last 10 years.

MKO understands that the primary reason for the requested rate increases is to address the current drought. However, MH has become substantially more risky. MKO highlighted that the record does not contain information regarding the activity with respect to off-peak and on-peak power purchases, trading settlements and compensation settlements. It is important that everybody understand the profitability of export activities to determine whether it imposes a risk to MH, given the substantial dollars involved. Further, it appears that at times of extreme drought, price increases expose MH and the ratepayers to considerable cost. MKO added that, in addition to the financial consequences to MH, the changes to the water levels impact MKO communities and grounded the York Factory Ferry.

Overall, MKO was of the view that the burden of paying for the cost of drought and recovery should not be entirely borne by ratepayers. There are substantial expenditures that are at the discretion of MH, and there is more that can be done to control costs and capital expenditures.

Overall, the good news is that the drought is over. Given that MH's reservoirs are full, MKO requested that new forecasted numbers be provided. Consideration should be given to the Board issuing an interim order requiring the production by MH of revised revenue forecasts, based on MH's evidence that energy in storage will be used to generate power and not spilled. Otherwise, \$28 million in costs may be passed onto customers that it is not necessary.

Revenue Requirement

MKO accepts the conclusion of CAC/MSOS that IFF03-1 is overstated by approximately \$15 million and would suggest that those amounts be accepted by the Board. If the dollars requested by MH can be found from other areas, including the error highlighted by CAC/MSOS, there should be no rate increases approved by the Board.

COSS

With respect to the COSS and the impact of uniform rates, MKO is of the view that some form of recognition of the effect of uniform rates should be given when examining RCC ratios. In the event that the Board finds itself issuing a cost of service methodology directive in this regard, MKO suggested that the Board request and obtain special direction from the Province of Manitoba on how to apply the Uniform Rate Policy to the COSS.

Rate Design

MKO supported the flat energy rate proposed for the residential class.

Demand Side Management

MKO would support MH's investment in demand side management programs for the MKO First Nations. In addition, the development of an integrated approach to DSM that includes fuel oil, wood and propane is critical for MKO.

Diesel Rates

With respect to diesel rates, MKO would request that the Board reject MH's proposal to increase diesel rates for the first 2,000 kWh for residential and general service customers because diesel customers are treated differently than grid customers and have their own COSS, which was not included in MH's Application. MKO recommended that diesel residential and general service customers be treated as grid customers within the overall MH system. MKO opined that as this option was not accepted by the Board, this furthered its argument that diesel customers are treated differently.

The Process

MKO stated that the use of electronic filing would greatly improve the process. In addition, MKO is not in a position to 'front-end' Intervenor costs. Therefore, a mechanism similar to that

used in the Wuskwatim joint hearings, which indicates the quantum of the funding up front and provides for an advance for some of those funds, would be helpful to the Board process.

12.5 TREE/RCM

Demand Side Management

TREE/RCM requested that the Board direct the following:

1. MH incorporate, into its new Power Smart Resource Plan, a broadened set of purposes and associated targets and performance measures that better reflect the energy efficiency and sustainability mandates found in *The Manitoba Hydro Act* and *The Sustainable Development Act* and the justice principle of helping customers meet their basic needs.
2. MH include amongst the targets of the new Power Smart Resource Plan the identification of low-income customers with high electrical usage and devise appropriate DSM programs to mitigate impacts of increased rates on their electric bills. Efforts should be focused to target special DSM programming and delivery to the high consuming poor to bring down their levels of consumption to more affordable levels.
3. Determine that the next application of the export credit shall be to support research and development, demonstration and pilot projects, and special initiatives to promote end-use efficiency and non-hydro renewable energy resources that will ultimately reduce the costs and environmental impacts of electricity consumption in Manitoba.
4. Implement a connection charge for new inefficient homes and non-residential buildings, offset by conservation credits for measures installed that go beyond minimum requirements of code. The goal is not to raise revenue, but to move the market for new construction to a higher level of efficiency. Absent a different proposal, MH should be directed to implement the \$2,000 charge per home, and \$200 charge per kilowatt for non-residential structures as recommended by Mr. Lazar, TREE/RCM's expert witness.

5. MH initiate natural gas efficiency programs that parallel the current and planned electricity efficiency programs, and authorize MH to file a uniform system benefit charge on natural gas throughput to pay the costs of the program.

Rate Design

TREE/RCM requested that the Board direct the following:

1. MH file an inverted residential rate design, with no increase to the customer charge, to take effect in 2006. The actual rates and blocking should reflect what is learned in the inverted rate study to be filed at the end of this year. The impact of inverted rates on northern customers and those without access to gas should be given serious consideration by the Board. Public policies may be developed, or targeted DSM and the use of export credits may be of use.
2. MH study at least two alternative methods of implementing inverted rates for commercial and industrial customers as part of the inverted rate study to be filed at the end of this year.

Mr. Lazar supported MH's proposal to move to a flat residential rate as a responsible first step towards rates which more accurately reflect current and future costs. Mr. Lazar recommended that the Board direct MH to study the concept of rolling baseline rates for industrial and commercial customers, so that customers that are not expanding will not have to subsidize those which have increasing loads. This study would be in conjunction with the study of inverted rates for these classes.

