

Outline of Closing Comments of Manitoba Hydro

February 28, 2013



Overview

Manitoba Hydro is Seeking...

Manitoba Hydro is Seeking:

- Approval to maintain in base rates the 1% rate deferral that had originally formed part of the rates approved in Orders 30/10 and 40/11 and to include in current year revenues, the revenues already billed and collected pertaining to rates implemented April 1, 2010
- Final approval of Orders 32/12 and 34/12 which approved a 2.0% interim rate increase effective April 1, 2012
- Final approval of Orders 116/12 and 117/12 which:
 - Approved a 2.5% interim rate increase effective September 1, 2012 for all domestic customer classes; and
 - Approved a 6.5% interim rate increase effective September 1, 2012 on the full cost portion of the rate applicable to GS and Government Service customers in the Diesel Zone
- Final approval of a 3.5% rate increase effective April 1, 2013

Manitoba Hydro is Seeking:

- Confirmation of the rate approval process for the Curtailable rate Program (CRP) given proposed changes to the program
- Confirmation of the rate approval process for the Surplus Energy Program (SEP) given proposed changes to the Terms & Conditions
- Final approval of CRP Interim Orders issued up to the date of the PUB's Order in this hearing
- Final approval of all the SEP Interim Orders issued up to the date of the PUB's Order in this hearing
- Final approval of diesel zone interim orders conditional upon the filing of true copies of the settlement agreement

Background to Rate Requests:

April 1, 2010 Request

2.9%
MH Application

Interim Order

2.9%
(Order 30/10)

Final Order

1.9%
(Order 5/12)

Impact

1.0%
(reduction)

April 1, 2011 Request

2.9%
MH Application

Interim Order

2.0%
(Order 40/11)

Final Order

2.0%
(Order 5/12)

Impact

.9%
(reduction)

April 1, 2012 Request

3.5%
MH Application

Interim Order

2.0%
(Order 32/12)

Final Order

1.5%
(reduction)

- Order 19/12 denied Manitoba Hydro's Review and Vary of Order 5/12
- Order 32/12 stated that the disposition of the revenues from the 1% rate reduction accumulating in the deferral account would be determined at the next GRA

Current Rate Requests:

September 1, 2012 Request

2.5%
MH Application

Interim Order

2.5% *
(Order 116/12)

April 1, 2013 Request

3.5%
MH Application

- The 2.5% increase was only applied to the energy and demand charges of customers rates
- IFF12 provided to PUB and parties as MH Exhibit #9

Need for Rate Approvals

Reasons:

- Reasons for rate increase requests have remained consistent
- Rate increase requests have been designed to ensure that the financial health of the utility is maintained
- Rate increase requests seek to ensure that ratepayers will continue to enjoy rate stability and predictability over the long-term
- No information provided to the PUB to refute the requirements for the rate increases proposed by Manitoba Hydro
- Forecasts and considerations that resulted in the PUB's findings for the September 1, 2012 increase have not changed significantly in IFF12 (page 5)

Primary Justifications:

- Avoid incurring losses on operations
- Limit the extent to which financial ratios are projected to deteriorate and to maintain the financial and credit rating integrity of Manitoba Hydro
- Compensate for the reduced prices for non-firm electricity sales on the export market
- Recognize that Manitoba Hydro's infrastructure is aging and that increased costs are necessary to maintain infrastructure in a safe and reliable manner
- Provide customers with the rate stability and predictability and to avoid the need for much higher rates in the future

Avoid Incurring Losses on Operations:

IFF10

Assuming Approval of Proposed Rate Increases

Net Income for electric operations:

2009/10 - \$160 million
(Actual)
2010/11 - \$149 million
(Forecast)
2011/12 - \$125 million
(Forecast)

IFF11-2

Assuming Approval of Proposed Rate Increases and Rate Rollback Reinstatement

Net Income for electric operations:

2010/11 - \$139 million
(Actual)
2011/12 - \$64 million
(Prelim. Actual)
2012/13 - \$20 million
(Forecast)

Total reduction in net income for 2011/12 was \$61 million from IFF10 primarily due to decreases in export prices

IFF12

Before Interim and Proposed Rate Increases

Net Income for electric operations:

2011/12 - \$62 million
(Actual)
2012/13 - \$28 million loss
(Forecast)
2013/14 - \$59 million loss
(Forecast)

IFF12

Assuming Approval of Proposed Rate Increases and Rate Rollback Reinstatement

Net Income for electric operations:

2011/12 - \$62 million
(Actual)
2012/13 - \$53 million
(Forecast)
2013/14 - \$60 million
(Forecast)

Total increase in net income for 2012/13 was \$33 million from IFF11-2 due to improved water flow conditions and various other assumptions

Avoid Incurring Losses on Operations:

- Financial results and quarterly report for period ending December 31, 2012 released
 - Consolidated net loss of \$38 million (\$24 million electricity / \$14 million gas) for first 9 months of 2012/13 fiscal year
 - \$24 million loss in electricity section includes impacts of two interim rate increases in 2012/13 and \$8 million non-controlling interest attributed to NCN for WPLP
- Allowing Manitoba Hydro to incur net loss on operations is not in the best interest of electricity ratepayers and could result in the requirement for substantially higher rate increases in the future
- It is in the interests of ratepayers for Manitoba Hydro to make annual contributions to retained earnings to ensure the maintenance of a strong financial position which ultimately is to the benefit of its customers through future rate stability

Limit the Deterioration of Financial Ratios:

- Three primary financial targets that guide revenue requirement:
 - Maintenance of a 75:25 debt to equity ratio
 - Maintenance of a minimum annual gross interest coverage ratio of >1.20
 - Maintenance of a capital coverage ratio of >1.20

<u>Financial Ratios</u>	<u>IFF12*</u>	<u>Absent Rate Increases</u>
Debt:Equity	75:25 (2012/13) 78:22 (2013/14)	76:24 (2012/13) 79:21 (2013/14)
Interest Coverage	1.09 (2012/13) 1.10 (2013/14)	0.95 (2012/13) 0.90 (2013/14)
Capital Coverage	1.09 (2012/13) 0.89 (2013/14)	0.90 (2012/13) 0.67 (2013/14)

*Assuming PUB approval of rate relief

Limit the Deterioration of Financial Ratios:

- Retained Earning (Electric Operations) and Debt:Equity
 - Retained Earnings projected to remain relatively flat to 2021/22
 - Debt:Equity ratio projected to decrease to 10%
 - Assuming proposed rate increases in the test years, the reinstatement of 1% rollback and indicative rate increases in IFF12 of 3.95% per year
- Interest Coverage Ratio
 - Forecast to be lower than target for first 13 years of IFF12
 - Projected to return to the 1.20 target level following Conawapa in service in 2025/26 and grows thereafter
- Capital Coverage Ratio
 - Below target for first 4 years of IFF12
 - Projected cash flows are sufficient to enable target to be met in remaining years of IFF12

Credit Rating Agencies:

- Manitoba Hydro credit ratings are a flow through of the Province of Manitoba credit ratings
- Manitoba Hydro's debt represents approximately 1/3 of the total Provincial debt and the Corporation's financial performance and key financial ratios are a significant contributing factor toward the financial strength and stability of the Province of Manitoba's credit rating
- Credit rating reports indicate that net income, coverage ratios and debt leverage metrics are consideration in the rating of Manitoba Hydro and the Province of Manitoba and also identify financial challenges facing Manitoba Hydro
- Extremely important for Manitoba Hydro's debt continue to be considered self-supporting by the credit rating agencies

Compensation for Reduced Prices for Non-Firm Electricity Sales:

