Undertaking #65 (Transcript pages 6459 - 6465)

MIPUG to provide a table similar to Board counsel book of documents Exhibit PUB-42-4, page 322, depicting one (1) to two (2) year water rentals paid for BC Hydro; as well as a table showing water rentals paid for Hydro Quebec, to include for the time period selected provincial payments as a percentage of gross revenue.

Response:

Government charges for crown-owned electric utilities compared to Manitoba Hydro (including Hydro Quebec, BC Hydro, Newfoundland Labrador Hydro, SaskPower and New Brunswick Power) are provided below in Table 1. Government charges as paid by these utilities are split by category including: water rentals, provincial guarantee fee, capital & other taxes and other government charges as applicable.

The information also separately shows dividend payments. The structure of dividend payments is in many cases (e.g., Hydro Quebec) not a typical "government charge" of the types noted above, but rather a payment to the government as investor tied to the risks and performance of the utility. Dividends can be specifically relevant in cases where (a) the government invested equity funds, (b) the government separately undertakes risks and rewards related to export sales, and/or (c) the government establishes rate directives whereby rates are established to fund returns on equity.

For comparison purposes gross electricity operations revenue and provincial payments as a percentage of gross revenue is provided, similar to the table in Exhibit PUB-42-4, page 322. For all but Hydro-Quebec the 2018/19 forecast year is provided[1]. Gross revenues provide one basis to compare these total government charge payments to government by different crown utilities; however, circumstances differ among these utilities. Charges on capital and debt are perhaps best compared based on debt or capital, rather than based only on revenues. Water rental overall charges reflect hydro generation levels, charge rates for use of water resources, and may also reflect the extent that utility hydro generation can earn attractive revenues in export markets. Overall, charge rates for water rentals, debt and capital may also vary depending on the whether assets are major new developments versus long-established facilities.

Attached to this response are relevant documents already on or previously on the record and therefore available to the Board on this topic, including:

[1] As Hydro-Quebec generation rates are not regulated, forecast government charges are not easily available. Therefore actual amounts from the most recent 2016 Annual Report are provided.

1. MH/MIPUG (Bowman) – 4 which includes background on utilities including BC Hydro, Newfoundland and Labrador Hydro and Hydro-Quebec regarding equity investment made by owner, dividend payments, debt guarantee fees, etc.
2. From Manitoba Hydro's Appendix 4.5, Updated Financial Target Review Report by KPMG, Section 5.2.2: Government Contributions from public-owned Power Utilities (pages 59-61), including Figure 5-5: Contributions Paid to Governments from Public-Owned Canadian Power Utilities
3. Exhibit MIPUG-26 in the NFAT Review (Response to Undertaking 144) with various examples of government support or intervention in projects to deal with rate pressures.

Table 1: Payments to Government ($ Millions)

($ Millions)	Manitoba Hydro (Forecast 2018/19)[i]	British Columbia Hydro (Forecast 2018/19) [ii]	Hydro-Quebec (2016 Actual, forecast not available)[iii]	Newfoundland Labrador Hydro (Forecast 2018/19)[iv]	SaskPower (Forecast 2018/19)[v]	New Brunswick Power (Forecast 2018/19)[vi]
Water Rentals	103	350.1	667	0	21	0
Debt Guarantee Fee	185	0	218	2.2	0	31.8
Capital & Other Taxes	145	238.7	284	0	50	45.1
Other	0	0	0	0	35	0
Payments to Gov't	**433**	**588.8**	**1,169**	**2.2**	**106**	**76.9**
Gross Operations Revenue	2,246	4,836.8	13,339	696.5	2,697.6	1,705.5
Payments to Gov't as Percentage of Gross Revenue	***19.3%***	***12.2%***	***8.8%***	***0.3%***	***3.9%***	***4.5%***
Dividends	0	70.8	2,146	0	21	0
Total Payments to Gov't (with dividend)	**433**	**659.6**	**3,315**	**127**	**76.9**	**76.9**
Total Payments to Gov't (with dividend) as Percentage of Gross Revenue	*19.3%*	*13.6%*	*24.9%*	*0.3%*	*4.7%*	*4.5%*

[i] PUB-MFR-44, Water rentals are $3.34/MW or 20.32/horse-power year, debt guarantee fee is 1% of outstanding debt (PUB-MFR-45 & PUB-MFR-46), Gross Operations Revenue updated per Appendix 3.8, MH16 Update with Interim

