

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-1**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by DBRS? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of Manitoba Hydro by DBRS as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Manitoba Hydro does not have a credit rating from the ratings agencies. It receives a flow through rating from the Provincial Government as its debt is guaranteed by the government.

For a specific reference, please see for example:

- Appendix 3.5 (Debt Management Strategy), page 5
- Appendix 4.1 (DBRS ratings report), page 1

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BCM-MIPUG-2**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by Moody's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of Manitoba Hydro by Moody's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-1.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-3**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by Standard & Poor's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of Manitoba Hydro by Standard & Poor's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-1.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-4**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade for the Province of Manitoba by DBRS? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of the Province of Manitoba by DBRS as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

The question, as posed, regards the full range of effects that go into the credit rating for the province. As such, it is unanswerable on the information available to the current proceeding. Further, as a full assessment of the province's finance, it is outside the scope of a PUB review, and relates to matter such as taxes, economic policy and the like that are beyond the jurisdiction of the PUB and unrelated to Hydro.

(b)

It must be recognized that there is no option for Hydro to impose 7.9% rate increases (or indeed even 3.36% rate increases) without changing the flows of income and capital in the province. As such, to assess the full impacts on the province of the two rate increase scenarios, it is necessary to consider the purposes to which the funds (whether it is 3.36% or 7.9%) would otherwise be used, such as investment by business, improved household economics for individuals, lower taxes or increased services for municipal governments, etc. as well as potential severe adverse effects like industrial plant closures.

If the 7.9% rate increase could be imposed to generate free money to Hydro without downstream consequences, obviously both Hydro and the province would be better off with the rate increase. However, this option is not available.

Given the realities of competing uses of funds and business competitiveness, it is not clear that a credit downgrade (or upgrade) is more or less likely with either a 7.9% rate increase or a 3.36% rate increase. It is expected that a rate increase on the order of 3.36% would be preferable from credit rating assessment of regulatory consistency, and would be less likely to harm customers. In order to depart from this expected pattern, it would reasonably be expected in a regulatory forum that Hydro would provide information showing the large new increase proposed does not do more harm than good – such information was not made available in the filed materials.

(c)

The direct consequences of a credit downgrade to the province are not clear. Obviously a lower credit rating is less preferable to a higher credit rating. But the issue of causation and consequence for higher interest rates and credit rating downgrades is far from clear. Broadly borrowers with lower credit ratings typically are tied to higher interest costs

However, as noted in the evidence of Mr. Coloaiacovo (pg. 31), Mr. Bowman (pg. 4-12 to 4-13) and Manitoba Hydro (PUB/MH-I-41a), Manitoba's cost of borrowing as a spread over both the federal government and the Ontario government improved following the S&P downgrade, i.e., it did not increase.

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BCM-MIPUG-5**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade for the Province of Manitoba by Moody's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of the Province of Manitoba by Moody's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-4.

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BCM-MIPUG-6**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade for the Province of Manitoba by Standard & Poor's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of the Province of Manitoba by Standard & Poor's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-4.

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BCM-MIPUG-7**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable as to how Manitoba Hydro's credit rating and the Province of Manitoba's credit rating are analyzed by various credit rating agencies.

RESPONSE:

(a)

The methodology used by S&P is provided in response to Manitoba Hydro 2017/18 & 2018/19 General Rate Application IR response MIPUG/MH I-8a-k and in particular in the attachments.

Mr. Bowman is not aware that the rating methodology for the other credit ratings agencies was put on the record in this proceeding.

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BCM-MIPUG-8**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable, as to the significance and effect of Manitoba Hydro being regarded by the credit rating agencies as the Province of Manitoba's largest contingent risk. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

First, the terminology of “contingent risk” is not the commonly used reference, but rather “contingent liability”. The definition of contingent liability is simply the necessary complement of a debt guarantee – when the Province guarantees Hydro’s debt, Hydro records a guarantor, the province records a contingent liability.

The concept of Hydro as the province’s largest contingent liability is a mathematical fact for DBRS and Moody’s, and has been for decades without any particular significance or effect.