- Significant reduction in net extraprovincial revenues over last 5 years (from in excess of \$300 million to approx. \$100 million)
 - primarily due to low export prices and is projected to continue into 2012/13 (\$97 million) and 2013/14 (\$62 million) test years
- IFF11-2 compared to IFF10 – Reduction in forecast net extraprovincial revenues of \$4 Billion over the 20 year period to 2031/32
- IFF12 compared to IFF11-2 – Further reduction in forecast net extraprovincial revenues of \$2.9 Billion over 20 year period to 2031/32
- Reduction in net extraprovincial revenues will have a significant negative impact on net income and financial ratios
- No other offsets that are of the same magnitude as the substantial reduction in net extraprovincial revenues

Aging Infrastructure and Increased Costs Necessary for Maintenance:

- Manitoba Hydro's generation, transmission and distribution assets have reached an age where their overall condition is placing greater risk on reliable electric service as some assets have been in service more than 70 years
- Reliability degradation:
 - Annual customer outages has increased 20% (1.7 vs. 1.4) over past 3 years
 - Average duration of an outage has increased over 30% (2.4 hours vs. 1.8 hours)
- Becoming more difficult to accommodate new load growth with aging infrastructure
- Availability of Manitoba Hydro's generating units has declined with a significant deterioration in availability of units along the Winnipeg River System due to age of equipment, unknown failure modes and deferrals of capital projects

Aging Infrastructure and Increased Costs Necessary for Maintenance:

- Diligent efforts underway at Manitoba Hydro to address the aging infrastructure issue as maintenance of existing assets is essential to the Province, its citizens, and ratepayers
- Over the next 20 years substantial increases in capital investment and maintenance budgets incremental to approved levels is required to upgrade aging distribution and generation infrastructure to avoid large scale and long duration outages
- Expenditures will be made at today's higher cost and it is important that rates are increased gradually to provide the funds necessary to make the necessary expenditures to continue to provide safe and reliable service

Rate Stability and Predictability:

- Proposed rate increases are in keeping with Manitoba Hydro's approach to implement regular and modest rate increases to ensure the maintenance of an adequate financial structure
- Sufficient level of equity allows Manitoba Hydro to withstand risks and uncertainties and to address adverse financial consequences outside of its control, promoting rate stability and avoiding the need for large or sudden rate increases in the future
- Manitoba Hydro's financial outlook for electric operations has significantly deteriorated since 2010/11 & 2011/12 GRA
- 3.5% rate increase requests achieves the appropriate balance between customer sensitivity and financial integrity
- Not the time to dispose of 1% rate roll-back as a refund to customers or consider deferring rate increases to the future

Operating Cost Control

OM&A:

- Manitoba Hydro continues to ensure OM&A costs are only those necessary to maintain safe, reliable and efficient service to customers
- Increase in OM&A costs are as a result of significant cost pressures on key inputs:
 - Salaries, Overtime & Benefits = 77% of OM&A expenses
 - Increase in wages & salaries is primarily due to negotiated contract settlements reflecting competitive pressures in market place in order to attract and retain skilled employees
 - Increase in EFTs attributable to growth in Manitoba Hydro's capital program
 - Increase in benefit costs reflects higher pension costs due to the amortization of investment fund losses, higher vacation expense due to an increased number of days accrued and higher extended health benefit costs due to negotiated coverage enhancements (healthcare costs are increasing annually in the range of 8-10%)
 - Fuel and other commodities
 - Prices of commodities such as mineral fuels, non-ferrous metals, wire and cables and ferrous metals have increased at rates between 6%-97% between January 2009 and December 2011

OM&A:

- Changes in accounting practices and policies have resulted in an annual increase to OM&A (\$78 million since 2008/09):
 - Changes to overhead capitalization practices to reflect industry trends to move away from full cost accounting (\$58 million), practices which are endorsed by Manitoba Hydro's auditors
 - Reduction in the discount rate on pension and other benefits (\$10 million)
 - Accounting reclassification (\$6 million)
 - Changes in Canadian Accounting Standards with respect to intangible assets (\$4 million)
- Manitoba Hydro has implemented a number of cost constraint initiatives to offset these cost drivers
 - Restrictions on external hiring
 - Restrictions on out of province travel
 - Restrictions on overtime
 - Reductions in community sponsorships and donations
 - Centralization of staff

OM&A:

- Manitoba Hydro has limited increases in OM&A costs to an average annual increase of 1.68% between 2009/10 and 2013/14 (net of accounting changes and incremental costs associated with in-service of Wuskwatim)
 - During this period, customers numbers were growing at an average rate of 5000 per year
- OM&A increases are below average annual increase in Canadian CPI of 1.82% over same period
 - CPI is only a general measure of cost changes of a standard basket of goods to a general consumer
 - CPI is not generally reflective of cost inputs of a business like Manitoba Hydro which consists mainly of wages, benefits, fuel, materials and contractors services. These costs have risen at a much higher rate than CPI.

Reply to Intervenor Comments on Proposals

MIPUG Proposals

MIPUG Proposals

- MIPUG recommends increase in overheads capitalized by \$56 and \$58 million in the Test Years
 - Essentially a request to return to overhead capitalization practices prior to 2008/09 for rate-setting purposes
 - Interpretation and application of CGAAP by utilities has changed over the years such that there has been a reduction in the general and indirect overheads that are being capitalized today
 - Overhead capitalization changes implemented to date recognizes industry trends to move away from full cost accounting and are designed to make Manitoba Hydro practices more consistent with those of other Canadian electric utilities
 - Manitoba Hydro changes are fully compliant with CGAAP and are fully endorsed by Manitoba Hydro's external auditors
 - The PUB was aware of Manitoba Hydro's intention to reduce the amount of overhead being capitalized, did not take exception to overhead capitalization changes for rate-setting purposes and expressed a concern that even with these changes, Manitoba Hydro's capitalization practices were overly aggressive

MIPUG Proposals

- MIPUG recommends increase in overheads capitalized by \$56 and \$58 million in the Test Years
 - The nature of the costs being expensed by Manitoba Hydro under current industry practices are sunk costs (i.e. building depreciation and IT infrastructure costs) or costs which do not vary directly based on the level of capital activity (i.e. executive costs)
 - Without a direct link to a capital asset, these sunk costs are more closely linked to current operations and as such, it is more appropriate from a rate-setting perspective that they be borne by the current ratepayers that derive the majority of the benefit from these expenditures
- MIPUG's recommendation is inconsistent with Canadian electricity utility practices, past findings and recommendations and should be rejected

MIPUG Proposals

- MIPUG recommends the removal of net salvage costs from depreciation rates
 - Manitoba Hydro will implement the depreciation rates resulting from the study in two phases
 - Manitoba Hydro implemented the updated service lives and new asset component groupings effective April 1, 2011
 - Manitoba Hydro plans to implement IFRS compliant depreciation rates upon the adoption of IFRS which will include a change in the depreciation methodology to the Equal Life Group and the removal of asset retirement costs from depreciation rates
 - Including net salvage costs in depreciation rates is a regulatory construct that promotes intergenerational equity for ratepayers and is permitted under Canadian GAAP consistent with the recognition of rate-regulated assets and liabilities.
 - Manitoba Hydro's proposal is to remove net salvage costs from electric depreciation rates upon adoption of IFRS which is driven by the fact that rate regulated accounts are not currently permitted under IFRS
 - Under IFRS, the future costs to retire the salvage assets will become a cost of the replacement asset