[ii] BC Hydro F2017 – F2019 Revenue Requirement Application, NOTE: prior to rate freeze for 2018/19 (i.e. reflects initial request for 3% rate increase for F2019). Water Rentals are $6.896/MW + capacity charges (per page 4-12 of application), dividend equal to 85% of net income,

subject to an 80:20 debt to equity cap, reduced for F2019 (Schedule 9.0), taxes per page 1-36, gross revenue per page 1-45. Available online: https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/revenue-requirements/f17-f19-rra-20160728.pdf

[iii] Guarantee fee approx. 0.5% on debt securities (page 6 of annual report). Dividend (76% of net income – no dividend if equity ratio less than 26%), provincial public utility tax all per page 25 and 26 of 2016 Annual Report. Available online: http://www.hydroquebec.com/publications/en/docs/annual-report/annual-report-2016.pdf

[iv] Newfoundland Labrador Hydro 2017 GRA, 0.5% debt guarantee on outstanding debt over 10 years, 0.25% debt guarantee on outstanding debt under 10 year term remaining, debt guarantee fee Schedule 4-II page 8 of 9 (note: only $2.157 million debt guarantee fee allowed in rates, additional $4.127 million debt guarantee fee for forecast 2019 not in rates, i.e. disallowed portion), Total revenue, Schedule 4-II, page 1 of 9, no dividend payable. Available online: http://www.pub.nl.ca/applications/NLH2017GRA/applications/NLH%202017%20General%20Rate%20Application%20-%20Volume%201%20-%20Revision%203%20-%202017-10-27.PDF

[v] Water rentals, corporate capital tax, coal royalties (included under 'Other') and dividend per SRRP Q5 from the recent 2018 Rate Application. No debt guarantee fee. Available online: http://www.saskratereview.ca/docs/saskpower2017/saskpower-2018-rate-application-srrp-round-1-irs-q1-to-q148-public.pdf Total revenue from 2018 Rate Application, page 27 for fiscal 2018/19. Available online: http://www.saskratereview.ca/docs/saskpower2017/saskpower-2018-rate-application.pdf

[vi] New Brunswick Power 2018/19 Rate Case Application, Debt guarantee fee equals 0.65% debt portfolio management fee to Government (on total long-term debt and short-term indebtedness net of sinking funds) – page 19 (taxes), 99 and 100 (portfolio mgmt. fee), 22 (revenue with requested rate increase) - available online: http://www.nbeub.ca/opt/M/get_document.php?doc=NBP1.03.pdf&no=20980

Section:	**Section 3**	**Page No.:**	**3-2**
Topic:			
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

Mr. Bowman cites the price charged for electricity by BC Hydro, Yukon, Northwest Territories, Newfoundland and Labrador and Nova Scotia as being regulated based on a cost of service approach and indicates that Manitoba Hydro also fits into this category. Manitoba Hydro would like to understand the comparability of the cited utilities.

QUESTION:

a) For each of the utilities cited in the above reference, and for Hydro Quebec, please indicate:
   i. Ownership type (e.g. Crown, privately held shareholder, municipal)
   ii. Are equity investments made by the owner?
   iii. Is a rate of return charged on equity?
   iv. Are dividend payments made?
   v. Is the utility's debt guaranteed by government? If so, what is the guarantee fee?

RESPONSE:

(a)

The citation in question is referring to the model of regulation used by a jurisdiction, not necessarily a given utility within the jurisdiction.

In respect of the electrical utilities in the jurisdictions noted (British Columbia, Yukon, Northwest Territories, Newfoundland and Labrador and Nova Scotia), as well as Quebec:

i. Ownership type:

a. British Columbia – mix of public, private and municipal.

b. Yukon – mix of public and private.

c. Northwest Territories – mix of public and private.

d. Newfoundland and Labrador – mix of public and private.

e. Nova Scotia – understood to be a mix of private and municipal.

f. Quebec – understood to be a mix of public, municipal and cooperative.

ii. Equity investment made by the owner: This question is not meaningful in respect of private utilities, and information on municipal and cooperative utilities are often unavailable (plus these utilities are typically small and sometimes numerous). Focusing only on the publicly owned utilities:

a. The only example Mr. Bowman is aware of recently where an equity investment was made to a Crown Corporation per se is Newfoundland and Labrador Hydro, where the government of the day contributed $100 million in equity[1] along with waiving annual debt guarantee fee charges for a period. This was part of implementing recapitalization based on making Newfoundland Hydro equivalent to the profit-earning private utility in the jurisdiction (Newfoundland Power). The effect of this measure was to impose upward rate pressures on customers to ensure the utility earned a larger return on equity than has been the case in earlier rate proceedings through the 1990s and 2000s.