COSS

TREE/RCM stated that it is not more principled to treat every kilowatt hour alike in either cost or price, to define cost responsibility exclusively in terms of average embedded costs, or to slavishly adhere to precedent set under different circumstances. Proper analysis of cost responsibility should recognize that incremental kilowatt hours, both historic and future, are

supplied to the system at a higher-than-average cost. Application of the principle of cost-based pricing of electricity should recognize both that current power is supplied with a range of costs and that growth in usage imposes higher-than-average costs on the system and thus on existing users if the new revenues produced are not commensurate with added costs. Gradualism should be used to create some predictability and minimal disruption, but it does not preclude the setting of new targets and steady movement toward them.

Therefore, TREE/RCM requested that the Board direct the following:

1. Determine that the “export credit” should be calculated using an “export class” methodology that assigns the costs of resources other than Winnipeg River resources to export customers.
2. In addition to accepting the NERA recommendations, determine that the first application of the export credit shall be to support the impact of the “uniform rates” legislation. Rates for the Residential and GSS class should be set so that Zone 1 falls within the 95% to 105% “zone of reasonableness” and any deficiency that results for Zone 2 and Zone 3 shall be covered with a portion of the export credit.
3. The export credit as currently applied distorts prices and encourages excessive consumption of electricity in Manitoba. After paying the costs associated with uniform rates and investing in developmental efficiency and non-hydro renewable energy projects, the remaining export credit shall be distributed to customers in one of the following methods, which are listed in order of decreasing preference:
 - (a) Rebated to customers through governmental programs unrelated to electricity, such as health care or education.
 - (b) An annual credit to customers unrelated to usage on the model of the Alaska Permanent Funds.

- (c) An annual credit on the electric bill, customer by multiplying usage or revenue by a uniform system-wide factor, but not specifically identified as being usage-related. It should appear on the bill as a lump sum.
- (d) A monthly credit on the electric bill computed by multiplying usage or revenue by a uniform system-wide factor, but not specifically as being usage-related. It should appear on the bill as a lump sum.

Rates

TREE argued that, as a society, instead of looking at our high usage and asking how we can achieve the same or greater social benefits more efficiently with less energy consumption, we have asked how we can keep rates low. TREE/RCM believe that a suitably broad conception of wealth of Manitobans and the principles of sustainability should guide the planning, operations, financial management, and rate setting of MH and the review by the Board and Intervenors. For TREE/RCM, attention to these principles will be required to arrive at an informed determination of “just and reasonable” rates.

TREE/RCM opined that rate policies should be based on retention of appropriate price signals to promote behaviour that reduces social and environmental costs, on enhancement of people’s capabilities to act in response to those signals, and on equity between people, meaning that one group is not unduly favoured at the expense of others while basic needs are met and life opportunities created. Subsidies should be decoupled from higher levels of consumption over basic needs.

12.6 IBEW

IBEW monitored the process, but did not participate in cross examination or final argument, and did not present a witness at the hearing.

13.0 Presentor Positions

13.1 Mr. Cartwright

Mr. Cartwright, a former MH employee, expressed his views on several rate concepts. Mr. Cartwright suggested that rate groups by end use are not appropriate. Mr. Cartwright explained that customers should be charged based on the level of service they require and all customers requiring the same level of service should incur the same energy charge. For example, there is no justification for charging a different energy rate to a residential customer and a GSS customer, providing that the amps of power required by each of the customers is the same.

Mr. Cartwright stated that the use of a declining block rate structure is not environmentally friendly, and suggested that an inverted rate block pricing strategy rewards customers who use electricity efficiently.

Mr. Cartwright stated that MH needs to introduce a rate stabilization fund, whereby a share of any annual surplus funds be put into this fund to alleviate to some degree future electricity rate increases.

13.2 Mr. Ciekiewicz

Mr. Ciekiewicz's view is that although MH has not increased residential rates in the last seven years, a rate increase is not necessary or justified at this time due to the current level of retained earnings. In addition, Mr. Ciekiewicz explained that the rate increase is inconsistent with various statements made by Mr. Brennan, President of MH, in the Winnipeg Free Press in 2003 indicating that rates are not expected to increase as a result of the low water levels.

Mr. Ciekiewicz recommended that the Board order MH to publish information related to the actual generation of the individual generating facilities on a weekly or monthly basis so that the public could compare this data to the capacity of the generating facilities or the generation of

these facilities in prior periods. In addition, Mr. Ciekiewicz recommended that the Board order MH to publish information related to actual water levels of the reservoirs for the northern generating stations on a weekly or monthly basis so that water levels can be compared to previous years of high, medium and low generation rates.

Mr. Ciekiewicz suggested that the firm export contracts be structured such that the risk of a low water flow scenario occurring during the term of a firm contract is kept to a minimum. Alternatively, Mr. Ciekiewicz suggested that MH enter into fewer firm contracts and more interruptible contracts.

On October 3, 2004, Mr. Ciekiewicz filed a request to review and vary Order 101/04 to rescind the Board directives, taking issue with the rate increases granted by the Board.

He characterized the conditional rate increases as a psychological game. Mr. Ciekiewicz referred to retained earnings as a 'future loss fund' and stated that ratepayers have already paid for the recent drought. For Mr. Ciekiewicz, MH's remaining retained earnings is more than adequate to address another drought period especially when, in his view, it will take only a few years to rebuild retained earnings to \$1 billion.

Mr. Ciekiewicz indicated that Order 101/04 rewards MH, by way of an unnecessary rate increase, for its imprudent decisions, and suggested that the provincial government be required to replenish MH's retained earnings for the amount of the special payment.

He added that it is unacceptable for the Board to mention that no further dividend should be extracted until the debt to equity ratio is replenished to 75:25, as the Board would be making a tax decision on behalf of the Manitoba Government. Mr. Ciekiewicz opined that if a future drought is of such a major concern, the Board should order MH to hold back the Wuskwatim Projects.