MIPUG Proposals

- MIPUG recommends the removal of net salvage costs from depreciation rates
 - Including net salvage costs in depreciation rates promotes fairness in rate making by ensuring that the current ratepayers benefitting from the respective assets are bearing some of the cost of removing those assets from operations when the assets are at the end of their useful life.
 - The provision of net salvage is based on a percentage of the original cost of the assets and the percentage is not increased on an annual basis for inflation or updated for estimates of removal costs
 - On its own, Manitoba Hydro would not favor the removal of net salvage from depreciation rates upon transition to IFRS, Manitoba Hydro does recognize that the removal of net salvage costs provides an offset against some of the other costs of transition to IFRS
 - acceptable tradeoff in order to mitigate the impacts of IFRS for ratepayers
 - Manitoba Hydro does not support the recommendation for an early adoption of the removal of net salvage from depreciation rates, as to do so would impair intergenerational equity, may have to be treated as a retrospective change in accounting policy, and may jeopardize Manitoba Hydro's ability to carry forward asset net book values on transition to IFRS

MIPUG Proposals

- MIPUG's recommendations adversely impact Manitoba Hydro's cash flow.
- Over the 5 year period to 2017, MIPUG's proposals would reduce Manitoba Hydro's cash flow by nearly \$243 million dollars.
- All other things being equal, this deficit would need to be financed with additional debt or via higher future rate increases.

MIPUG Proposals

- MIPUG recommends that long-term debt associated with new generation projects not yet in service be removed from debt/equity ratio
 - The proposed calculation is theoretical in nature and could result in the PUB having a very different assessment of the financial position of Manitoba Hydro than any other user of its financial statements
 - The proposed adjusted equity ratio is notional and does not reflect the actual total amount of debt issued by Manitoba Hydro
 - Manitoba Hydro will need to report its actual debt : equity ratio on its audited financial statements
 - Credit rating agencies will use the actual debt : equity ratio as reported on the audited financial statements
 - One of the purposes of regulation is to ensure the financial integrity of the utility for the benefit of ratepayers, having such a theoretical calculation that reflects only a portion of the Corporation's debt leverage is potentially confusing and misleading.

MIPUG Proposals

- MIPUG asserts that the level of reserves and annual contributions to reserves could be reduced because of a decrease in the projected cost of a 5 year drought to \$1.6 Billion in IFF12
 - Since 1995, the cost of a 5 year drought has increased however there has been no upward adjustment in the debt : equity ratio target to compensate for increased cost
 - 25% equity target is designed to protect Manitoba Hydro from **all** risks, not simply a drought (e.g. infrastructure risks, interest rate risks, and foreign exchange risks)
 - There are also financial risks associated with increased level of leverage and higher rate increases forecast in IFF12
 - While the corporation benefits from a lower value of export losses and lower cost power purchases related to drought in a period of low export prices, the corporation's ability to recover from the cost of drought, in the absence of rate assistance from customers, is also diminished due to lower subsequent net extraprovincial revenues

MIPUG Proposals:

- MIPUG asserts that Manitoba Hydro's treatment of the 1% deferral undermines the conclusions of Order 5/12
 - The PUB was very clear in Order 5/12 that they did not intend to implement 1.9% rate change immediately and rather directed Manitoba Hydro to create a deferral account
 - The PUB indicated in Order 5/12 that it would deal with the amounts accumulating in the deferral account at the next GRA

MIPUG Proposals:

- MIPUG exception to treatment of the General Service Large class with respect to rate schedules approved for September 1, 2012
 - Order 116/12 approved a 2.5% interim rate increase for all domestic customers effective September 1, 2012
 - Manitoba Hydro filed rate schedules consistent with past practice but the PUB did not agree with rate schedules and provided additional direction
 - No increase in energy charges over and above the 2.5%
 - Increase in demand charges up to 2.5%
 - No increase in basic monthly charges

MIPUG Proposals:

- MIPUG seeking an adjustment to September 1, 2012 interim rate increase applicable to the General Service Large Class to 2.3%
 - This results in a decrease in revenue collected of \$501,655
 - Manitoba Hydro applied for a 2.5% increase effective September 1, 2012
 - Parties afforded the opportunity to make submission on the September 1, 2012 interim rate increase and the Public Utilities Board approved a 2.5% increase
 - The result that Public Utilities Board clarification rendered less revenue than originally contemplated being collected from one customer class is not in and of itself a basis to reduce the approved increase for all classes
 - This is a relatively minor departure from a pure across the board class revenue increase and as such, it is not necessary to make any further adjustments

CAC Proposals

CAC Comments:

- CAC argues that Manitoba Hydro is behind the curve in terms of good asset management practices
 - Manitoba Hydro's historical reliability performance and asset replacement rates provide evidence that aggressive replacement of these assets prior to the end of their serviceable lives was not required.
 - Due to the timing and magnitude of the original installation of the distribution assets, the existing replacement rates are no longer adequate and will need to be increased.
 - Manitoba Hydro has also taken various steps to enhance the sophistication and accuracy of assessing the condition of its generation, transmission and distribution assets.
 - Prioritization of the overall capital portfolio considers safety, reliability, customer requirements, compliance with regulation, environmental and financial impacts including risk of deferral.

CAC Proposals:

- CAC's proposal is premised on the notion that ratepayers should not be required to bear the burden of the impact of Wuskwatim coming into service and the drop in export revenues in the opportunity market
 - Forecasts are always prepared with the best information available at the time the forecasts were prepared. Changes in opportunity market was not predicted by any party:
 - Game Changer
 - CAC has not produced any evidence suggesting that anyone predicted or forecasted a 41.7% drop in extra-provincial revenues or a 54.3% drop in cost of natural gas
 - Dunsky agreed – “Worldwide economic crises happen and we can't forecast them”
 - Reasonable to expect Manitoba Hydro to do its part to limit costs before seeking rate increases and Manitoba Hydro is doing its part
 - There are limits as to what can be achieved through cost constraints- “you can't cut your way to prosperity”. Manitoba Hydro's priority is to keep the lights on.

CAC Proposals:

- CAC – Wuskwatim
 - Capital costs escalated from initial estimate to in-service date
 - Wuskwatim needed for domestic load in 2013
 - Wuskwatim was constructed to serve demand generated by ratepayers
 - Manitoba Hydro's mandate is to serve the load and Wuskwatim facilitates that purpose
 - It is fair to look back and determine if there are lessons to be learned, particularly with respect to the construction of Wuskwatim
 - Two significant differences from the period of Limestone:
 - Wuskwatim project was the first in which Manitoba Hydro engaged in a partnership framework
 - Significant increases in the degree of rigour required environmentally as compared to the past

CAC Proposals:

➤ Lessons learned from Wuskwatim:

- Costs have increased significantly due to the requirement to have available more engineering and environmental information earlier in the pre-construction process
- Considerable time is required with regulators and affected communities to ensure project scope is well defined, understood and agreed to by the relevant parties
- Preparation and endorsement of agreements are time consuming and difficult to schedule. Timing needs to be managed carefully with engineering, regulatory and procurement processes
- Moving supporting infrastructure design and construction activities into separate earlier projects helps protect in-service dates and reduces construction delay risk
- New approaches to contract frameworks improve alignment with prevailing market conditions, help manage risks associated with certain aspects of major projects, attract contractor interest and provide incentives for contractors
- Market research on craft labour and heavy construction improves recruitment and retention of craft labour worker and allows for customizing contracting strategies
- Design and construction of camps have evolved improving craft labour recruitment, retention and productivity