b. In the case of BC Hydro, while not an equity investment per se, Mr. Bowman is aware that the utility has in the past been prescribed to earn a large return on equity (equal to the fair return that a private sector utility would earn, plus the taxes that a private sector utility would pay despite the fact that BC Hydro is non-taxable) and pay a significant portion of that return on equity to the government in the form of a dividend. (as reviewed at Manitoba Hydro hearings over the years, notwithstanding that BC Hydro pays this dividend, it has traditionally paid a much smaller share of rate revenue to government than Manitoba Hydro since BC Hydro pays much lower charges in other areas like debt guarantee fees). The BC Government has foregone this entitlement to a dividend as part of addressing the capitalization of BC Hydro and rate relief, including as part of current efforts to address cost pressures related to Site C (per OIC 095-2014, dividends are to be suspended until BC Hydro reaches a debt:equity level of 60:40; as such, the equity increases are being funded by government foregone dividends). Although this is not an equity investment per se, it serves to function as a government support to major capital projects.

[1] http://www.releases.gov.nl.ca/releases/2009/nr/0617n04.htm.

iii. **Return on Equity:** In all cases Mr. Bowman is aware of, private sector utilities earn a rate of return on equity. Typically municipal utilities and cooperatives are not set up to enshrine a formal return on equity measure. In the case of publicly owned utilities, each of BC Hydro, Yukon Energy, Northwest Territories Power, and Newfoundland Hydro earn a return on equity but in each case because the respective provincial government has explicitly included a provision for such return in legislation or government policy. Mr. Bowman is not versed in the setting of rate for Hydro Quebec in respect of a return on equity.

iv. **Dividend payments:** In respect of private utilities, it would be understood that dividend payments are the norm. For municipal or cooperative utilities, Mr. Bowman cannot generalize, though there are examples Mr. Bowman is aware of that do earn positive financial returns for municipal governments. In respect of publicly owned utilities:

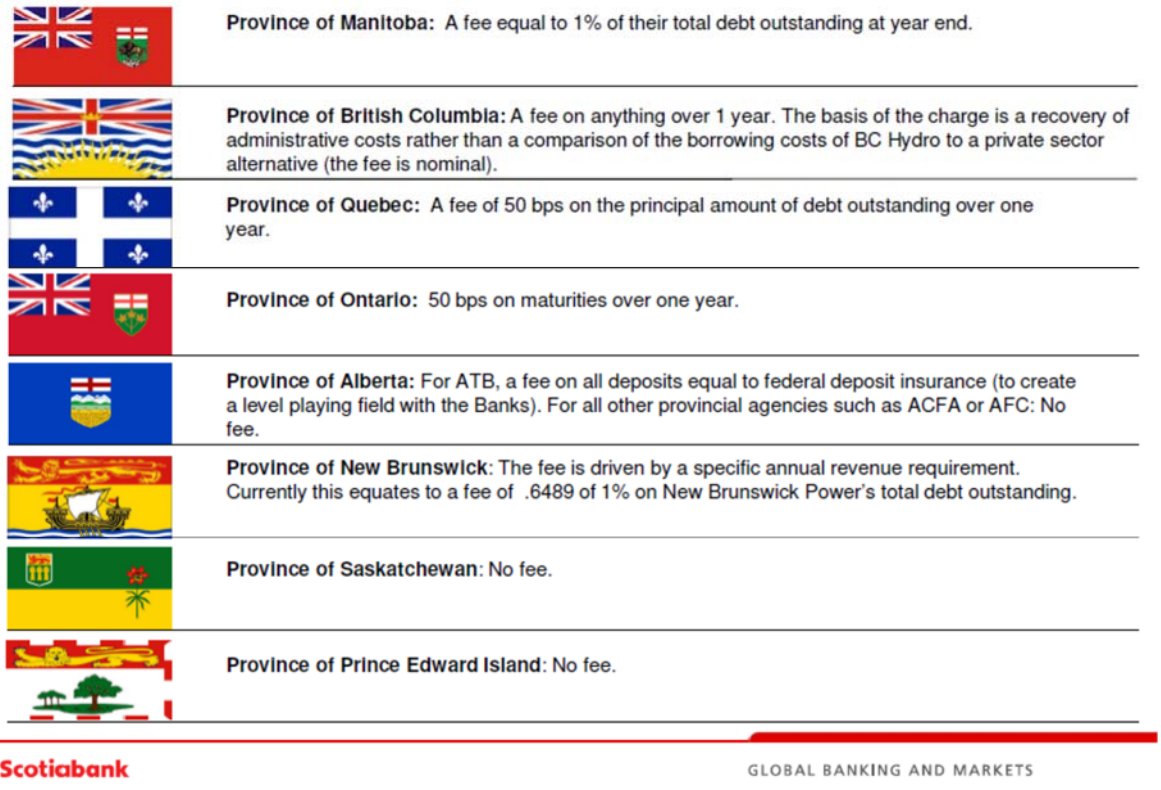
   a. the situation of BC Hydro is described above in item (ii).