Note that for S&P with its recently changed methodology, Hydro is not a contingent risk. S&P does not consider Hydro’s debt as being simply something that the province will be required to make good on given some “contingency”, S&P actively considers all of Hydro’s debt to be “tax supported” as per their definition shown at MIPUG/MH-I-8a-k attachment Glossary.

However, in making this adjustment to its methodology, S&P suggests they also consolidate Hydro’s revenues into those of the provincial government for the purposes of assessing whether the province can fulfill its debt obligations (see the attached Glossary definition of Consolidate Operating Revenue). Hydro provided no information regarding the mathematics of this calculation as the S&P reports were considered confidential. However, as Hydro is in a

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position where revenues can fully cover interest costs and normal capital reinvestment, and can in fact cover all capital investment after Keeyask is in service (a “balanced budget” in a government finance context) it is not clear that consolidating Hydro into the province’s assessment would not in practice be a net positive to the provincial rating if the province itself is running a persistent deficit (in fact this exact type of outcome is highlighted as a possibility in the S&P methodology reports when a stronger enterprise is consolidated into a weaker government entity).

Retrieve from Methodology For Rating Non-U.S. Local And Regional Governments¹

Criteria | Governments | International Public Finance: Methodology For Rating Non-U.S. Local And Regional Governments

- "The Time Dimension Of Standard & Poor's Credit Ratings," published Sept. 22, 2010.

B. Glossary

Local and regional government (LRG)

160. **Government-related entity (GRE).** Enterprises potentially affected by extraordinary government intervention during periods of stress, as defined in "Rating Government-Related Entities: Methodology And Assumptions," published on Dec. 9, 2010. GREs are often partially or totally controlled by a government (or governments), and they contribute to implementing policies or delivering key services to the population. However, we have observed that some entities with little or no government ownership might also benefit from extraordinary government support because of their systemic importance or their critical role as providers of crucial goods and services. In this article, GREs generally refers to companies either owned or controlled by LRGs.
161. **Stand-alone credit profile (SACP).** Reflects Standard & Poor's opinion of the entity's creditworthiness, before taking into account the potential for direct entity-specific extraordinary intervention from the entity's parent company or, in the case of a GRE, the government that controls or owns it.

Budgetary flexibility and budgetary performance

162. **Operating revenues.** Recurring revenues that an LRG receives. Operating revenues comprise taxes and nontax revenues, such as grants, operating subsidies, fines, fees for services, tariffs, rents, and other sources from which the LRG derives revenues. They exclude capital revenues, such as capital subsidies and proceeds from asset sales, and any revenues from borrowed funds.
163. **Adjusted operating revenues.** Operating revenues adjusted for material noncash or pass-through items.
164. **Consolidated operating revenues.** An LRG's operating revenues and the commercial revenues (comprising fees and sales, among others) generated by GREs that the LRG owns or controls, for which we include debt in the LRG's tax-supported debt ratio. We generally deduct from the GREs' revenues material sums that come from the LRG itself, such as a subsidy or service contract.
165. **Operating expenditures.** Correspond to the costs of an LRG's operations, its administration, and its provision of services to the population, directly or through other public bodies.
166. **Adjusted operating expenditures.** Operating expenditures adjusted for material noncash (provisions, depreciation) or pass-through items.
167. **Operating balance.** Equals adjusted operating revenues minus adjusted operating expenditures (including interest expense).
168. **Capital expenditures.** Typically cover the repair and replacement of existing infrastructure and the development of new infrastructure.
169. **Capital revenues.** Chiefly comprise proceeds from asset sales and capital grants.
170. **Balance after capital accounts.** Results from the adding of capital revenues to and the subtracting of capital expenditures from the operating balance.

Liquidity

171. **Free cash and liquid assets.** Liquid assets that are unrestricted, not needed to meet daily operating needs or planned capital costs in a forward-looking perspective, available to cover debt service over the next 12 months, and adjusted for market risk on noncash investments.

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¹ MIPUG/MH I-8a-k-Attachments, S&P Global Ratings, Pages 43-44.