Treatment of Accumulated Depreciation Variance

- CAC discussed the appropriate treatment of the accumulated depreciation variance, which was inappropriately described as a “refund”
 - Given the very long lives of Manitoba Hydro's property, plant and equipment assets, positive and negative variances will build up in accumulated depreciation over time
 - These variances are incorporated on a go forward basis by way of new depreciation rates each time a study is performed (every 5 years)
 - Changes in assumptions and service lives are not to be considered errors that should be collected or refunded to prior customers as the information supporting the latest assumptions did not exist at the time of previous studies
 - Mr. Bowman accepted the proposed treatment of the accumulated depreciation variance as recommended by Manitoba Hydro

Treatment of Accumulated Depreciation Variance

- The \$594 million variance has been accumulated over a long period of time, using depreciation rates that were based on previous studies
- Variance is nothing more than a theoretical calculation
- Interim step of a two part calculation:
 - Determine an updated depreciation rate by taking the present day net book value of an asset and amortize that net book value over the remaining life of the asset
 - Present what the net book value would have looked like had Manitoba Hydro applied the new depreciation rates since the acquisition of the asset

Treatment of Accumulated Depreciation Variance

- Manitoba Hydro prefers an approach to handling the variance that recognizes the long-term nature of the assets and that depreciation estimates will continue to change over time as new information becomes available in the future
- If the net variance in accumulated depreciation was to be amortized over a shorter period of time, revenue requirements could be reduced during the timeframe of the amortization, but a significant increase in revenue requirement would be experienced when the net surplus was depleted
- Such treatment would contribute to rate volatility for customers

Curtable Rate Program

Curtailed Rate Program

- CRP has been in existence since mid-1990's, providing benefit to both Manitoba Hydro and participating customers
- Greatest benefit for Manitoba Hydro is during peak times when Manitoba Hydro's capacity surplus is most vulnerable
- Greatest benefit for customers is by way of a monthly credit which is received regardless of whether curtailed load has been called upon or not
- For Manitoba Hydro, CRP services 2 general purposes:
 - Minimize disruption to firm load in the event of a contingency or disturbance
 - Maintain a sufficient level of planning and operating reserves to maintain reliable operation of the bulk electric system and compliance to NERC reliability standards

Curtailed Rate Program

- Customers wanting to participate must provide a minimum of 5MW of curtailable load
- There are four different curtailment options, Options A, C, R and E,
- Each option has different notice period provisions and different number and duration of curtailment occurrences
- 3 customers on CRP = 230 MW total contracted curtailable load
- 2011/12 – a total of \$5.8 million credited to customers on bills

Curtailed Rate Program

- Changes to CRP Terms and Conditions:
 - Reduction in overall subscription cap
 - Option R – cap reduced from 100 MW to 50 MW
 - Option A & C – combined cap reduced from 230 MW to 180 MW for Option A load assuming Option C load converts to Option A
 - Option A & C – combined cap reduced from 230 MW to 150 MW for Option A load if Option C switches to firm service
 - Elimination of Options C and CE
 - Change to the defined peak and off-peak period hours to be consistent with the current MISO definitions

Curtailed Rate Program

- Reasons for changes:
 - Contingency reserve sharing arrangement with MISO effective January 1, 2010 reduces Manitoba Hydro's requirement for contingency reserves = therefore Manitoba Hydro no longer needs as much Option A load
 - Option C is rarely used and is being eliminated = the one hour notice period to curtail is too long resulting in Manitoba Hydro seeking other means to deal with the contingency
 - Other reasons outlined in PUB/MH I-141 a), CAC/MH I-84 c) and PUB/MH II 99 b) and pages 40-43 of Rebuttal
- Current level of subscriptions of CRP load meets Manitoba Hydro's near term contingency reserve obligation requirement and reliability needs

Curtaile Rate Program

- Manitoba Hydro recognizes the amount of investment customers have provided to participate in the program which is why caps are not being reduced lower than the amount of curtailable load currently subscribed
- Manitoba Hydro recognizes that the reduction in the global subscription cap means that new customers will not be able to avail themselves of the discounts offered by the program, however, expanding participation at this time does not provide benefits to Manitoba hydro and other ratepayers commensurate with the program discounts
- Manitoba Hydro remains open to discussion with all its industrial customers regarding other approaches and rate options that could identify mutual benefits
- At such time that market conditions improve to a level that can re-balance the win-win nature of the CRP, Manitoba Hydro could consider increasing the caps to the program

Curtailed Rate Program

- MIPUG comments on Industrial rates offered by Entergy (Louisiana) Electrochemical Energy Intensive rate
 - Manitoba Hydro does not have excess capacity for which it is unable to find a market and therefore does not have to discount rates for load retention
- MIPUG suggest that export **energy** related benefits can be realized from having all types of CRP load
 - Option R load frees up hydro generation for market transactions in the opportunity energy and capacity market.
 - Option A load increases the amount of *capacity* for sale in the firm export markets

Surplus Energy Program

Surplus Energy Program

- The SEP has been in place as a temporary rate offering since 2000, typically with 5-year sunsets and new approval required to extend the program
- Available to customers who want to designate their load as interruptible
- Revenue neutral program
- Benefits customers by offering a choice and access to surplus energy at prices similar to those paid by opportunity export customers
- Benefits Manitoba Hydro by making available to market, excess capacity to domestic customers at similar to opportunity export prices and, in times of excess water availability, the market surplus that would otherwise go unsold

Surplus Energy Program

- 3 options available:
 - Industrial load customers whose monthly demand = 1,000 kVa or greater
 - Customers may only designate 25% of load as interruptible
 - Heating load customers
 - Must have on-site alternate backup energy source to provide power in the event surplus energy is not available or should customers find SEP prices too high
 - Intermittent industrial load customers
 - Must have on-site alternate backup energy source to provide power in the event surplus energy is not available or should customers find SEP prices too high

Surplus Energy Program

- SEP prices are determined each week for the following Monday to Sunday period and are submitted to the PUB for approval
- SEP rates are set for three pricing periods (peak, shoulder and off-peak) which hours differ from summer season to winter season
- Manitoba Hydro application:
 - SEP be made a permanent rate offering
 - Option 1 customers be allowed to have a different Reference Demand for each of the three pricing periods
 - The requirement of an Engineer to seal the weekly SEP rates filed with the PUB be discontinued as the preparation of SEP rates is not supervised by an engineer nor is the schedule an engineering document
- Manitoba Hydro expects that the weekly SEP rates will continue to be filed under the usual process with the exclusion of the Engineer's seal

Diesel Rates

Diesel Rates

- Manitoba Hydro serves four remote communities by diesel generation and distribution systems (Shamattawa, Tadoule Lake, Brochet and Lac Brochet)
- 740 customers broken down as follows:
 - 75% Residential
 - 15% General Service non-Government
 - 10% Government or First Nation Education Accounts
- 2012/13 – total sales forecasted to be 13.5 million kW.h = 1/16 of one percent of Manitoba Hydro's sales to all domestic customers
- Costs to serve the diesel communities are much higher than costs to serve customers from the grid due to the isolation of the communities, the small population served and the cost of facilities and fuel

Diesel Rates

- In 2011/12, total cost to provide service (excluding capital costs) = 53.5 cents/kW.h
 - Residential customers
 - Identical to grid rates
 - Recover only 12% of cost to serve
 - Limited to 60 amp service which covers all requirements other than electric heat which is not a permitted use
 - General Service non-Government customers
 - Access to grid rates for the first 2,000 kW.h per month of usage
 - 37.3 cents / kW.h over 2,000 kW.h of usage (since January 2011 recovers only 2/3 of estimated full variable cost of providing service)
 - Overall rates charged recovers approximately 42% of cost to serve
 - No service level restrictions
 - Government and First Nation Education Accounts
 - Rates charged intended to recover full cost of providing service
- Costs not recovered from Residential and General Service non-Government rates are recovered from two sources:
 - A Surcharge applied to the rate for Government customers, and
 - Manitoba Hydro by extension all other Manitoba Hydro ratepayers