   b. Hydro Quebec and Yukon Energy pay dividends to their respective shareholders. It is not known whether Hydro Quebec derives dividends from the regulated business or only from the non-regulated power generation functions.

   c. Northwest Territories Power and Newfoundland Hydro are not making dividend payments from the regulated businesses.

v. **Debt guaranteed by government and fee charged:** This question is assumed to only relate to publicly owned (provincial) utilities. The latest information available to Mr. Bowman on debt guarantees and guarantee fees is from a 2013 Newfoundland Hydro hearing,[2] summarizing the work of Scotiabank Government Finance as follows:

[2] http://www.pub.nf.ca/applications/NLH2013GRA/files/rfi/PUB-NLH-061.pdf.



Province of Manitoba: A fee equal to 1% of their total debt outstanding at year end.

Province of British Columbia: A fee on anything over 1 year. The basis of the charge is a recovery of administrative costs rather than a comparison of the borrowing costs of BC Hydro to a private sector alternative (the fee is nominal).

Province of Quebec: A fee of 50 bps on the principal amount of debt outstanding over one year.

Province of Ontario: 50 bps on maturities over one year.

Province of Alberta: For ATB, a fee on all deposits equal to federal deposit insurance (to create a level playing field with the Banks). For all other provincial agencies such as ACFA or AFC: No fee.

Province of New Brunswick: The fee is driven by a specific annual revenue requirement. Currently this equates to a fee of .6489 of 1% on New Brunswick Power's total debt outstanding.

Province of Saskatchewan: No fee.

Province of Prince Edward Island: No fee.

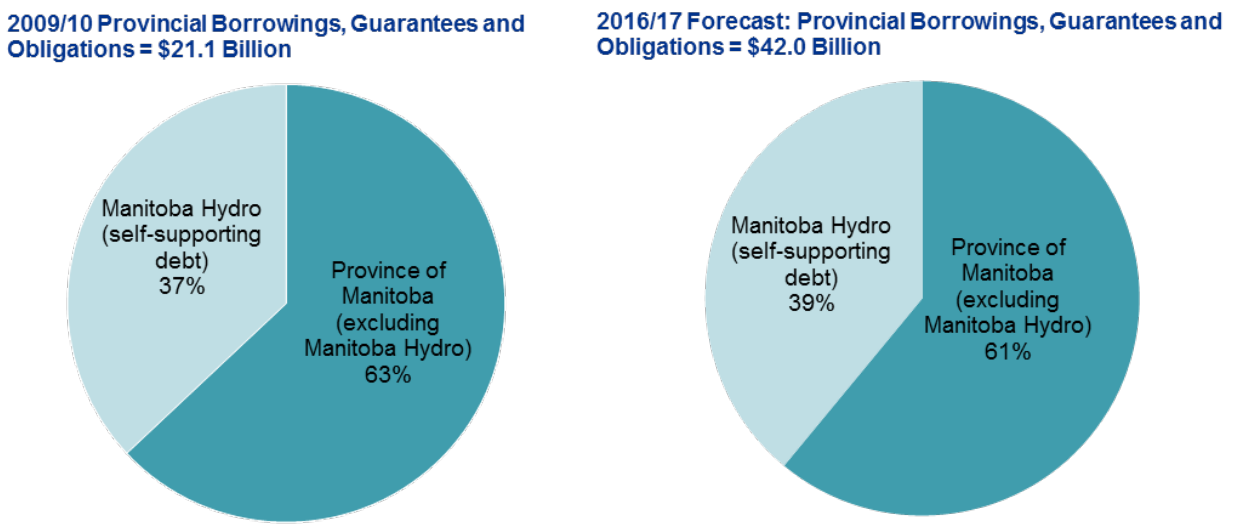
Scotiabank GLOBAL BANKING AND MARKETS

In respect of total amounts paid, Mr. Bowman's most current evidence is from the submission of KPMG in Appendix 4.4 (KPMG's Figure 5.5). This figure highlights the scope of payments made by each of the utilities, including as a percentage of the revenues charged and on a per capita basis.