13.3 Mr. Mathers

Mr. Mathers stated that the proposed rate increases are unacceptable for the majority of residents. He projected that the impact of the proposed rate increases for a home that uses approximately \$2,000 a year of electricity will amount to approximately \$150 a year.

Mr. Mathers stated that the revenue generated from the proposed increase will amount to approximately \$50 million over the two-year period and that this amount is equal to the water rental rates charged by the provincial government. According to Mr. Mathers, this rate increase, when approved, will, amount to nothing more than a tax grab by the provincial government.

MH increased its retained earnings from \$183 million in 1992 to \$1.17 billion in 2003.

Mr. Mathers is of the view that any Corporation that is capable of increasing its retained earnings to the extent that MH did over this period should have no problem coping with the short term impact of the drought. Mr. Mathers stated that for MH to request a rate increase because of a two year drought is “ludicrous”.

Mr. Mathers is of the view that the Board has an opportunity to reject the requested increase and put the onus on the management team of MH and the provincial government to adopt principles that will curtail expenditures. According to Mr. Mathers, expenditures should be tied to population growth and inflation.

13.4 Ms. Ternette

Ms. Ternette stated that the Manitoba League of Persons with Disabilities’ (“MLPD”) mandate is to promote equal rights, full participation in society, and facilitate positive changes through advocacy and public education.

Ms. Ternette explained that approximately 28% of Manitobans with disabilities participate in the workforce, many of whom are considered underemployed. The unemployment rate for

Manitobans with disabilities is almost twice the unemployment rate for the general labour force. In 2002/03, there was a monthly average of 15,403 persons with disabilities on the Income Assistance Disability Program.

Ms. Ternette stated most Manitobans with disabilities, whether employed or on the Income Assistance Disability Program, are considered low income earners. According to Ms. Ternette, an increase in hydro rates will constitute a great hardship for these individuals.

Ms. Ternette explained that the Income Assistance Disability Program includes a \$15 monthly allowance for hydro costs. If actual hydro costs exceed the \$15 budgeted amount, the individual must take the extra money from their household allowance to pay the balance.

Ms. Ternette concluded that when MH increases hydro rates, it jeopardizes the right of people with disabilities to live independently.

13.5 Mr. Turner

Mr. Turner, Chairman of MIPUG and Plant Manager at Nexen Chemicals Canada Limited Partnership (“Nexon”) presented views on behalf of the MIPUG membership, Nexon, and Inco Manitoba Division (“Inco”).

Mr. Turner explained that the purpose of MIPUG is for its members to work together on issues of common concern related to electricity supply and rates for major industrial companies operating in Manitoba.

According to Mr. Turner, MIPUG companies purchase approximately 4,000 GW.h of electricity annually at a cost of over \$100 million from MH. In total, MIPUG members employ over 4,500 people and have assets with a replacement value of over \$2 billion and sell over 90% of the products they produce outside of Manitoba. Nexen, a member of MIPUG, uses an electrolytic process to produce sodium chlorate, used to bleach wood pulp. The process requires

considerable electrical energy and costs, which account for approximately 60% of Nexen's manufacturing costs. Mr. Turner indicated that Nexen, which is located in Brandon, is currently in the process of relocating a plant from Louisiana. This due to the high cost of electrical energy in the U.S., and the fact that Manitoba has had a history of very stable and cost effective power rates.

Inco, another member of MIPUG, mines nickel in Thompson. Thompson's mine production volumes continue to decrease. Mr. Turner reported that increasingly more of Inco's business is derived from processing external feed ore. He stated that there are significant costs to transport the ore; but that this additional cost is offset by the lower cost structure in Manitoba, including MH's low electricity prices.

Mr. Turner opined that MIPUG members have been well served by MH over the years. However, he expressed concern over his members' perspective that there had been a slow shift in MH's priorities away from domestic customers to export sales.

Mr. Turner expressed his members' view that a stable and predictable electricity price environment is critical for MIPUG members to continue investing significant capital in Manitoba. He requested that the Board assist MIPUG members in retaining their competitive positions in Manitoba and North America, by restraining hydro rates. It is MIPUG's position that their perception of what represents fair and reasonable electricity rates is important for the future growth of large industry, such as is represented by the MIPUG member companies, in Manitoba.

14.0 Board Findings

14.1 Rates from Order 101/04

In Order 101/04, the Board found that the financial impacts of the drought on MH were extremely significant. After careful consideration of MH's overall financial position, its forecasts and risks, and the evidence and views of the Intervenors, and not knowing what the future holds, the Board determined that the aggregate rate increases over two years sought by MH may not be sufficient.

The Board agreed with MH that immediate additional revenue was required to begin to rebuild retained earnings. As such, the Board directed MH to file a rate schedule reflecting an annual revenue increase of 5% for all customer classes effective August 1, 2004. These rates were subsequently approved in Order 103/04. The 5% rate increase for residential customers of MH, effective August 1, 2004, was less than the 5.5% increase sought by MH for this class of customer for the balance of fiscal 2004/05.

The Board also granted a conditional rate increase of 2.25%, effective April 1, 2005, and a further conditional increase of 2.25% effective October 1, 2005. The April 1, 2005 conditional rate increase is subject to the Board's deliberations following MH's filing of the Corporation's revised IFF for fiscal 2005 and 2006 and second and third quarter fiscal 2004/2005 financial statements. This information is required, among other data, to assist the Board in forming a view as to the actual degree of financial recovery from the drought. This information is to be filed with the Board no later than January 31, 2005.

