MANITOBA HYDRO 2017/18 & 2018/19 GENERAL RATE APPLICATION
MANITOBA HYDRO
INTERVENER EVIDENCE INFORMATION REQUESTS
COALITION (HARPER)
NOVEMBER 15, 2017

MH/COALITION (HARPER) - 1

Reference:

Section 2, page 3

Appendix A – Statement of Qualifications and Duties – Mr. William Harper

Preamble:

Mr. Harper states at page 3: “The CONSUMERS COALITION, as a registered participant in the proceeding, retained Econalysis Consulting Services (ECS) to assist and advise the Group with their participation in the proceeding. As part of its engagement, ECS was requested to prepare evidence that would assist both PUB and them in understanding specific aspects of the Application.”

Question:

a) Please provide a copy of your retainer letter. Please also provide any instructions you received with respect to your retainer.

b) Please advise whether issues regarding your evidence were identified by yourself and/or Consumers Coalition.

Response:

a) Please find attached a copy of the ECS retainer letter as Attachment A. The only specific instruction Mr. Harper received with respect to the retainer letter was to emphasize the “Duty to the Public Utilities Board” requirement regarding any evidence provided.

The Consumers Coalition adds: We have provided the letter but deleted the financial terms which are not relevant to the question or to the Board's deliberations. The Coalition also adds that an earlier version of the retainer letter was sent to Mr. Harper but not signed due an administrative oversight.

b) The determination of the issues addressed in the ECS evidence started with the Consumers Coalition asking Mr. Harper to suggest what areas he thought it would be useful for him to provide evidence. At the same time, discussions were held between the Consumers Coalition and other participating intervenors as to what issues related to the Application they were interested in/providing evidence on. After reviewing Manitoba Hydro's Application, considering the areas other experts retained by the Consumers Coalition would be focusing on and the interests/plans of other intervenors Mr. Harper made a number of suggestions as to areas where he felt expert evidence from him would be useful. The Consumers Coalition concurred and the evidence reflects the areas suggested by Mr. Harper.

MH/COALITION (HARPER) - 2

Reference:

Section 3, page 5

Preamble:

At page 5, Mr. Harper states that "The purpose of this metric is simply is to provide a basis by which to compare the various IFFs from a capital coverage perspective."

It is stated "Also, as noted above, it includes an alternative measure of capital coverage that compares Cash Available from Operations to Total Investment in Plant, Property and Equipment (Overall Capital Coverage)".

Question:

a) Please confirm if, in the above statement, Mr. Harper is referring to the CFO to Cap/Ex ratio. If the answer is no, please explain which metric is being referred to.

b) If the answer to part a) is yes, please provide the evidence Mr. Harper is relying on to conclude that the purpose of Manitoba Hydro's CFO to Cap/Ex ratio is to provide a basis for comparison among IFFs.

c) Please describe your calculation of Overall Capital Coverage, compared to your understanding of Manitoba Hydro's CFO to Cap/Ex ratio.

Response:

a) As the ECS evidence states at page 5: "there are a wide range of financial metrics related to capital coverage that have been developed for and are used for different purposes." Mr. Harper assumes that, in the above question, Manitoba Hydro is referring to the Cash Flow Deficiency calculation as set out in Tab 2, page 12, Schedule 2.16 of its Application. Based on this understanding the answer is no.

The “this metric” being referred to in the referenced statement is a metric the ECS evidence refers to as “Overall Capital Coverage” and is calculated as the difference between: i) Cash From Operating Activities and ii) Property, Plant and Equipment (net of capital contributions) Investing Activities – as reported on the Projected Cash Flow Statements provided as part of each IFF.