Figure 5-5: Contributions Paid to Governments from Public-Owned Canadian Power Utilities (FY2016 or FY2016/17 in annual $ millions)

	Manitoba Hydro	BC Hydro	Hydro-Quebec	NB Power	Nalcor
Dividend (1)	n/a	$259	$2,146	n/a	n/a
Debt guarantee fee	$136		$218	$32	$4.5
Water rental charges	$131	$349	$673		$4.9
Property, capital & other taxes	$135	$234	$372	$43	not available
Total	$402	$842	$3,409	$75	$9.4
Total % revenues	17%	14%	26%	4%	1%
Per Capita (rounded dollars)	*$305*	*$177*	*$409*	*$99*	*$18*

Figure 5-4: Province of Manitoba Borrowings, Guarantees and Obligations, 2009/10 and 2016/17 Forecast



Source: 2009/10 from Province of Manitoba 2014 Budget Summary Financial Statistics. 2016/17 forecast from Province of Manitoba 2017 Budget Summary Financial Statistics. (Provincial borrowings, guarantees and obligations are net of sinking funds.)

5.2.2 Government contributions from public-owned power utilities in Canada

Figure 5-5 provides a breakdown of contributions paid to governments from Manitoba Hydro and four other government-owned power utilities in the peer group. Of these five government-owned power utilities, only BC Hydro and Hydro-Quebec currently pay a direct annual dividend to their provincial owner. In both cases, dividends are based on a formula and are capped to ensure that a minimum equity ratio is maintained.

Most government-owned utilities pay a debt guarantee fee based on a percentage of outstanding debt to their respective provincial owner.

- Manitoba Hydro pays a 1.0% fee on outstanding applicable debt, which is the highest percentage fee in the group. The Province of Manitoba's debt guarantee fee was increased from 0.5% to 0.65% effective April 1, 2000 and to 0.95% effective April 1, 2001. [37] The fee was subsequently increased to 1.0% during fiscal 2006/07.
- NB Power pays a 0.65% fee on outstanding debt.
- Hydro-Quebec pays guarantee fees to the Quebec government related to debt securities. In 2014, these fees were $205 million in 2014 which represents slightly under 0.5% on outstanding debt. [38]
- In 2008, the Government of Newfoundland and Labrador temporarily waived the guarantee fee paid by Nalcor until 2011. Upon reinstatement in 2011, the fee was reduced from 1.0% of outstanding debt to a fee of 0.5% on outstanding debt with a remaining term of over 10 years and 0.25% on outstanding debt with a remaining term of under 10 years. The new fee rates were designed to better reflect the value of the debt guarantee, and are based on a comparison of yields on bonds issued by the Province to bonds with similar maturities issued by a group of investment-grade

[37] PUB Board Order 7/03, p. 26.

[38] Hydro-Quebec 2014 Annual Report. Financial statements Note 6.

utilities comparable to Hydro.[39] NLH's recent rate application notes the cumulative impact of these fee initiatives to 2015 is $62.3 million.[40]

In fiscal 2016/17, Manitoba Hydro paid $136 million in debt guarantee fees to the Province of Manitoba, an amount that is expected to increase significantly over the next five years as borrowings ramp up to complete major generation and transmission projects.

Manitoba Hydro, BC Hydro and Hydro-Quebec pay annual water rental charges to their respective provinces. Manitoba Hydro's water rental charge is $3.34 per MW, which is a similar rate to Hydro-Quebec, and significantly lower than BC Hydro, which pays $6.896 per MW plus capacity charges. Under the *Water Power Act*, the Province of Manitoba approximately doubled water rental rates to its current level of $3.34 per MW effective April 1, 2001. Manitoba Hydro paid $131 million to the Province of Manitoba in water rental charges in 2016/17.

All utilities pay local property and related taxes in their respective jurisdictions. In addition to these taxes, Manitoba Hydro pays capital taxes to the Province of Manitoba ($84 million in 2016/17), and Hydro-Quebec pays a Provincial Public Utility Tax to the Government of Quebec.