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Criteria | Governments | International Public Finance: Methodology For Rating Non-U.S. Local And Regional Governments

Debt burden and contingent liabilities

172. **Interest payments.** Correspond to the amount of interest paid within a given budgetary period, including the interest component of financial leases.
173. **Debt service.** Equals interest payments plus the amount of principal repaid during a given budgetary timeframe, including the capital component of financial leases and short-term debt repaid during the period. We believe that debt service on a revolving credit line tends to be exaggerated if the full amount of turnover on the revolving line is recorded as repayment. Therefore, in our calculations, repayment under the revolving line would include only the maximum amount drawn under the line during the year, minus debt outstanding under the revolving line at year-end.
174. **Direct debt.** Comprises long- and short-term financial debt assumed directly by the borrower--loans, bonds, credits, and capitalized lease obligations--that an LRG is obliged to pay to another entity in accordance with an express agreement or for other legally binding reasons. It excludes guaranteed debt and the debt of GREs, unless serviced by the LRG on an ongoing basis. It includes debt serviced via subsidies from other levels of government, unless the legal obligation to service this debt is transferred to the other government.
175. **Guaranteed debt.** Financial debt on which the principal and interest payments are the responsibility of the LRG (as the guarantor), if the borrower that is primarily liable fails to repay the debt. If an LRG has to service the debt it has guaranteed, then we would include the guaranteed amount in the LRG's direct debt.
176. **Tax-supported debt.** The sum of the following items:
 - Direct debt of the LRG;
 - Guaranteed debt of GREs or other entities that are not self-supporting;
 - Nonguaranteed debt of GREs that are not self-supporting;
 - Debt of nonbank GREs, when the long-term rating on the GRE is the same as the long-term rating on the LRG, based on our opinion of an "almost certain" likelihood that the LRG will provide support for the GRE (generally excluding those GREs that are self-supporting) if needed, or when the GRE's debt is issued by the LRG's central treasury (as is the case in Australia); and
 - Debt of PPPs and securitizations, when the risk transfer to the private sector is not material enough to treat the public sector entity's financial commitment as a contingent liability.
177. In instances where we believe that a GRE is not self-supporting, we consolidate in the tax-supported debt ratio all the GRE's debt and own commercial revenues, regardless of the LRG's percentage of ownership of the GRE.
178. **Self-supporting entities.** A GRE that does not need financial support from its LRG and is unlikely to require support in the future is self-supporting debt. Financial support includes any direct or indirect contribution aiming at balancing operating accounts, financing investments, or repaying debt. When a GRE receives sizable revenues from its LRG for a service, we evaluate the exchange as if it were a remuneration at market rates for a service that could be provided in comparable terms by a private contractor. Self-supporting entities generally have investment-grade stand-alone credit profile (or estimated creditworthiness, if SACP is not formally established). For speculative-grade LRGs, GREs whose SACPs (or estimated creditworthiness) are at the same level or higher than that of the LRG's (hence unlikely to require government support) can also be classified as self-supporting.
179. **Projected benefit obligation.** An estimate of the present value of an employee's pension that assumes that the employee will continue to work and that his or her pension contributions would increase as their salary increases.
180. **Accumulated benefit obligation method.** A method that assumes that the employee ceases to work for the company at the time the actuarial estimate is made.

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BCM-MIPUG-9**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable, as to how borrowing costs of Manitoba Hydro and/or the Province of Manitoba will be affected in the event of further credit rating downgrades. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

Please see BCM/MIPUG-4(c).

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BCM-MIPUG-10**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with metrics, if possible, as to what effect would credit rating downgrades have on the requirement for subsequent Manitoba Hydro rate increase requests.

RESPONSE:

(a)

Please see BCM-MIPUG-4(c).

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BCM/MIPUG-11**

Section:		Page No.:	
Topic:			
Subtopic:	Self-Supporting Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of DBRS concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of DBRS concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

This response addresses all of the rating agencies discussed in the BCM questions.