As noted in the evidence (page 5):

“The purpose of this metric is simply is to provide a basis by which to compare the various IFFs from a capital coverage perspective. It is not meant to be a replacement or addition to any of Manitoba Hydro’s formal financial measures. It was chosen because it does offer one of many perspectives on the adequacy of capital coverage and it can be calculated using data that is readily available from all IFFs.”

b) Not Applicable

c) See part (a) for an explanation of the calculation of the Overall Capital Coverage metric used in the ECS Evidence. As an illustration, copied below is a partial snapshot of the Cash Flow Statement from the initial IFF16 @ MH 15 Rates as provided in Appendix 3.4 of the Application. The Overall Capital Coverage metric for 2017/18 is calculated as the difference between Total Cash from Operating Activities ($645 M) less Property, Plant and Equipment (net of capital contributions) Investing Activities ($3,553 M) with a resulting value of -$2,908 M.

ELECTRIC OPERATIONS (MH16 20 Year Outlook at MH15 Projected Rate Increases)
PROJECTED CASH FLOW STATEMENT
(In Millions of Dollars)

For the year ended March 31	2017	2018	2019	2020	2021	2022	2023	2024	2025
OPERATING ACTIVITIES									
Cash Receipts from Customers	2,007	2,087	2,138	2,219	2,410	2,600	2,783	2,895	3,015
Cash Paid to Suppliers and Employees	(876)	(917)	(881)	(880)	(903)	(908)	(923)	(937)	(954)
Interest Paid	(569)	(529)	(633)	(701)	(753)	(826)	(1,067)	(1,112)	(1,120)
Interest Received	7	5	12	21	17	15	7	5	10
	569	645	635	658	771	881	800	850	952
FINANCING ACTIVITIES									
Proceeds from Long-Term Debt	2,743	3,570	3,590	2,170	1,990	1,190	760	190	390
Sinking Fund Withdrawals	146	0	0	182	303	767	173	60	344
Retirement of Long-Term Debt	(1,030)	(330)	(1,002)	(336)	(1,278)	(1,020)	(449)	(290)	(412)
Other	10	(10)	(10)	(11)	(11)	(11)	11	(5)	(5)
	1,868	3,229	2,578	2,005	1,004	925	495	(45)	318
INVESTING ACTIVITIES									
Property, Plant and Equipment, net of contributions	(2,609)	(3,553)	(3,015)	(2,351)	(1,742)	(1,352)	(880)	(700)	(704)
Sinking Fund Payment	(146)	(246)	(210)	(244)	(282)	(334)	(245)	(255)	(263)
Other	(68)	(51)	(55)	(44)	(128)	(91)	(84)	(83)	(83)
	(2,822)	(3,850)	(3,280)	(2,639)	(2,152)	(1,777)	(1,209)	(1,039)	(1,051)
Net Increase (Decrease) in Cash	(384)	25	(67)	24	(378)	30	86	(233)	218
Cash at Beginning of Year	944	559	584	517	541	163	193	279	46
Cash at End of Year	559	584	517	541	163	193	279	46	264

Based on Mr. Harper’s understanding of the calculation as set out Figure 2.16 of the Application, the key difference between Manitoba Hydro’s CFO to Cap/Ex ratio and the Overall Capital Coverage metric used in the ECS evidence is that the latter includes all capitalized interest and all capital expenditures whereas the Manitoba Hydro ratio excludes the capital expenditures on certain projects (i.e., Keeyask, BP III, MMTP & GNTL) and excludes the capitalized interest associated with certain projects (i.e., Keeyask, MMTP & GNTL).

MH/COALITION (HARPER) - 3

Reference:

Section 3, Schedule 2

Section 3, page 8

Manitoba Hydro’s July 19, 2017 Interim Rates Reply Submission presentation, slide 27.

MH16 Update with Interim

Preamble:

At page 8, Mr. Harper states “Overall, the actual results, in terms of retained earnings and debt ratio, capital coverage and interest coverage (i.e., EBITDA) all generally fall within the range of (or out-perform) the two forecasts. Based on the actual results to-date there is no reason to conclude that there’s been a material change from Manitoba Hydro’s previous financial outlooks.”