The October 1, 2005 conditional rate increase is subject to the Board reviewing MH's 2004/05 audited financial statements, an updated forecast for the fiscal years ending in 2006 to 2014, and MH's first quarter fiscal 2006 financial statements. This information is to be filed by MH with the Board by July 31, 2005. Once again, it is the Board's intent to review changes in actual

results and forecasts before deciding whether or not further rate increases, now conditional, are to be granted. In short, the implementation of the conditional rate increases provided for in Order 101/04 is not certain.

Based on IFF-03, the 5% rate increase directed by the Board as of August 1, 2004 is projected to increase MH's revenues by approximately \$31 million, only \$3 million more than sought by MH in its Application for the 2004/05 fiscal year. If circumstances warrant approval of the conditional rate increases notionally slated for 2005, it should be noted that based on IFF-03's current forecast of net income for fiscal year 2005/06 the forecast would be improved by approximately \$28 million.

Stated differently, for fiscal 2004/05 the Board's 5% August 1, 2004 rate increase, as compared to the Corporation's 3% April 1, 2004 increase, results in a net income forecast for the current year of \$43 million rather than the \$40 million forecast by the Corporation. For fiscal 2005/06, adding the two 2.25% conditional rate increases, as if granted, to the actual 5% directed increase as of August 1, 2004, increases the Corporation's forecast of net income from \$31 million to \$59 million. While net income levels of \$50 million are significant in absolute dollar terms, they are modest for a Corporation with the assets, debts, retained earnings and responsibilities of MH. MH's debt to equity ratio is below the Corporation's target and generally accepted industry standards.

The Board's position is that the revised forecasts for 2004/05 and 2005/06, utilizing the actual August 1, 2004 rate increase and the two conditional increases notionally slated for 2005, instead of the projected increases utilized by the Corporation in its Application (5.5% over the two-year period ending March 31, 2006), assuming all other revenue and cost forecasts made by the Corporation were realized, would result in modest net income for the Corporation, and a small beginning to the rebuilding of retained earnings drastically reduced due to the drought. If the Corporation's actual net income for the remainder of fiscal 2004/05 and the first quarter of fiscal

2005/06 varies considerably from these forecasts, the Board will take this new information into account in deciding whether or not one or both of the 2005 conditional rate increases will be granted.

Order 101/04 contained reasons for the rate and various other directives. The following sections further expand on these reasons, and provide additional directives for MH.

14.2 The Drought

Beginning in the fall of 2002, and particularly into the 2004 fiscal year, MH experienced severe financial losses primarily due to drought, resulting in the Corporation reporting an audited annual loss of \$428 million for its 2003/04 fiscal year. This drought also highlighted the increased risks faced by MH in the export market, and the resulting need for MH to build and maintain adequate reserves in advance of further significant investments in generating and transmission facilities.

The Board recognizes the concerns of the Intervenors that MH's revised estimate of over \$2 billion for the impact of a five year drought was not fully substantiated or tested during the hearing process. However, when the single year loss for fiscal 2004 was greater than \$400 million, and occurred despite successful initiatives undertaken by MH to restrain the loss, MH's \$2 billion plus estimate may be reasonable when considering the prospects of a 5-year drought. The Board will look to MH to provide further support for its loss estimate when the Corporation's risks are quantified as part of its risk management process.

The Board acknowledges the concerns of the Intervenors regarding MH's forecasts of capital, operating and administrative costs. The Board made a number of comments and directives in Order 101/04 to address these expenditures. However, the Board cannot ignore the significant impact of the drought. The Board remains of the view that it is reasonable for MH to begin recovering from the financial impact of the drought, and to progress towards achieving its debt to equity targets at as fast a rate as reasonably possible. Another drought will occur, and there is no

certainty that the next drought will not occur before retained earnings have been sufficiently rebuilt.

MH explained during the hearings that even in the absence of another drought it would not reach its targeted debt to equity ratio by 2013/14, and provided no plan to achieve its target within this 10-year planning horizon. The Board believes that this situation is not reasonable. The current debt to equity ratio of MH is much higher than that of Quebec Hydro and B.C. Hydro.

The approved rate increases are meant to assist the Corporation to recover from the impacts of the drought and begin re-building reserves for the benefit of all consumers and to provide increased protection from the negative impacts of future droughts.

During the public hearing, MH explained that its IFF represents MH's best estimate of the Corporation's future results. MH added that in some years, MH will achieve greater net income than forecast, and in other years MH will earn less. The main drivers of net income fluctuations are weather, water levels and export prices. Over time, net income results may balance to the averages included in the forecast, all other things being equal. The Board notes that MH's IFF forecasts have always included assumed rate increases at approximately the rate of inflation over the long term.

Prior to this Application, MH had not sought rate increases since 1997, as favourable net export revenues had offset increased and increasing operating costs. Substantial real, after inflation, reductions in rates occurred over this period.

While the Board has considered the impact of the unreconciled difference in the Corporation's detailed 2005 and 2006 expense forecasts related to OM&A expenditures, as apprehended by CAC/MSOS, the Board's view is influenced by actual cost trends and the risks and financial targets of the future. The Board accepts MH's contention at the hearing that "top down" derived

estimates of OM&A are reasonable, even if there is a problem with some aspects of the detailed “bottom up” forecasts.