Based on the information made available, including the content of Attachment C to Mr. Bowman's prefiled testimony, and the references contained in Mr. Bowman's section 4.1, evidence indicates the risks of a given credit ratings agency concluding Hydro's debt is not self-supporting relates primarily to two factors:

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- 1) Demonstration of regulatory stability, independence and insulation from political intervention. It would appear this risk would appropriately be viewed as low.
- 2) The potential that one of the ratings agencies changes their methodology in a manner that Hydro cannot possibly fulfill, as was the case with S&P. The risk of this is entirely unknowable and in no way within Hydro's or the PUB's control.

Looking specifically to S&P (the only detailed criteria on the record in this hearing), the response to MIPUG/MH-I-8a-k clarifies that on the primary financial assessments, Manitoba Hydro is already considered to be "highly leveraged" by a significant margin (FFO/Debt less than 9% leads to the "highly leveraged" rating – Manitoba Hydro's 3 year FFO/Debt is 2.2%). In short, neither 3.36% nor 7.9% rate increases will change the financial component of the assessment.

This means that the assessment of Hydro does not in fact focus on financial metrics, but on the business risk profile portion of the criteria. This is made up of "Country Risk" (which for Hydro is low), "Industry Risk" (Hydro is low), and "Competitive Position". In turn, competitive position considers some minor criteria such as "operating efficiency" and "scale, scope and diversity", and a major criteria which is the "regulatory advantage assessment". The criteria for regulatory advantage assessment are very informative, and go almost entirely to the credibility, consistency, stability, independence, and balancing of interests associated with the regulatory process.

Hydro provided clear testimony during the NFAT process that the ratings agencies were strongly behind Hydro's NFAT plans (Bowman Attachment C). During the NFAT process, Hydro set out a long-term plan that included the 20 year time period to recover its target equity level. Hydro's plan was largely supported by the regulator (other than the regulator noting Hydro should increase its equity more slowly than Hydro had proposed in order to moderate rate increase impacts). Today, the underlying facts (within the bounds of largely offsetting plusses and minuses) continue to unfold as planned by Hydro during the NFAT process, absent the large Conawapa project, and with major risks like interest costs and capital costs being increasingly locked in over time. Based on this evidence, it can be reasonably concluded that the potential risks should be viewed as low of Hydro now being found to be not self-supporting by any credit rating agency, outside of an unexpected method change by the credit rating agency.

(b)

Please see BCM/MIPUG-4(b). Also, in regard to response (a) above, the key measure of concern does not appear to be implementing rate increases per se, but rather (a) having a

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principled regulatory regime that demonstrates it will assess evidence and is prepared and able to implement rate increases in the event they become required, and (b) having a robust customer base who can pay the increases in the event they become required.

(c)

Please see BCM-MIPUG-4(c).

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-12**

Section:		Page No.:	
Topic:			
Subtopic:	Self-Supporting Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of Moody's concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of Moody's concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM/MIPUG-11.

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BCM-MIPUG-13**

Section:		Page No.:	
Topic:			
Subtopic:	Self-Supporting Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) To the extent that Manitoba Hydro's debt/equity ratio should be monitored, what would be an 'appropriate' debt/equity ratio target and should there be a time line in which Manitoba Hydro should reach such debt/equity ratio? Please provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

Please see response to BCM-MIPUG-29 and MH-MIPUG (Bowman)-10(c).

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BCM-MIPUG-14**

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion of the role debt plays in the structure and operations of Manitoba Hydro.

RESPONSE:

(a)

Please see response to BCM-MIPUG-30.

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BCM-MIPUG-15**

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Given the ever-changing risks faced by the utility, what financial indicators should be monitored and how should financial targets be determined?

RESPONSE:

(a)

Please see the response MH-MIPUG (Bowman)-10(c).

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-16**

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of P. Bowman and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable, as to how one determines the appropriate balance between paying down debt and increasing rates given that utilities are susceptible to unpredictable factors beyond their control.

RESPONSE:

(a)

Please see response to BCM-MIPUG-32.

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BCM-MIPUG-17**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by DBRS? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of Manitoba Hydro by DBRS as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-1.

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BCM-MIPUG-18**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by Moody's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
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RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-1.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
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Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade of Manitoba Hydro by Standard & Poor's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of Manitoba Hydro by Standard & Poor's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-1.