Question:

a) Please confirm that Manitoba Hydro’s evidence indicates that net income, and therefore retained earnings, for 2015-2017 included revenue attributable to above average water conditions of $149 million. Please also confirm that net income and retained earnings also include $20 million from a non-recurring gain on a land sale.

b) Please confirm that the exclusion of the above would result in a contribution of only $16 million to retained earnings over the three-year period.

Response:

a) It is confirmed that Manitoba Hydro evidence (PUB Exhibit MH-15-July 19, 2017 Interim Rates Reply Submission) attributes $149 M in net income for 2015/16-2016/17 to above average water flows.

It is confirmed that Manitoba Hydro's reported financial results for 2016/17 (per Appendix 3.8) include $20 M from a non-recurring gain.

It should be noted that the values presented in PUB Exhibit MH-15 for 2016/17 are forecast (as opposed to actual) values. For example, the 2016/17 Manitoba Hydro (electric operations) net income is shown as $34 M, whereas the actual Manitoba Hydro (electric operations) net income was $53 M.

b) Confirmed, assuming the net income contribution for 2014/15 is based on CGAAP which includes the negative net income attributable to Non-controlling interests (-$11 M) – see Appendix 6.6.

If the IFRS-based financial results for 2014/15 are included in the determination of the Manitoba Hydro's electric operations contribution to retained earnings for the referenced period, the three-year total net income is $201 M, leaving $32 M after deducting the referenced amounts (per Appendix 6.6).

MH/COALITION (HARPER) - 4

Reference:

Section 3, page 14

Question:

a) Please reproduce Schedule 6 with an additional column providing comparative results based on MH16 Update with Interim in PUB/MH I-34 (Attachment 2).

Response:

a) The 2018-2019 results based on MH16 Update with Interim in PUB/MH I-34 (Attachment 2) are provided in Schedule 14 of the ECS Evidence. The following schedule combines these results with those in Schedule 6 into one single schedule.

Schedule 6 - per MH/COALITION (HARPER) - 4

Cumulative Comparative Results - $M (2018-19)

	IFF14	IFF15	IFF16 @3.95%	IFF16 U/I @3.95%
Revenues				
Domestic Revenues	3406	3421	3299	3,296
BP III Reserve	-47	-90	-105	- 148
Exports	936	923	886	983
Other Revenue	29	57	61	61
Total	4323	4311	4141	4,192
Expenses				
O&A	1128	1128	1019	1,019
Finance	1333	1295	1202	1,226
Depreciation	966	870	867	867
Water Rentals	224	226	236	250
Fuel & PP	409	362	301	264
Taxes	277	281	277	277
Corp Allocation	16	16	16	16
Other	4	202	224	225
Total	4361	4380	4143	4,145
Net Movement	-	83	174	186
Non Control Interest	12	7	10	9
MH Net Income	-26	22	182	241
Capital Spending	5203	4932	5800	5,801
In-Service Asset (2018/19)	17687	17248	17505	17,332
Total Fixed Assets (2018/19)	23727	23475	24101	24,077
Regulated Assets (2018/19)	396	787	633	647
Retained Earnings (2018/19)	2812	2663	2912	2,990
Debt Ratio (2018/19)	0.86	0.87	0.86	0.85
Base Capital Coverage Ratio (Avg)	1.13	1.23	1.23	1.38
Overall Captial Coverage $M (Avg)	-2208.5	-2029	-2644	- 2,613
EBITDA (Avg)	1.44	1.49	1.58	1.59

Notes: 1) IFF14 presentation was not prepared per IFRS (i.e., excluded "Net Movement")
2) Total Fixed Assets Includes Assets In Service (NBV) and Under Construction
3) Overall Capital Coverage is based on Cash from Operations less PP&E Investments

Sources: 1) IFF14 - 2015/16&16/17 GRA, Appendix 3.4 & 11.13

MH/COALITION (HARPER) I - 5

Reference:

Section 3, pages 19 and 24

Question:

a) Please reproduce Schedules 10 and 14 with an additional column providing the cumulative comparative results based on MH16 Update with Interim in PUB/MH I-34 (Attachment 2).

b) Please confirm that between IFF15 and IFF16, there are $500 million in Finance Expense savings as result of the reduction in the weighted average term to maturity.

c) Please confirm that IFF15 assumes a Keeyask in-service date of November 2019, whereas IFF16 assumes an August 2021 in-service date.