As was indicated at the hearing, the Board sought and obtained the audited financial results of MH for 2003/04 and the unaudited results for the first quarter of 2004/05. These reports were provided by MH in confidence, as they had yet to be filed with the legislature or publicly issued. Through its review of these results, the Board was further enabled to support its overall view of the Corporation’s OM&A expenses.

Budgeting is not a science, it is an art. When considering potential future cost levels, proper budgeting relies heavily on trends, known circumstances, project planning and an assessment of risks. While the unreconciled difference apprehended by CAC/MSOS should have been noted and corrected prior to filing the Application, or addressed by MH at the hearing, the absence of these corrective measures does not eliminate the greater need of recognizing overall cost direction. Ignoring increasing costs, the rapid increases in staff complement and higher levels of organizational activity that is underway within MH would not be appropriate.

The Board is satisfied that MH took reasonable steps to mitigate its loss during the drought, including its actions in the futures market to reduce its export delivery obligations. The Board notes that no Intervenor indicated concern with MH’s actions related to export activities during the drought period. However, the Board is of the view that the events and actions of the recent drought created opportunities to learn and prepare for future droughts.

The 2002-2004 drought related experience suggests that:

- (a) MH is at risk of sustaining significant losses related to energy pricing when its hydraulic generation falls materially below the long-term mean;
- (b) During periodic droughts, when MH is a net importer of electricity, the Corporation may be faced with highly unfavourable import prices;

- (c) MH requires somewhere in the order of \$200 million per year in export revenue, net of associated water rental fees and fuel and power purchases, in order to break even; and
- (d) There are risks, as well as benefits, associated with MH's practice of seeking total energy sales above its hydraulic generation capabilities.

Therefore, the Board directs MH to file a study by an independent expert on MH's response to the 2002-2004 drought, the study shall assess MH's actions and provide comments and recommendations with respect to future actions and circumstances. This report is to be filed by January 31, 2005.

14.3 Revenue Requirement

The Board appreciates the diligent examination of the Intervenors with respect to MH's OM&A costs and capital expenditures. MH's information was occasionally contradictory, particularly the discrepancy between its "top down" and "bottom up" OM&A forecasts, and the Board suspects that MH could further improve its efficiency with respect to its capital expenditures.

While the Board recognizes the inherent difficulties with some of MH's information, the Board cannot ignore:

- (a) The negative financial impact of the recent drought;
- (b) MH's forecast of potentially higher losses in future droughts;
- (c) The risks associated with MH's participation in the export market; and
- (d) The Corporation's continuing trend to higher operating costs and staff complements.

Ratepayers have experienced the benefits of positive export results, including years with no rate increases and even rate decreases for some. It is reasonable to expect that ratepayers bear some of the impact of rebuilding the Corporation's reserves. Drought can happen in any year, occurrences being statistically certain, and can be experienced at levels far more significant than what MH recently experienced. All parties supported a financially healthy utility. The Board

considers MH's financial targets integral to the health of MH, and MH's suggestion that it would not reach its targets within the planning horizon is cause for concern.

Therefore, the Board finds a general rate increase of 5% just and reasonable, to provide additional revenue to MH without exceeding the parameters of rate shock. It should be noted that MH requested a 5.5% annual increase to be implemented over two years, whereas the Board granted a 5% increase which was implemented on August 1, 2004. The other rate increases provided by the Board are conditional and not certain at this time. If the conditional increases are granted, and MH's future net income forecasts are adjusted solely on that account, the achievement of the 75:25 debt to equity ratio financial target will still be a challenge.

14.4 Operating Results and Financial Projections

During the hearing, issues relating to operating results and financial projections were thoroughly canvassed. Intervenors joined with the Board in active cross examination, provided expert witness testimony, and submitted strong final argument with respect to this area. The Board has considered all the evidence provided during the hearing, and considered the CAC/MSOS comments with respect to unreconciled differences in MH's integrated financial forecast.

The Board is of the view that the issues brought forth by CAC/MSOS serve to call into question MH's detailed practices with respect to forecasting. The Board cautions MH that one of the goals of the hearing process is to instil confidence with the Board and Intervenors with respect to MH's forecasting ability. As such, the Board expects that MH will take more care in ensuring its "bottom up" forecasts reconcile with its "top down" forecasts for future applications, and suggests that a more detailed examination of MH's costs and forecasts at future rate hearings can be expected.

As previously discussed, net income for fiscal 2004 was originally forecast by the Corporation in its Application at a loss of \$355 million. This was \$446 million worse than the \$91 million net

income forecast in IFF01-1. MH revised its net income projection for 2004 during the hearing, indicating that its electric operations would post a loss in the range of \$400 million to \$430 million, and the actual net loss for 2004 was \$428 million. Net income results for 2005 and 2006 were also expected by the Corporation to be lower than it forecast in IFF01-1, by \$18 million and \$38 million respectively.

CAC/MSOS arguments regarding the Corporation's detailed cost forecasts were given less weight in arriving at the Board's decisions regarding rates than the Board's assessment of the overall situation and cost trends. There is also the matter of the Board's discomfort with the cost deferral practices of the MH. Significant OM&A costs are deferred or capitalized, relieving pressure on current year costs and transferring those costs to future periods, where revenue levels may be more uncertain.

The Board's statement in Order 101/04 which drew the attention of the Intervenors in their Motions for Leave to Appeal indicated that the Board was "reluctant, in fact unable on the record of this proceeding, to provide critical judgement on the appropriateness of the current and projected departmental and functional personnel complement and cost levels."