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BCM-MIPUG-20**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade for the Province of Manitoba by DBRS? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of the Province of Manitoba by DBRS as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-4.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-21**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of a credit downgrade for the Province of Manitoba by Moody's? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of a credit downgrade of the Province of Manitoba by Moody's as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-4.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-23**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable as to how Manitoba Hydro's credit rating and the Province of Manitoba's credit rating are analyzed by various credit rating agencies.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-7.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-24**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide discussion, with specific references to your submissions, or the submissions of others, where applicable, as to the significance and effect of Manitoba Hydro being regarded by the credit rating agencies as the Province of Manitoba's largest contingent risk. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

Please see BCM-MIPUG-8.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-25**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide discussion, with specific references to your submissions, or the submissions of others, where applicable, as to how borrowing costs of Manitoba Hydro and/or the Province of Manitoba will be affected in the event of further credit rating downgrades.

RESPONSE:

(a)

Please see BCM-MIPUG-4(c).

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-26**

Section:		Page No.:	
Topic:			
Subtopic:	Credit Rating Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide discussion, with metrics, if possible, as to what effect would credit rating downgrades have on the requirement for subsequent Manitoba Hydro rate increase requests.

RESPONSE:

(a)

Please see BCM-MIPUG-4(c).

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-27**

Section:		Page No.:	
Topic:			
Subtopic:	Self Supporting Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of DBRS concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of DBRS concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-11.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-28**

Section:		Page No.:	
Topic:			
Subtopic:	Self Supporting Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) What is the potential risk of Moody's concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes? Provide discussion with specific references to your submissions, or the submissions of others, where applicable.
- b) Is that risk increased or decreased if a rate increase of 7.9% is granted for 2017/2018 as opposed to a 3.36% increase? Provide reasons for your answer with specific reference to your submissions, or the submissions of others, where applicable.
- c) What are the consequences of Moody's concluding that Manitoba Hydro is no longer self-supporting and combining Manitoba Hydro's debt with the Province of Manitoba's debt for credit rating purposes as it relates to Manitoba Hydro's and the Province of Manitoba's borrowing costs and the provincial economy in general? Provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a), (b) and (c)

Please see BCM-MIPUG-11.

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-29**

Section:		Page No.:	
Topic:			
Subtopic:	Self Supporting Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) To the extent that Manitoba Hydro's debt/equity ratio should be monitored, what would be an 'appropriate' debt/equity ratio target and should there be a time line in which Manitoba Hydro should reach such debt/equity ratio? Please provide discussion with specific references to your submissions, or the submissions of others, where applicable. Please quantify and provide specific metrics wherever possible.

RESPONSE:

(a)

Please see response to PUB-MIPUG-14 for review of minimum retained earnings targets, minimum equity levels forecast under different rate scenarios, and considerations affecting assessing time periods for attainment of such targets.

As demonstrated with Hydro and the PUB in the 1980s and early 1990s, assessments of minimum retained earnings targets (versus 'appropriate' debt/equity ratio targets) were the key financial objective to monitor when Hydro had low equity levels (i.e., in the range of 5%). Overall, as reviewed in the response to PUB-MIPUG-14, Hydro today is able to meet an updated minimum retained earnings target (i.e., a target for retained earnings that remain materially greater than zero with a 5 or 7-year drought during the next decade) under a 3.95% rate regime. In the event that adverse conditions occur to affect existing forecasts, it is also recognized that rate adjustments can and should then be considered to ensure that retained earnings continue to be positive.

Beyond consideration of minimum retained earnings targets, discussion of an 'appropriate' debt/equity level relates to the assessment of reasonable upper "reserve" limits and/or transition targets on the way to reasonable upper "reserve" limits. For example, after

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-29**

establishing minimum retained earnings targets in the 1980s, Hydro introduced a debt/equity target of 85:15 that would increase retained earnings above the minimum target; a few years later, in the mid 1990s, the current debt/equity target of 75:25 was introduced, and the 85:15 level came to be viewed as a near-term transition target on the way to a higher level of retained earnings. To date, Hydro has been challenged to achieve the 75:25 debt/equity target on any sustained basis. Timing to achieve these debt/equity types of targets (and thus their relevance in practice to any specific rate review) has been adaptable to economic conditions, requirements for stable long-term rate changes that reflect the long life of Hydro's generation and transmission assets, and the objective to have rate changes that whenever possible do not exceed inflation.