Diesel Rates

- Grid rates applies to Residential and General Service non-Government usage up to 2,000 kW.h / month covers 68% of total usage
- General Service non-Government usage in excess of 2,000 kW.h represents some 16% of total usage
- Government and First Nation Education Accounts represents a further 16% of total usage
- No proposal by Manitoba Hydro for changes to diesel rates effective April 1, 2013
- Manitoba Hydro's intentions for a further diesel rate application will be communicated to the PUB as soon as they are known
- No intervenor has suggested that the 6.5% rate increase effective September 1, 2012 should not be approved

Diesel Rates

- Manitoba Hydro requests final approval of the September 1, 2012 interim increase of 6.5%
- Although rates are subsidized by other general consumers, Manitoba Hydro views these rates as fair and reasonable:
 - PUB Order 148/11 approved the extension of equivalent to grid rates for all Residential use within the 60 amp service limitation
 - PUB Order 134/10 set the rate for General Service non-Government usage in excess of 2,000 kW.h and interim rate is equal to the cumulative increases to grid rates. This is a reasonable tradeoff to recognize intent of Order 134/10 and cost increases since that time
 - The interim approved rate for Government customers incorporates the full operating cost of providing service and an amount equal to \$1.68 per kW.h to subsidize the provision of service to the classes served below cost (this rate does not cover the full cost of the subsidies) = \$2.27 per kW.h
 - The current extent of subsidy provided by other ratepayers to usage in the Diesel Zone while representing a significant portion of Diesel Zone cost, is still small compared to the overall revenues of Manitoba Hydro.

Finalization of Interim Rate Orders

- Diesel orders implemented on an interim basis since 2004:

<u>Order No.</u>	<u>Date</u>	<u>Remote Communities Served by Diesel Generation</u>
17/04	Feb. 6, 2004	Increase in Electric Rates in Remote Communities Served by Diesel Generation
46/04	Mar. 25, 2004	Increases in Electric Rates in Remote Communities Served by Diesel Generation resulting from Board Order 17/04
159/04	Dec. 22, 2004	New Electricity Rates in Remote Communities Served by Diesel Generation
176/06	Dec. 21, 2006	New Electricity Rates in Remote Communities Served by Diesel Generation
1/10	Jan. 5, 2010	Review of Issues Related to Current Electricity Rates Charged in Remote Communities Served by Diesel Generation
134/10	Dec. 22, 2010	Increase in Electric Rates in Remote Communities Served by Diesel Generation
1/11	Jan. 4, 2011	New Electricity Rates in Remote Communities Served by Diesel Generation Effective January 1, 2011 to December 31, 2011 flowing from BO 134/10
148/11	Oct. 20, 2011	Removal of the Residential Tail Block Effective November 1, 2011

Finalization of Interim Rate Orders

- Manitoba Hydro's understanding that the necessary documents required to file two copies of the settlement agreement with the PUB have now been completed and are in possession of MKO
- Manitoba Hydro cannot advise why it has not been provided true copies of the signed agreement nor provide a timeline for receipt of true copies
- Order 134/10 requested that Manitoba Hydro obtain consents of all parties to the Settlement Agreement and CAC when seeking an order to confirm all interim Diesel Orders
- Parties are reluctant, for various reasons, to provide consents
- No parties have raised an objection or concern about finalizing interim Orders
- Manitoba Hydro's position is that there is no need for a further process other than the PUB's own deliberation to finalize the interim orders, once true copies of the Settlement agreement and supporting documentation has been provided to the PUB

Revenue Requirement Issues Associated with 2014/15 and Beyond

IFRS Implementation Deferred to 2015/16

- Original Application based on IFF11-2, assumed transition to IFRS in 2013/14
 - Forecast that upon adoption of IFRS, there would be a retained earnings write-off of approximately \$276 million related to electric operations
 - Forecast impact on net income would be reduction of approximately \$11 million
- On September 19, 2012, the Accounting Standards Board of Canada extended optional transition to January 1, 2014
 - No IFRS impacts contained in 2012/13 and 2013/14
 - IFF12 assumed a retained earning write-off of approximately \$257 million upon transition to IFRS in 2014/15 for electric operations
 - Forecast impact on net income in 2014/15 was an increase of \$5 million for electric operation

IFRS Implementation Deferred to 2015/16

- Manitoba Hydro provided updates to PUB on the status of the IASB rate regulated activities project a number of times during the course of the hearing
- Subsequent to end of evidentiary portion of hearing, the IASB decided that it would proceed with the issuance of an exposure draft in March of 2013 which would propose an interim rate-regulated standard be finalized for first-time adopters of IFRS by December 2013.
- CASB determined on February 13, 2013 that it would extend the existing deferral of the IFRS changeover date for Canadian rate-regulated entities to January 1, 2015
- Manitoba Hydro can advise on a preliminary basis that it intends to adopt the further deferral and transition to IFRS during 2015/16

Use of IFRS for Rate Setting

- Manitoba Hydro has been making changes that are necessary and permitted under Canadian GAAP gradually over the past number of years in an effort to transition them into customer rates and moderate the impact on customers
- Manitoba Hydro has deferred the implementation of IFRS for four successive years as permitted by CASB
- US GAAP is not an allowable option for Manitoba Hydro
- Majority of Canadian utilities that have migrated to US GAAP will be required to transition to IFRS after January 1, 2015 when their three year exemptions that had been granted by the provincial securities regulators expire

Use of IFRS for Rate Setting

- Manitoba Hydro has not had to pursue the measures adopted in other jurisdictions because the one-time adjustments to retained earnings for Manitoba Hydro are quite manageable as are the future net income impacts = no rate increases are required in the short term
- Manitoba Hydro has taken measures in terms of adopting the optional transition date deferrals as provided by CASB and avoiding the move to US GAAP so as to avoid negative impacts on its US hedge accounting practices
- Most important factors to consider are limited impacts on Manitoba Hydro of the transition to IFRS and the use of the Cost of Service rate-setting approach in Manitoba

IFRS Impacts on Manitoba Hydro

- Impact of IFRS on electric net income is less than \$5 million in any year in the next 10 years = it will not affect the required electric rate increases in the future
- Manitoba Hydro has demonstrated that the transition to IFRS should not trigger the requirement for a separate set of regulatory financial statements or alternate set of calculations to assess rate requirements
- Manitoba Hydro's cost of service methodology coupled with Manitoba Hydro's approach of implementing regular and reasonable rate increases has the flexibility to recognize changes in costs and levels of retained earning = transition these changes into rates gradually over time, while at the same time ensuring the maintenance of an adequate financial structure over the long-term

IFRS Impacts on Manitoba Hydro

- One of the benefits of the cost of service rate setting methodology is that the PUB uses the same set of general purpose financial statements and information to set rates as Manitoba Hydro, the Manitoba Hydro Electric Board and other external users of the statements (such as credit rating agencies)
- This reduces the potential confusion associated with different users looking at multiple sets of financial information to make decisions, evaluate financial performance and assess rate requirements
- Improves transparency of the rate setting process by aligning the basis used to set rates and report results
- Significant administrative costs associated with reconciling between the different sets of financial information and maintaining duplicate transactional accounting that would be necessary to produce reliable and complete regulatory reporting