To clarify and to reiterate, this comment by the Board was made with reference only to the detailed cost forecasts. The Board concluded that MH provided sufficient evidence on overall costs and staff levels on which the Board based its rate increase decision. The Board relied on a top down view, one that considers actual and trend expense levels and increases in staff complement. Bottom up expense forecasting is a good test of the correctness of the top down forecast, but it does not replace the other approach and is only intended to be complementary to it. When a difference exists, as it does in this case, a choice has to be made. The Board chooses caution with respect to the financial integrity of MH, and reliance on actual and trend expense development.

With respect to the Corporation's Payments to the Province, the Board is aware that these have increased significantly over time and, similar to the effect of changes in the other costs of the Corporation, impact on MH's ability to meet its financial targets. The special payment to the Province was legislated before the financial impact of the drought was known to the Province or to MH. The Board notes that MH has not sought a rate increase citing these payments, though clearly on-going expenses are a factor in rate setting. As well, the Board notes that the hydro-electric corporations in Quebec and British Columbia also make similar payments to their provincial governments/sole shareholders.

Given the controversy that has surrounded the payments to the Province, and despite the fact that these payments are not within the jurisdiction of the Board and are similar to those found in other provinces, the Board is of the view that it would be beneficial if MH, with assistance from the Province of Manitoba, filed for PUB approval, any proposed future changes to obligations for certain payments to the Province.

The Board believes that a review by the Board would facilitate and encourage a better understanding by all parties and stakeholders of the nature and supporting rationale for any such future changes.

The Board is concerned with the range and level of costs being capitalized by MH. While the Board understands that many of the projects undertaken by MH are long term in nature, both from a benefit and cost perspective, aggressively capitalizing costs and selecting long amortization periods increases the rate risks to future generations of electric customers.

The Board questions whether aggressive capitalization policies are prudent. Therefore, the Board has directed MH to file a report on the appropriateness of capitalizing all DSM and other expenditures, whether they represent projects that are implemented and/or achieve their targets, and consider whether the current amortization period of 15 years for DSM and planning studies

is reflective of prudent and best practice. The Board does not dispute that MH's accounting is based on GAAP, only that GAAP also provides for a more conservative capitalization approach.

The Board believes that more timely availability of annual and quarterly financial information would be beneficial to future proceedings. The Board recognizes that certain financial reporting timelines are established by legislation. However, MH is capable of financial reporting in a more timely fashion than that set out in legislation. The Board believes that the lack of current timely financial information, in this case the actual operating results for fiscal 2004, had a negative impact on the hearing. The Board relied, in part, upon the audited results for fiscal 2004 and the unaudited first quarter results for fiscal 2005, which it received in confidence and was not available to the Intervenors until later publicly released.

14.5 Financial Targets

The debt to equity ratio is a key measure of the financial health of MH, and is considered an important matter by the Board. The Board has previously indicated that a long-term debt to equity target of 75:25 is appropriate, and remains concerned about the Corporation's overall debt levels in relation to its equity levels.

The Board is also concerned about MH's change from an interest coverage target of 1.2 to 1.1, and believes that it would be beneficial to further study the issue and perhaps return to the previous 1.2 target. Therefore, the Board in its Order 101/04 has directed MH to file a report on the implication of returning the Interest Coverage financial indicator to a target of 1.2 by no later than January 31, 2005.

The Board remains of the view that a capital coverage ratio of 1.0 is acceptable. However, the Board is concerned that even with the granted rate increases, MH may be in breach of this target for a number of years. In the absence of the Provincial debt guarantee, financing costs would be considerably higher. The Board notes that MH-generated debt represents more than 50% of the

total issued or guaranteed debt of the Province, and that this ratio is expected to continue to increase.

14.6 Risk

The Board recognizes that MH's financial targets have been impacted by the payments to the Province, the acquisition of Centra and WH, and the increased forecasts of capital projects, including the plans for Wuskwatim. Notwithstanding these events and their impacts and the virtual certainty of another drought, there are other factors supporting the need to rebuild retained earnings:

- To some extent, particularly with respect to business interruption and insurance risk exclusions, MH self-insures;
- Currently MH has two HVDC transmission lines running from the north to the south. These lines are located in close proximity to each other, and transport a significant portion of MH's generation capacity to southern Manitoba. Until another line is constructed that is geographically separate from these lines, MH is subject to substantial uninsured business and financial risk;
- The differential between on and off-peak wholesale electricity prices vary with market conditions. As MH relies on its ability to store cheaper off-peak power in the form of water reserves for export and usage during on-peak times, any convergence in on-peak and off-peak prices could erode MH's net export revenue;
- The regulatory climate of MH's export markets continue to change and MH has limited ability to influence those changes. Therefore, MH is at risk that a material change will negatively impact its ability to earn net export revenue;
- Until new generation capacity comes on line, Manitoba's electricity load will continue to increase thereby reducing export sales and potentially causing upward pressure on rates;
- Interest rates are quite low. As a significant portion of MH's debt is carried at extremely low floating rates, there is a significant risk that rates will increase in the future thereby creating higher finance costs;

- Despite hedging, there remains foreign exchange risk related to U.S. export sales and U.S. debt;
- Uncertainty is present with respect to a settlement of the Diesel generation disputed accounts; and
- When losses are incurred or capital expenditures are undertaken, MH has limited financing options other than through provincially guaranteed debt.

The Board remains convinced that MH's retained earnings should be rebuilt as quickly as possible. As further evidence of its concerns, the Board directed MH to file the following by no later than January 31, 2005:

- (a) MH's revised risk management strategy, reflecting the quantification of risks both separate and in combination; and
- (b) A report on MH's insurance portfolio.