Figure 5-5: Contributions Paid to Governments from Public-Owned Canadian Power Utilities (FY2016 or FY2016/17 in annual $ millions)

	Manitoba Hydro	BC Hydro	Hydro-Quebec	NB Power	Nalcor
Dividend (1)	n/a	$259	$2,146	n/a	n/a
Debt guarantee fee	$136		$218	$32	$4.5
Water rental charges	$131	$349	$673		$4.9
Property, capital & other taxes	$135	$234	$372	$43	not available
Total	$402	$842	$3,409	$75	$9.4
Total % revenues	17%	14%	26%	4%	1%
Per Capita (rounded dollars)	*$305*	*$177*	*$409*	*$99*	*$18*

Note: derived from annual reports and financial statements, for the year-ending March 31, 2017 for Manitoba Hydro, BC Hydro and NB Power and for the year-ending December 31, 2016 for Hydro-Quebec and Nalcor.

(1) No dividends are paid by Manitoba Hydro, NB Power and Nalcor. For Hydro-Quebec, dividend paid the Quebec government is 75% of net income; no dividend if it effectively reduced the cap rate/equity ratio to less than 25%. For BC Hydro, dividend is 85% of net income, subject to an 80:20 debt to equity cap. Dividend for the year ending March 31, 2016 and for the year ending March 31, 2017 is less than 85% due to the cap. Special Directives from the Province of BC define a minimum annual payment which was $259 million for the 2016/17 fiscal year. Note that BC Hydro's dividend payments to the Province of BC have been higher in previous years.

[39] Newfoundland and Labrador Hydro – 2013 General Rate Application, p. 3.31.

[40] Newfoundland and Labrador Hydro – 2013 General Rate Application, p. 3.32.

Based on information disclosed in annual financial statements, as noted in Figure 5-5, Manitoba Hydro's payments to government represent approximately 17% of total revenues. This is a similar share to BC Hydro (although BC Hydro's dividend payments to the Province of B.C. have been lower in recent years), a much higher proportion than government-owned utilities in Atlantic Canada, but significantly lower than Hydro-Quebec. Hydro-Quebec contributes approximately 26% of its total revenues to government, with nearly two-thirds of its government contributions in the form of dividends to its owner.

5.3 Summary Observations

Key conclusions from the analysis in this chapter are the following:

- Since the May 2015 Report, two credit rating agencies have issued a total of three credit downgrades for the Province of Manitoba. One credit rating agency no longer views Manitoba Hydro debt as self-supporting due to high and rising leverage. Two other credit rating agencies continue to view Manitoba Hydro as self-supporting.
- The combined debt of the Province of Manitoba and Manitoba Hydro has significantly increased in the past two fiscal years, and Manitoba Hydro's share of Provincial borrowings, guarantees and obligations now exceeds 40%.

REFERENCE: Undertaking #144, Transcript page 10,242

QUESTION:

a) MIPUG panel to provide brief summary of various examples of government support or intervention in projects to deal with rate pressures; also to look into examples of relief to ratepayers and, if available publicly, relief between government and other stakeholders, including First Nation government.

ANSWER:

(a)

As requested, Mr. Bowman has appended the information available to him at this time in regard to government support for energy developments, to address either (a) government protection for identified risks, (b) government support for projects that would otherwise have early-years upward pressure on rates, and (c) in some cases outright government subsidies of projects. Please note that Mr. Bowman did not identify any readily summarized examples (i.e., public information) for federal/provincial/territorial government relief for First Nation government investors in energy projects. The information is separated below by province.

Additional examples of government support on projects has been provided on the record in response to MH/MIPUG I-3.

PRINCE EDWARD ISLAND

PEI-New Brunswick Cable Interconnection

In the absence of indigenous resources for hydroelectric development, PEI connected to New Brunswick's electricity system through an underwater cable. The underwater cable was to be owned by the Province of Prince Edward Island and leased to the investor owned utility, Maritime Electric (ME). In 1977, the province took advantage of federal funding that was not available to ME in order to build the cable. The cost was approximately $36 million of which the federal government contributed $18 million and financed another $9 million at Crown corporation rates. The province financed the

remaining $9 million. The debt was set up to be repaid in thirty equal annual instalments of principal and interest.