Response:

a) The 2018-2027 and 2018/2034 results based on MH16 Update with Interim in PUB/MH I-34 (Attachment 2) are provided in Schedule 14 of the ECS Evidence. The following schedules combine these results with those in Schedules 10 and 14 respectively.

b) Mr. Harper can confirm that Manitoba Hydro (see Tab 3, pages 9-10) attributes $500 M in reduced debt servicing costs to the reduction in the weighted average term to maturity.

c) Confirmed.

Schedule 10 - per MH/COALITION (HARPER) - 5

Cumulative Comparative Results - $M (2018-2027)

	IFF14	IFF15	IFF16 - 3.95%	IFF16 U/I @3.95%
Revenues				
Domestic Revenues	20,567	20,545	19,499	19,251
BP III Reserve	- 47	- 90	198	194
Exports	8,024	7,997	6,493	6,373
Other Revenue	156	576	332	332
Total	28,702	29,028	26,489	26,150
Expenses				
O&A	6,141	6,141	5,364	5,364
Finance	11,458	10,248	9,078	9,496
Depreciation	6,596	6,208	6,151	6,154
Water Rentals	1,251	1,253	1,228	1,238
Fuel & PP	2,471	2,141	1,434	1,412
Taxes	1,517	1,551	1,625	1,630
Corp Allocation	80	80	80	80
Other	26	877	1,240	1,241
Total	29,544	28,500	26,199	26,620
Net Movement	-	57	615	636
Non Control Interest	12	- 6	- 33	- 35
MH Net Income	- 830	578	903	130
Capital Spending (incl DSM)	11,944	11,918	14,435	14,436
In-Service Asset (2026/27)	24,878	24,942	26,902	26,732
Total Fixed Assets (2026/27)	25,103	25,114	27,171	27,143
Regulated Assets (2026/27)	333	761	1,074	1,098
Retained Earnings (2026/27)	2,007	3,219	3,632	2,879
Debt Ratio (2026/27)	90%	86%	86%	88%
Base Capital Coverage Ratio (Avg)	1.09	1.38	1.46	1.37
Overall Capital Coverage $M (Avg)	-608	-454	-766	-842
EBITDA (Avg)	1.45	1.62	1.67	1.61

Notes: 1) IFF14 presentation was not prepared per IFRS (i.e., excluded "Net Movement")
2) Total Fixed Assets Includes Assets In Service (NBV) and Under Construction
3) Overall Capital Coverage is based on Cash from Operations less Investment in PP&E

Sources: 1) 2015/16& 2016/17 GRA, Appendix 3.4 & 11.13
2) Supplemental Filing for Interm Rates for August 1, 2017, Attachment 1
3) Appendix 3.4 and COALITION/MH II-48 a)
4) IFF16 U/I @ MH 15 Rates - PUB/MH I-34 - Attachment 2

Schedule 14 - per MH/COALITION (HARPER) - 5

Cumulative Comparative Results - $M (2018-2034)