Premature for Decisions on IFRS for Rate-Setting

- It is premature for the PUB to make any determinations about the implementation of IFRS for rate setting due to the current uncertainty regarding the exact requirements of a potential interim standard on rate-regulated accounting, the continuation of rate-regulated accounting in the longer term, and an additional one year deferral of IFRS
- Manitoba Hydro will continue to monitor the development of an interim standard and provide updates and recommendations to the PUB with respect to the implementation of IFRS for rate-setting purposes at the appropriate time

MIPUG IFRS Impact Concerns

- Reasons for changes in overhead capitalization = acceptable under Canadian GAAP and intended to make Manitoba Hydro's practices consistent with other Canadian electric utilities
- Manitoba Hydro has clear intention to continue to include net salvage in depreciation rates until IFRS is implemented
- Manitoba Hydro's current practice under Canadian GAAP is to defer and amortize DSM expenditures
- Under IFRS, with no rate-regulated accounting, DSM expenditures will be expensed as incurred
 - If rate regulated accounting continues under IFRS, no longer an issue

ELG vs ASL

- Manitoba Hydro plans to make a change in the depreciation methodology to ELG method upon adoption of IFRS (now deferred to 2015/16)
- Statutory Framework
 - Only Part I of The Public Utilities Board Act, dealing with the conduct of a hearing, has application to Manitoba Hydro
 - The Crown Corporations Public Review and Accountability Act expressly limits the PUB's jurisdiction to the fixing of rates for service, being the prices charged with respect to the provision of power
 - This Board has never fixed Manitoba Hydro's depreciation rates nor is it authorized to do so

ELG vs ASL

- IFRS requirement that any gains and losses on the disposal or retirement of an asset must be recognized in net income immediately
- ASL
 - Calculates depreciation expense based on the average life of all assets within each class
 - Assets are depreciated over a longer or shorter timeframe than their expected service life (except for those assets which have a life exactly equal to the average service life of that group)
 - Uses an averaging approach and it is necessary to define and identify depreciable components quite narrowly to meet IFRS requirement that a group of assets is depreciated in a way that appropriately reflects the useful life of the included parts

ELG vs ASL

- ELG

- Recognizes that similar assets within a group will have different service lives and addresses this issue by developing depreciation rates with specific consideration of the expected retirement pattern for each asset within a class
- Every asset in the class is depreciated over its own expected service life
- Every asset is expected to be fully depreciated (not over or under depreciated) when it is removed from service – effectively minimizing the extent of gains and losses
- Resulting depreciation expense calculations are more robust
- Resulting depreciation expense are in full compliance with IFRS
- Resulting depreciation expense minimizes retirement gains or losses that must be recognized in current income
- Provides a more robust matching of annual depreciation with the consumption of the depreciable assets which is more desirable both from an intergenerational equity and an accounting perspective

ELG vs ASL

- ELG method produces a smoother overall expense flow than ASL when the impacts of gains and losses are considered = contributes to rate stability for customers
- While ELG depreciation rate may be higher than the current ASL rate in the early years, this represents improved matching of depreciation with the consumption of the asset
- The overall objective is to match annual depreciation expense with the consumption of the asset = ELG method best satisfies this objective
- The current Manitoba Hydro ASL rate is not the ASL rate that would be required upon adoption of IFRS
- Manitoba Hydro would be required under IFRS to further componentize the assets into similar life groups

ELG vs ASL

- Depreciation is an estimate and the selection of the IOWA curve and determination of the corresponding depreciation rate is not based strictly on an analysis of historical retirement data
- IOWA curve is selected using professional judgment, considering:
 - Historical analysis
 - Discussion with management to determine whether, and the degree to which historical results are predictive of future retirement activity
 - Knowledge of the industry
 - Peer analysis
- ELG procedure will produce a pattern of depreciation expense that aligns reasonably well with the actual assets in use and useful during any given period

ELG vs ASL

- At the time of preparation of IFF12, ELG based rates were not available for the Wuskwatim generating station
- Manitoba Hydro had not yet finalized the componentization of costs and it was necessary to make assumptions for purposes of forecasting IFRS compliant depreciation expense
- Gannet Flemming considered the ASL rates to be appropriate because Wuskwatim was not yet in service at the time of the Depreciation Study and the final distribution of costs by install year and component was not yet known
- An ELG based depreciation rate will be calculated in the next depreciation study
- Considering the long expected life of Wuskwatim, the variance accumulated by use of a different method for the first few years of its life is not expected to have a material impact on the depreciation rates for the remainder of its useful life.

ELG vs ASL

- The intent of IFF12 is not to provide a precise calculation of depreciation expense beyond the two test years
- Manitoba Hydro applies the current depreciation rates to the forecast period for purposes of the IFF
- It is expected that over the next twenty years, depreciation rates will be recalculated a number of times, and will change as assets age, as existing depreciation variances become fully amortized and as new assets are added
- With ELG, depreciation rates decline over time as assets age and it is reasonable to assume that by the time Keeyask and Conawapa are constructed, depreciation rates in other areas will have declined therefore providing an offset

ELG vs ASL

- In most circumstances, Manitoba Hydro does capitalize replacement assets
- Manitoba Hydro's economic assessment follows the well-established, fundamental economic evaluation concept which is based on discounted incremental cash flow analysis of project benefits and costs, including the cash outlay for construction
- The notion of an industry standard is not reflective of reality. The nature and level of component breakdown varies between utilities.

ELG vs ASL

- ELG is a superior methodology to ASL both for financial reporting and rate-setting purposes
- ELG reduces the amount of gains and losses that must be recorded in net income and therefore contributes to rate stability for customers
- ELG improves inter-generational equity by matching the amortization of costs to the life of the assets in use, ensuring that each generation of ratepayers is charged only for the assets of benefit to that generation
- Unnecessary to incur the additional ongoing administrative costs which would be required to componentize Manitoba Hydro's assets to a much finer level of granularity in order to implement ASL on an IFRS compliant basis = ELG delivers a similar level of depreciation expense

Demand Side Management

Demand Side Management

- DSM has been and continues to be a significant component of Manitoba Hydro's strategy in fulfilling the Corporation's mandate and responsibilities and has played a key role in meeting Manitoba's electricity demands for over 20 years

- Manitoba Hydro's President and CEO

"I'm a real believer in the value of managing demand by encouraging energy effic -- efficiency and conservation." (Transcript pg. 269)

- Ms. Morrison, Division Manager Responsible for Delivery of DSM

"Manitoba Hydro's long-term and aggressive commitment to demand-side management has resulted in over 90% awareness of the Power Smart brand in Manitoba, with over 60% of residential customers able to recall unaided Manitoba Hydro programs available to them to help manage their energy bills, and one-third (1/3) of customers indicating that they have participated in at least one (1) program." (Transcript pg. 2734)

Demand Side Management

- Manitoba Hydro is a recognized leader in DSM
- Manitoba Hydro is frequently invited to consult and provide advice to other utilities, government and industry associations with respect to commercial and residential Power Smart program design and marketing
- Manitoba Hydro's Power Smart Residential Loan program was recently selected as a Canadian example of best practices by the International Energy Association

Demand Side Management

- Manitoba Hydro has invested over \$438 million in Power Smart Initiatives over the last 23 years
- Ratepayers have saved 1,966 gigawatt hours and 583 megawatts of electricity as at March 31, 2012 = \$62 million of annual electricity bill savings for those customers participating
- Manitoba Hydro is not stopping
- Manitoba Hydro continues to have programs in the market today to help customers