Maritime Electric built the cable under the Interconnection Lease Agreement whereby ME made annual payments to the provincial government equivalent to the financing charges. It was intended that once the debt was retired, ME will continue to lease the cable for $1 per year. The lease also provided that either ME or the province could propose any additions or alterations to the interconnection and the province had the option of financing these additions or let ME do so.

NEW BRUNSWICK

Point Lepreau Nuclear Station

The Government of Canada established a policy of co-financing any first application of Canada Deuterium Uranium (CANDU) nuclear technology in a Canadian province. In the case of the Point Lepreau, the initial agreement provided for federal loans at Crown corporation rates to cover 50 per cent of the capital costs of the plant. However, final costs exceeded the initial estimates by multiples and consequently the ceilings on federal loans were raised above the initially planned levels. The loans represented approximately 25 per cent of the final $1.4 billion total cost. In addition to the commercial aspects of this loan, the Government of Canada forgave interest payments on its loan for the first three years of operation up to a maximum of $102 million. The loans were repayable in equal annual instalments of principal and interest over 25 years. On April 1, 1993, New Brunswick Power repaid the full amount of the loans to Atomic Energy Canada Limited[1].

A more unique feature of the Point Lepreau arrangement was that Canada agreed to make performance loans to New Brunswick Power if the generating station operated below 75 per cent of capacity. This loan commitment is to a maximum of $49 million in any one year up to $130 million overall. These loans were to be repaid when the facility was operating at above 75 per cent capacity.

[1] NB Power 1993/1994 Annual Report.

HVDC Interconnection with Quebec

Through its agent Northern Canada Power Commission (NCPC), a federal Crown corporation, the federal government lent money to New Brunswick Power, at federal Crown corporation rates, to construct the HVDC transmission line from Quebec. The line was constructed in the early 1970s in conjunction with the world's largest converter station on the Eel River (bordering between New Brunswick and Quebec). The converter was designed to allow the Hydro-Quebec Power Commission and the New Brunswick Power Commission to exchange large amounts of power. The loans from the federal government were at rates varying from 4.5% to 8.5% and were to be repaid in equal principal and interest instalments to the year 2011.

NEWFOUNDLAND

Bay d'Espoir

The first major hydro development on the Island, Bay d'Espoir, was constructed in the mid-1960s. This project was funded $20 million (out of an estimated $90 million cost) by the federal government through the Atlantic Development Board.

Roddickton[2]

In 1981, the Roddickton small-scale hydroelectric generating plant (425 kW) was officially opened at White Bay, Newfoundland. The $1.2 million plant was largely funded by the federal government to show the potential of using indigenous energy sources to displace oil.

MANITOBA

Hydro development on the Nelson River – Initial Investigations

The Federal Government entered into a series of agreements to share equally with both the government of Manitoba and Manitoba Hydro the cost of investigating the hydroelectric potential along the Nelson River. Under this arrangement, the Nelson River Programming Board would be responsible for pre-feasibility support to assess the merits

[2] Natural Resources Canada: Canadian Energy Chronology: http://www2.nrcan.gc.ca/es/es/EnergyChronology/index_e.cfm, Viewed on May 8, 2007.

of and prepare a plan for developing hydro power on the Nelson. The initial study, conducted between 1963 and 1964 resulted in an in depth feasibility study, completed in 1968. The initial study under the cost-sharing agreement was $1.3 million, and the subsequent cost for further feasibility studies was an estimated $3 million[34].

Nelson River Transmission

In 1966, Manitoba and Canada signed an agreement (Canada-Manitoba Nelson Transmission Line Agreement) that enabled the development of Manitoba's hydro potential on the Nelson River. Canada, through its agent Atomic Energy of Canada, agreed to build an HVDC transmission line between Nelson River and Winnipeg as well as the converter stations and the related microwave communication system. Without this agreement Manitoba Hydro's next best alternative would have favoured thermal generation in southern Manitoba.

Atomic Energy of Canada owned the transmission line, and under the agreement it leased the line to Manitoba Hydro. From 1971, payments to Canada were based on a share of the revenue from sales of electricity over the line; however, the payments fell far short of the annual interest payments (interest rate of 5.625 per cent). In 1977 a repayment schedule was worked out that gradually increased from $2.5 million in 1977/78 to $22.5 million in 1988/89. Any balance remaining at that time was to be amortized over the next thirty years (to 2018/2019) at the original 5.625 per cent interest rate. Unpaid interest accrued to capital which increased from an initial sum of approximately $227 million to approximately $370 million as at 1987. This lease back arrangement enabled Manitoba Hydro to develop the Kettle Rapids hydroelectric generating station, which would not have been viable had the HVDC line been capitalized with the project.