In Order 7/03, MH was directed to file a study to quantify specific reserve provisions required to cover the major risks and contingencies faced by MH. While the Board notes MH did not file this study, the Board does note the study now underway with respect to the Corporate Risk Management Program towards identifying, assessing, managing and communicating principal risks, opportunities and threats to the achievement of MH's mission and mandate. The Board recognizes the concerns expressed by some of the Intervenors, and agrees that additional reserves are required as a buffer against business risks.

Therefore, the Board directed MH to file on or before January 31, 2005 a study of the implications of internally restricting its retaining earnings, to serve as a form of self-insurance reserve and rate stabilization fund. And, the Board recommends that any future dividend or special payment be deferred until the 75:25 debt equity ratio target has been achieved.

14.7 Capital Expenditures

The Board has considered the capital expenditures forecast by MH, as well as the complement of other information provided by the Corporation and the Intervenors with respect to capital expenditures.

The Board continues to be concerned with the progressive substantial growth in capital expenditures and accompanying debt. The Board accepts that many of the capital expenditures are related to reliability and safety, and therefore are may be prudent to incur. The Board also recognizes that many of the forecast capital expenditures are related to or the equivalent of generation expansion, such as supply side enhancements, Wuskwatim, Gull, and Conawapa, and may be justified individually when considering each project's purposes and forecast results over the long term.

However, collectively these projects negatively impact MH's debt to equity ratio and net income in the initial years, placing increased strain on the financial stability of MH and adding additional risk for existing ratepayers. The Board is concerned that MH has not developed a threshold for capital expenditures and associated debt growth that considers all projects, together with the health and financial stability of the company.

The Board notes and remains concerned that it has not been given full jurisdiction to review and approve specific capital expenditures. Manitobans, either as citizens or as ratepayers, will bear the costs of capital expenditures regardless whether these expenditures were made prudently. The Board is in the position of evaluating capital projects by way of their impact on revenue requirement and rates, often after the fact and with a limited ability to question specific items or the timing of such expenditures.

Given the risks related to the very significant additional plant investments and associated borrowing contemplated, the Board is of the view that the Province of Manitoba should re-evaluate the existing legislation relative to the Board's jurisdiction in this area.

14.8 Cost of Service Study

In Order 51/96, the Board directed MH to examine alternative methods of solving the persistent problem of certain subclasses being outside the ZOR. MH did not address this directive.

Order 7/03, echoed the concerns about the ZOR. In addition, the Board was of the view that due to increasing importance of export revenues, further study was required for determination and allocation of net export revenue in the COSS. Specifically, the Board requested that a COSS study be filed with consideration of an export class among other changes.

In the Application, MH filed a proposed COSS methodology without an export class.

Subsequent to the application, MH also filed the NERA report which contained an analysis of a separate COSS methodology and suggested the use of an export class. However, MH did not adopt the NERA recommendations, and did not file a proposed export class in its cost of service methodology.

The Board heard evidence from the Corporation and some of the Intervenors that the COSS presently employed by MH requires further review and amendment as it produces distortions in the cost allocation process. The hearings raised questions regarding determination and allocation of net export revenue, the treatment of the uniform rate policy, and differentiation between new and old generation facilities.

Because the COSS methodology is in a current state of flux, and in the Board's view incomplete, the Board can no longer rely on the current methodology in assessing the revenue to cost coverage rates for each customer class. It is imperative that further analysis be completed before

a COSS methodology can be established. Therefore, in Order 101/04 the Board directed MH to file by no later than January 31, 2005 three separate COSS models, to reflect:

- (a) MH's existing methodology;
- (b) The implementation of the NERA recommendations; and
- (c) MH's preferred approach and methodology, including supporting rationale.

In each of the models, MH is to allocate the cost of uniform rates as a first charge on net export revenue.

In addition to these studies, MH should also provide the Board with a study that considers the merits, including an analysis of the impact on rates, of allocating less expensive generation costs to domestic classes, with higher cost generation being allocated to domestic and export customers as suggested by TREE/RCM.

In addition, MH is to provide a report on the utilization of the Zone of Reasonableness concept, where all customer classes are moved to "unity" (allocated revenue equals allocated expenses) within five to seven years using MH's amended COSS model.

The Board understands that this matter is significant and expects that the COSS issues can be addressed prior to the next GRA.

14.9 Customer Class Rates

In Order 101/04, the Board approved the same rate increases for all rate classes. It would be imprudent for the Board to make rate changes to customer classes based on a COSS methodology that is in a state of flux, known to create distortions, and which is unacceptable to the Board. In addition, as the prospective 2004 COSS study reflects forecast information it does not take into consideration the additional shortfall created by the drought.

The 2003/04 shortfall was over and above the expenditures allocated to the various classes, and the revenue earned was insufficient from every class. Therefore, it is appropriate at this time to apply the approved rate increases equally to all customer classes. The Board understands that this treatment is a change from the past. However, the Board is of the view that sharing the rate increases by all classes is just and reasonable when the significance of the drought is considered.

The Board has fully considered the issue of rate shock. However, the Board is of the view that even after considering payments to the Province, MH's increased capital expenditures, its recent acquisitions, and other changes to the organization, it is reasonable for MH to recoup the losses incurred as a result of the drought in an expedient manner so that it has the necessary resources to withstand another drought. Moreover, it is reasonable to recover rate increases equally from all rate classes for the reasons noted above.