Incentive Based

- Home Insulation Program
- Water and Energy Saver Package Program
- Low Income/Hard-to-Reach Program
- Refrigerator Retirement Program
- Commercial Lighting Program
- Commercial Custom Measures Program
- Commercial Windows Program
- Commercial HVAC – Chillers
- Commercial Refrigeration Program
- Commercial Insulation Program
- Commercial Earth Power Program
- New Buildings Program
- Commercial Building Optimization Program
- Internal Retrofit Program
- Commercial Kitchen Appliance Program
- Commercial Clothes Washers Program
- Network Energy Manager Program
- Commercial HVAC - CO2 Sensors
- Commercial HVAC – Boilers

- Performance Optimization Program
- Industrial Natural Gas Optimization Program
- Curtable Rates
- Bioenergy Optimization Program

Financial Loan Programs

- Power Smart Residential Loan Program
- Residential Earth Power Program (Loan)
- PS Pays Financing

Other Program Support

- Recreation Facility Survey and Guide
- Religious Buildings Initiative

Demand Side Management:

- Manitoba Hydro's process for identifying which DSM opportunities to pursue:
 - Two high level processes:
 - Screening process
 - Program design process
 - Screening Process:
 - A high level benefit/cost assessment undertaken
 - Consideration is NOT given to who pays and for any program administration costs
 - MRC test used (High level assessment)

$$\text{MRC} = \frac{\text{Present value of the avoided cost over the life of the technology}}{\text{Incremental cost of the energy efficient technology}}$$

- Manitoba Hydro is very liberal in using MRC to include all opportunities which may be close to passing MRC

Demand Side Management

- Manitoba Hydro's process for identifying which DSM opportunities to pursue:
 - Program Design Process
 - Consideration is given to who pays for implementing the DSM opportunity (how the total cost of the DSM opportunity is shared between the participating customer and all ratepayers)
 - Manitoba Hydro uses a number of metrics to assess program design options, including:
 - Metrics include customer payback periods, LUC test, TRC test, Societal Cost Test and RIM
 - Each metric provides useful information and metrics are used collectively
 - Manitoba Hydro does NOT use RIM or LUC as “go/no go” rules

Demand Side Management

- Mr. Dunsky's focus is on pursuing DSM opportunities and assessing economics of those DSM opportunities by only considering the utility's cost
- Mr. Dunsky appears to only focus on average cost of a DSM portfolio as opposed to assessing the marginal cost of each DSM opportunity
- Manitoba Hydro is confident that it is taking the appropriate approach to pursuing all economic DSM opportunities
- Ultimately, ratepayers pay for the total cost of DSM whether it is through rates or investments made by participating customers
- A DSM program design with a RIM of less than one = not economic at that particular design. **However**, in the DSM decision making process, Manitoba Hydro recognizes that there are other considerations and RIM is used as a guideline

Demand Side Management

- Although a component of the industry has moved away from using RIM, this shift doesn't mean the RIM metric has no value in DSM decision making for all entities.
- Manitoba Hydro's legislated mandate includes the promotion of economy and efficiency in the end use of power (section 2 *The Manitoba Hydro Act*)
- DSM programming is generally provided either through a traditional regional utility or a non-utility entity created solely for the purpose of delivering DSM programming
- Non-utility entities delivering DSM programming would not be required to consider the equity issue associated with who pays for DSM initiatives
- Where DSM targets are established by third parties, one would expect the role of RIM to be greatly diminished because the focus is on achieving targets

Demand Side Management

- Manitoba Hydro's marginal cost value methodology is appropriate for Manitoba Hydro's system where incremental energy savings in Manitoba generally result in incremental exports to markets outside of Manitoba
- Manitoba Hydro's marginal generation cost/value estimates consider the value on the export market of both generation and energy capacity = generation deferral component to the generation marginal value (deferred generation is located in the export market rather than within Manitoba)
- Manitoba Hydro does not assume a flat (100%) load factor in the detailed DSM program analysis but takes into account the differential between winter energy, summer energy and contribution to winter peak capacity and summer peak capacity
- Manitoba Hydro appropriately considers load profiles / load factors in its detailed DSM program analysis

Demand Side Management

- Care must be used in comparing generation marginal costs to supply option
- Levelized costs are in future dollars based on in-service dates for stations (include increases due to inflation between today and projected in-service date)
- Manitoba Hydro Power Smart plan consists of pursuing all economic opportunities and regularly revisit programming to assess potential economic opportunities
- Relevant DSM cost is the total of the utility's investment together with the participating customer's cost
- It is the ratepayers who ultimately pay for the DSM measure, either as a ratepayer alone or as a ratepayer and participant

Demand Side Management

- DSM is different from new generation options in there is no additional domestic revenue associated with DSM, while there is with new generation
- With DSM, Manitoba Hydro is able to export the conserved energy in the export market and therefore, there is marginal increased revenue with DSM.
- Overall, in assessing DSM options against new generation options, the economic assessment must include the impact to revenues as well as costs.
- Where marginal cost is primarily determined by the electricity export market, it is only economic for the Corporation to invest in DSM measures sufficiently justified by the difference between the electricity export value and the value realized by selling the energy in the domestic market (adjusting for the value associated with deferring distribution and transmission investments)
- From an economic perspective, the objective of a Crown Corporation is to optimize the benefits to its rate payers by pursuing all economic DSM opportunities and investing in those opportunities to the degree whereby all customers are economically better off in aggregate

Demand Side Management

- Each DSM opportunity is an opportunity on its own = it is the economics of each opportunity that is relevant
- The overall average cost of a DSM plan is simply the end result of a number of economic DSM decisions with some being more economic than others
- Parties must use caution when by only referring to the average cost of a DSM plan and only the utility's investment in a DSM opportunity
- Manitoba Hydro's DSM decision making process considers:
 - The total cost of DSM opportunities
 - The economics of individual DSM opportunities (as opposed to the average cost of a DSM portfolio)
 - Equity issues, including ensuring that the Power Smart Plan has a good balance of DSM programming available for all customers and an appropriate cost sharing is achieved between participating customer and all ratepayers.

Demand Side Management

- A savings ratio metric is generally valid for comparing energy conservation efforts among regions with similar load characteristics and having similar marginal cost considerations
- Caution must be exercised in using the metric for comparisons among other regions as the savings ratio metric can produce misleading conclusions
- Manitoba Hydro recognizes that all metrics must be used with caution and therefore, the Corporation has concluded that best approach to assessing its efforts relative to other regions would be best accomplished by comparing its specific DSM programming against DSM programming in other comparable regions

Demand Side Management

- Declining targets do not mean a declining commitment to energy conservation
- Declining targets reflect the Corporation's long term market engagement and diminishing availability of economic opportunities
- Manitoba Hydro agrees that new technologies and evolutions of energy efficient technologies can be expected in the future and it reviews and incorporates those technologies into its DSM Plan as they become available
- Manitoba Hydro has launched the low income energy efficiency program
- Manitoba Hydro is working with local neighborhood development organizations, going door to door to speak to energy efficiency opportunities, specifically targeted. The goal is to identify opportunities for those eligible for the Low Income Energy Efficiency Program, and promote other Power Smart Programs such as PAYS and Home Insulation for those not qualifying for free insulation upgrades.

Demand Side Management

- Manitoba Hydro offers a number of on-going programs, which Mr. Dunsky confirmed are not limited by income constraints
- Mr. Dunsky suggests “sales” are an important component of a successful DSM approach
- Manitoba Hydro has a specialized Power Smart Sales group which focuses on key commercial sectors
- Residential customers are reached through a variety of sales strategies, including for some offerings door to door in targeted areas such as the Water & Energy Saver Program
- The sales strategy is a component of the overall program design and supported by the business case, however door-to-door sales is cost prohibitive

Demand Side Management

- Allocation of monies to DSM
- Manitoba Hydro's rates for service are regulated by the PUB pursuant to *The Crown Corporations Public Review and Accountability Act*
- Case of Manitoba Keewatinowi Okimakanak Inc v. Manitoba Hydro Electric Board
 - Question of whether PUB could compel Manitoba Hydro to expend funds for a particular purpose
 - The Court of Appeal stated:

“It must be emphasized at the outset that the jurisdiction of the Board is expressly limited to the fixing of rates. Section 26(1) of the CCPRA makes it clear that “rates for service” in the case of Manitoba Hydro simply means the prices charged by that corporation with respect to the provision of power.”