Lease payments for the transmission line were structured to provide economic relief to ratepayers in the early years of development, with anticipated higher rates during the later years.

[3] Natural Resources Canada: Canadian Energy Chronology: http://www2.nrcan.gc.ca/es/es/EnergyChronology/index_e.cfm, Viewed on May 8, 2007.
[4] Manitoba Hydro: A History of Power in Manitoba: 1963. http://www.hydro.mb.ca/corporate/history/history_master.html Viewed on June 12, 2007.

In 1991-1992, Manitoba Hydro bought-out the lease agreement for $198.1 million, resulting in lower charges to operations in the future than had they continued with the arrangement[5].

Nelson River Environmental Investigations

Finally, to ensure that social, economic and environmental interests were fully explored during the development of the Nelson River projects, the federal and Manitoba governments initiated a $2 million study of the Lake Winnipeg Regulation, Churchill River Diversion that ultimately led to the Northern Flood Agreement with the affected northern Manitoba First Nations, and agreements with the cities of Thompson and Churchill[6].

Development of Related Infrastructure

Provincial Highway 280 (from Thompson to Gillam) was built by the Government of Manitoba to facilitate hydro development on the Nelson River system, as well as provide year-round road access to the community of Split Lake.

YUKON

Canada Flexible Term Note – Whitehorse Hydro Facility Fourth Wheel

In 1987, ownership of the Northern Canada Power Corporation (NCPC) was transferred from the Federal Government to the Yukon Energy Corporation (YEC), a wholly owned subsidiary of the Yukon Development Corporation (YDC).

At the time, one of the utility's major customers was a lead/zinc mine located at Faro. This mining operation was recognized as a major risk to the utility operations as the mine had recently been shut down (1982) due to metal market conditions.

In the mid-1980s, NCPC had developed a fourth turbine at the Whitehorse Hydro facility (called Whitehorse #4) to increase the installed capacity of the facility from 20 MW to 40 MW. The unit was added to displace diesel generation costs associated with the Faro

[5] Manitoba Hydro-Electric Board (1992) 41st Annual Review.
[6] Manitoba Hydro (1996) History and First Order Effects: Split Lake Cree Post Project Environmental Review, Vol 2.

Mine; however, the unit was of no value when the Faro mine was closed as the system had substantial surplus hydro and no export connections to sell the power.

Although the Faro Mine reopened during the period of the negotiations between Canada and Yukon to buy the NCPC Yukon-based assets, Yukon was reluctant to assume the full risks associated with Whitehorse #4 given that the mine could close again. The parties resolved a mechanism for a "Flexible Term Loan" from Canada to Yukon for $40 million. This loan provided that Canada would receive annual principal payments of $1 million and interest of 7% when the unit was fully required (the annual system sales were above 310 GW.h), and all interest was forgiven and principal deferred when the unit was not required (system sales below 200 GW.h). In the range of 200 and 310 GW.h, the interest and principal payments were adjusted on a linear sliding scale. All principal not paid would be deferred and all interest not paid in any year would be forgiven. As such, Canada retained all load-related risks associated with the unit.

Mayo-Dawson Transmission Project – Yukon Development Corporation Financing

Yukon Energy developed the Mayo-Dawson transmission line in 2001-2003 to allow otherwise surplus hydro at Mayo to be used to displace diesel generation at Dawson. The project received support from the Yukon Development Corporation (a Yukon Crown Corporation, and the sole shareholder of Yukon Energy) in two ways:

One-time contribution: Yukon Development Corporation (YDC) has provided $5.75 million in non-repayable contributions to Yukon Energy to offset project costs including $4 million for overall project costs, and $1.75 million for targeted items that could not otherwise be justified within the scope of the Mayo-Dawson project. YDC has also provided $50,000 for acquisition of additional land at the Calliston site that is not now repayable but will become repayable (without interest) should Yukon Energy decide to relocate the Dawson diesel plant to this location in the future.

Flexible financing: YDC provided $18 million in debt under a new "flexible financing" plan. Yukon Development receives principal repayments of $450,000 a year (1/40 of the principal). In addition, Yukon Development receives interest payments that are the lesser of 6.55% or the maximum Yukon Energy can afford to pay from the diesel savings – with the net result that the total cost to Yukon Energy for the project will in no year be above what it would have cost to serve Dawson using diesel generation power.