The pre-filed evidence of Mr. Bowman (pg. 4-1 and 4-2) and the pre-filed evidence of Mr. Osler and Mr. Forrest (pg. 2-1 and 2-2) reviewed the PUB's NFAT report review of appropriate debt/equity ratio targets and timing for Hydro in the context of current capital expansion plans. The Panel supported a relaxation of Hydro's 75:25 debt/equity ratio to smooth out rate increases, noting its conclusion that Hydro would still be left with sufficient retained earnings if the equity level was reduced. The PUB recommendation was accepted by the Government of Manitoba.

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion of the role debt plays in the structure and operations of Manitoba Hydro.

RESPONSE:

(a)

Long-term debt has been relied upon to finance 75% to over 95% of Hydro asset costs since the early 1960s. During most of this historic period, long-term debt financed over 90% of Hydro's capital structure.

The dominant role of long-term debt in Hydro's structure and operations reflects the dominant role of long-life generation and transmission assets and Crown ownership of this utility.

Hydro's mandate as a provincially owned power utility (regulated monopoly) is to deliver power to domestic Manitoba customers "at cost", including (as provided for in the Manitoba Hydro Act, Section 40(1)) provision for reserves to help fund the operating expenses of the corporation, to protect against adverse events, and to help stabilize rates. "Equity" of Hydro therefore consists largely of retained earnings as provided by customers (rather than investment by the shareholder), which are considered as reserves. In this context, the dominance of long-term debt is re-enforced and equity levels at any one time fluctuate within limits consistent with Hydro's operation as a self-supporting entity focused on recovering costs from consumers over time.

For more detail on the above, please see the pre-filed evidence of Mr. Osler and Mr. Forrest (pgs. 4-1 and 4-2), and the pre-filed evidence of Mr. Bowman (Sections 3.5, 3.6, 4.3 and 5.2), as well as Supplementary Background Paper A to Mr. Bowman's pre-filed evidence.

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BCM-MIPUG-31**

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Given the ever-changing risks faced by the utility, what financial indicators should be monitored and how should financial targets be determined?

RESPONSE:

(a)

Please see the response MH-MIPUG (Bowman)-10(c).

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
BCM-MIPUG-32**

Section:		Page No.:	
Topic:			
Subtopic:	General Questions		
Issue:	Pre-filed Testimony of C.F Osler & G.D. Forrest and Supplementary Background Papers prepared by P. Bowman		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide a discussion, with specific references to your submissions, or the submissions of others, where applicable, as to how one determines the appropriate balance between paying down debt and increasing rates given that utilities are susceptible to unpredictable factors beyond their control.

RESPONSE:

(a)

Hydro has not in the past been challenged by determinations of the type raised in this question.

Debt reduction through rate increases, versus through normal debt management processes, has not been a focus of Hydro over the period since 1980. From March 21, 1980 to March 31, 2017, Hydro's long-term debt (LTD) declined in only 7 of 38 years; from 1992 to 1997, after Limestone construction, LTD declined in three of six years, but over that same period LTD grew from \$4.6 billion at March 31, 1991 to \$5.2 billion at March 31, 1997 (see response to MIPUG/MH 1-2(g)).

The concept of increasing rates in order to pay down Hydro's debt on a sustained basis has not been raised by Hydro prior to this GRA.

The above history reflects the fact that Hydro is a Crown power utility (regulated monopoly) serving Manitobans with long life capital intensive hydro generation and transmission facilities. As such, premature debt reduction for Hydro (i.e., well before the end of life for the relevant Hydro assets) has never in the past been a focus for Hydro, the PUB, or the Province – and, beyond drought and other specific risk factors addressed through retained earnings

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BCM-MIPUG-32**

reserves, these parties have also not typically been challenged in the case of this utility by other unpredictable factors beyond their control.