The Board shares the concerns of MH and MKO, the Intervenor representing the interests of the diesel-served and other First Nations communities, regarding the rates charged to diesel communities. However, the Board is of the view that as the initial rate blocks for the diesel communities are provided at the same rate as enjoyed by MH customers connected to the electricity grid, diesel rates increases should correspond to the grid rate increases.

The Board is aware of discussions held between MH, MKO and government. While the Board anticipates a resolution, it is concerned that a settlement may not result in all of the Corporation's outstanding accounts related to diesel generation being recovered.

14.10 Rate Design

The Board notes that the Intervenors were generally supportive of the rate structure changes (i.e., distribution of rate increases between the demand and energy blocks) proposed by MH. The Board is of the view that MH's proposal regarding rate structure and the shift to increasing energy charges within the customer classes is reasonable, and promotes conservation.

The Board notes that there is an outstanding directive for MH to study the merits of implementing an inverted rate structure for all customer classes and file a report by no later than December 31, 2004. The Board is hopeful that inverted rate structures can be further employed to encourage conservation as well as address market signals for some customer classes.

The Board is also expecting to receive a study which considers time of use rates for GS classes based on a seasonal, weekly, daily, and hourly basis, by no later than December 31, 2004. The Board remains of the view that it is important to explore time of use rates.

In addition, the Board requested that MH submit, for Board review, an analysis of the LUBD program. This study should review the initial and current objectives of the LUBD program and an analysis of whether these objectives have been achieved, possible modification to revise, improve or eliminate the LUBD program, together with supporting revenue information and customer data such as customer numbers and revenue impacts.

The Board notes that MH filed reports on the LUBD rate option and the Winter Minimum Demand Provisions on August 24, 2004.

14.11 Demand Side Management

In Order 7/03, the Board expressed its concern that the period of potential hydro electric expansion may reduce DSM efforts and directed MH to re-examine the current level of DSM programs and pricing strategies to encourage conservation, develop a program with more aggressive targets, and report to the Board by no later than December 31, 2003. The Board is disappointed that the new DSM programs were not completed by this date, and also not completed by the time of the hearing. Therefore, the Board will direct MH to file its Power Resource Plan for 2004 by January 31, 2005.

The Board is interested in the suggestions of TREE/RCM with respect to DSM, such as the TREE's proposed Surcharge/Rebate program for new housing construction. The Board will expect MH to consider these programs for possible inclusion in its 2004 Power Smart program.

The Board is receptive to exploring the concept of integrating electric DSM measures with those of natural gas. The Board is very aware of the difficulties natural gas customers are experiencing in meeting the cost of natural gas service, especially residential customers with low or fixed incomes. In some cases, subsidization may be mutually beneficial to both the gas and electric utilities, and the Board encourages MH to further investigate these options.

While conservation efforts for natural gas may not have the direct tie to utility benefits found with electric DSM and the electric energy export market, natural gas conservation has its own merits and is in the public interest. Natural gas prices have been rising much faster than electricity rates, and for the average residence electricity may now be less expensive than heating with natural gas, excluding consideration of capital costs. An integrated DSM approach, including electricity, gas and other fuel sources, one that extends into the diesel communities is in the best interests of Manitobans.

The Board notes that there is also an outstanding directives relating to a report that considers the use of wind power in remote diesel electric communities which is to be filed by December 31, 2004. The Board looks forward to reviewing this report.

14.12 Surplus Energy and Curtailable Rates Program

In Order 101/04, the Board approved as final, interim ex-parte Board Orders for the Curtailable Rate Program, Surplus Energy Program and Order 153/03 which contained directives regarding various rates matters. The Board also approved the extension of the Surplus Energy Program Terms and Conditions to March 31, 2007 and the change of Option 1, Section 6(b) (ii) and (iii) to

reflect Order 1/04 whereby the reference to highest measured demand would be 70% as opposed to 80%.

14.13 Application for Review and Vary

The Board has reviewed the comments and suggestions by Mr. Ciekiewicz with respect to a request to review and vary Order 101/04 and 103/04 dated October 3, 2004. While the Board understands the concerns of Mr. Ciekiewicz regarding the Special Payment to the Province and the Wuskwatim Projects, the Board does not have jurisdiction in respect of the amount of the Special Payment, which was authorized by legislation, or the timing of the Wuskwatim Projects.

The Board agrees with Mr. Ciekiewicz that one purpose of retained earnings is to provide a cushion in the event of future losses. The Board is of the view that there are other reasons for the Corporation to possess retained earnings. If a loss occurs, there is a need to replenish what has been depleted. Lenders look to the degree of capitalization of borrowers, and ratepayers find comfort in the presence of adequate reserves.

The Board is of the view that the approved August 1, 2004 rate increase is required to replenish retained earnings. No new evidence has been provided that would cause the Board to reconsider or change the directives in Order 101/04 and Order 103/04. Therefore, the Board will deny the review and vary request.

15.0 It Is Therefore Ordered That:

1. In addition to the directives in Order 101/04 which are summarized in Section 2.2 of this Order, MH shall file its Power Resource Plan for 2004 by January 31, 2005.
2. The request to review and vary Order 101/04 and Order 103/04 dated October 3, 2004 filed by Mr. Ciekiewicz, BE AND IS HEREBY DENIED.

The Public Utilities Board

Chairman

Secretary

THE PUBLIC UTILITIES BOARD

“G. Lane”

Chairman

“G. O. Barron”

Secretary

Certified a true copy of
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The Public Utilities Board

Secretary