Demand Side Management

- *The Energy Savings Act* was enacted in June 2012
- *The Energy Savings Act* has specifically directed that Manitoba Hydro shall develop an energy efficiency plan in consultation with the Minister responsible for Manitoba Hydro (section 7(1))
- *The Energy Savings Act* specifically directs that energy efficiency targets and a strategy for achieving the energy efficiency targets will be included as part of the Plan required under section 7(1) (section 7(2))

Demand Side Management

- Manitoba Hydro is confident it's DSM approach is appropriate and in the best interest of customers
- Manitoba Hydro continues to pursue all economic DSM opportunities and intends to do so into the foreseeable future
- Manitoba Hydro's targets are reassessed every year and these targets are based upon achievable and identifiable economic market opportunities
- Manitoba Hydro shares the view that it is important to establish aggressive DSM targets but it is important to establish realistic economic DSM targets based on sound business practices and identifiable opportunities

Fuel Switching Report

Fuel Switching

- Manitoba Hydro recognizes that there are benefits when customers use natural gas for space heating and, under some instances, water heating
- Manitoba Hydro has initiated a Heating Education Campaign to enhance customers' awareness of factors relevant to their decision on space and water heating
- The use of an educational campaign is more direct, targeting specifically those customers in gas available areas, and much clearer for customers to understand and act upon than any rate design intervention options
- Manitoba Hydro plans to continue monitoring the impact of its educational campaign and further considerations may be given to using additional intervention tools

Residential Inverted Rates

Inverted Rates

- In principle, inverted rates with a tail block based on marginal cost provides an efficient price signal
- Manitoba Hydro's current application does not request inverted residential rates
- High level response to inquiry concerning alternatives which could be considered in implementing a Residential inverted rate while minimizing adverse impacts on electric heat customers is provided in PUB/MH II-102a)
- Manitoba Hydro's position is that Residential inverted rates continue to be a subject of interest, but the development of a proposal, not a matter of urgency
- Open to enter into dialogue with intervenors on the subject of inverted rates, but not until such time as there has been resolution of the more immediate issues which have been deferred from this current proceeding

Electronic Spreadsheets

Electronic Spreadsheets

- Steps taken with respect to electronic spreadsheets:
 - In 2006, regulatory submissions made available electronically in PDF format
 - In current proceedings, electronic spreadsheets in Excel format provided with respect to:
 - Bill Frequency Tables for residential class (GAC/MH I-4a)
 - Historical and forecast General Consumer Sales data from 1990-2031 (CAC/MH I-63B)
 - Distribution of sales by hour 2006 – 2012 (GAC/MH I-26)
 - Hourly market pricing at the MH Delivery point (GAC/MH I-8f)
 - The Average Price Calculation detailing domestic and extra-provincial revenues, sales, prices, supply sources and volumes for the years 2007/08 – 2030/31 (CAC/MH I-111)
 - Spreadsheets provided contained data only (no formulas) and not subject to concerns

Electronic Spreadsheets

- Manitoba Hydro's considerations when determining whether to place information in an electronic spreadsheet format (as opposed to pdf) on the public record is outlined in GAC/MH I-3a)
- Manitoba Hydro concerns with providing live spreadsheets:
 - Significant amount of time, effort and expense required to prepare models which remove meta data to be placed in the public domain
 - Parties would need to be educated in the use of these models
 - Alternative scenarios developed by third parties using the models would have to be verified
 - Some models contain commercially sensitive information
 - Provision of certain models infringe on third-party proprietary rights over models
- Where concerns do not exist or can be reasonably addressed, Manitoba Hydro will provide the information requested

Electronic Spreadsheets

- Manitoba Hydro has run specific scenarios using its models as requested by parties, has changed and run assumptions as requested by parties, and has provided updated results for all parties to examine
- These actions avoid confidentiality issues, avoids incurring expense of recreating models to remove meta data, avoids time and expense of educating third parties on how to use models, avoids Manitoba Hydro having to verify results of third party analysis
- What is the appropriate role of Intervenors and witnesses?
 - Test reasonableness of Manitoba Hydro rate proposals
 - Challenge Manitoba Hydro's thinking in an effort to ensure the end product reflects the public interest
- It is duplicative and expensive to pay external consultants to audit the work of Manitoba Hydro in the level of detail provided in application

Pointe du Bois

Pointe du Bois

- Presentation by Mr. Stokke did not purport to address Manitoba Hydro's rate proposal, rather, it challenged the determination of Manitoba Hydro's engineers charged with responsibility for dam safety –in a discussion outside the parameters of the GRA
- Manitoba Hydro believes it is important that the PUB understand that expenditures of this magnitude are always carefully examined by Manitoba Hydro and are never undertaken lightly
- Manitoba Hydro engaged in an extensive process encompassing assessment, planning, evaluation, design, consultation and obtaining required environmental and regulatory authorizations prior to making the decision to proceed with the Spillway Replacement Project

Pointe du Bois

- Determination was made that despite extensive repairs and upgrades over the years, major repair or replacement was required
- Manitoba Hydro listened to and considered concerns raised by Mr. Stokke and found no basis on which to alter any of its plans and actions related to the Spillway Replacement Project (Manitoba Hydro Exhibit #19)
- Manitoba Hydro provided additional information on the Pointe du Bois site through its responses to PUB Pre-Asks 5 to 23
- Manitoba Hydro has made the decision to proceed with the Spillway Replacement Project and defer the rebuilding of the Powerhouse, demonstrating a balance between commitment to employee, public and dam safety and the need to be fiscally responsible

Need for Current Information

Need for Current Information

- Manitoba Hydro acknowledges frustration regarding the currency of information before the PUB when issuing orders especially the sensitivity of near-term financial projections to sudden and significant changes in water supply condition and other variables during the regulatory process
- Typically Manitoba hydro would file for a rate increase and the hearing would be held during the fall and winter when water conditions are more stable
- Manitoba Hydro suggests that this problem will be mostly resolved once we are able to return to the typical cycle noted above
- Although Manitoba Hydro uses the most current information available in its general rate applications, conditions will change during the period of the regulatory process

Need for Current Information

- Manitoba Hydro updates the PUB with Quarterly Reports and provides an update on water supply and other conditions in its direct testimony
- Manitoba Hydro agrees that it is essential that the PUB have all the current information necessary upon which to make its decision
- Manitoba Hydro sets its rates based upon the long view and both favourable and unfavourable variations will occur in the regulatory timeframe – over time these will offset each other with only limited long term rate impacts

Conclusion

Conclusion

- The facts that have been presented during the GRA clearly demonstrate that final approvals of the requested rate increases and reinstatement of the 1% rate roll-back are required to:
 - Maintain net income and financial ratios during the test years at acceptable levels
 - Preserve the financial integrity of Manitoba Hydro for the period covered by the Application
 - Promote rate stability for customers by avoiding the need for larger or sudden rate increases in the future
- The proposed rate increases strike a delicate balance between financial integrity and customer sensitivity
- Manitoba Hydro is requesting that the PUB grant the rate relief that is requested in the application in full