	IFF14	IFF15	IFF16 - 3.95%	IFF16 U/I @3.95%
Revenues				
Domestic Revenues	41,654	41,202	38,635	38,326
BP III Reserve	-47	-90	198	194
Exports	14,371	13,938	11,626	11,220
Other Revenue	287	839	600	600
Total	56,266	55,891	51,028	50,343
Expenses				
O&A	11,190	11,190	9,799	9,799
Finance	20,154	17,525	16,650	17,791
Depreciation	12,434	11,764	11,802	11,809
Water Rentals	2,195	2,195	2,154	2,167
Fuel & PP	4,624	3,956	2,451	2,350
Taxes	2,700	2,756	2,861	2,883
Corp Allocation	123	113	109	113
Other	44	1,613	1,849	1,850
Total	53,470	51,117	47,676	48,767
Net Movement	-	72	377	397
Non Control Interest	-72	-83	-95	-100
MH Net Income	2,725	4,760	3,666	1,860
Capital Spending (incl DSM)	17,429	17,683	20,036	20,037
In-Service Asset (2033/34)	24,921	25,054	26,909	26,739
Total Fixed Assets (2033/34)	25,176	25,197	27,173	27,139
Regulated Assets (2033/34)	311	532	836	860
Retained Earnings (2033/34)	5,557	7,402	6,395	4,619
Debt Ratio (2033/34)	75%	69%	75%	81%
Base Capital Coverage Ratio (Avg)	1.47	1.74	1.65	1.52
Overall Capital Coverage $M (Avg)	-106.94	29.06	-217.29	-321
EBITDA (Avg)	1.71	1.88	2.00	1.76

Notes:
1) IFF14 presentation was not prepared per IFRS (i.e., excluded "Net Movement")
2) Total Fixed Assets Includes Assets In Service (NBV) and Under Construction
3) Overall Capital Coverage is based on Cash from Operations less Investment in PP&E

Sources:
1) 2015/16& 2016/17 GRA, Appendix 3.4 and 11.13
2) Supplemental Filing for Interm Rates for August 1, 2017, Attachment 1

MH/COALITION (HARPER) I - 6

Reference:

Section 4.2, page 36

Preamble:

Mr. Harper provides a list of Regulatory Deferral Accounts on pages 36 and 37 of his report and goes on further to describe how they are amortized for rate-setting purposes.

Question:

Please explain why the DSM deferred asset account was excluded from the list of “Regulatory Asset Accounts” included on page 36 of Section 4.2.

Response:

The DSM deferral account is included in the list of regulatory accounts on page 36. It is included under the heading Regulatory Liability Accounts as it appears under the Liabilities and Equity section of the Balance Sheet (i.e., it’s an amount owing to customers).

MH/COALITION (HARPER) I - 7

Reference:

Section 4.3, page 39

Preamble:

Mr. Harper discusses how regulatory costs associated with the Bipole III and Keeyask projects should be amortized for rate-setting purposes.

Question:

a) As discussed on page 39, please explain Mr. Harper's understanding as to how Manitoba Hydro has accounted for the regulatory costs associated with the CEC proceedings for the Bipole III project and the NFAT Application associated with the Keeyask project.

Response:

a) Mr. Harper is not certain as to how the Manitoba Hydro accounted for the regulatory costs associated with the CEC proceedings for the Bipole III project and the NFAT Application associated with the Keeyask project. In preparation of his evidence Mr. Harper reviewed the various materials provided and was unable to find a reference that specifically dealt with the issue. As result, the evidence makes no specific claim or statement regarding the treatment of these costs. Rather it observes that the 5 years used for "regulatory proceedings" would not be appropriate in such instances.

MH/COALITIO (HARPER) - 8

Reference:

Section 4.4.2, Schedule 20, page 45

Preamble:

Mr. Harper provided a schedule identifying the net regulatory asset balance as a percentage of Total Assets for a number of different utilities. c

Question:

a) For Manitoba Hydro only, please restate Schedule 20 by replacing the “Total Assets” column with the Total Number of Customers and replacing the “Net Balance / Total Assets” column with the Net Balance / Number of Customers so as to quantify the net regulatory deferred asset balance per customer for Manitoba Hydro for 2017 and 2035.

Response:

a) A version of Table 20 including only Manitoba Hydro and revised as requested is set out below.

Schedule 20 – Revised per MH/COALITION (HARPER) - Regulatory Assets ($M)

UTILITY	Regulatory Asset Balance	Regulatory Liability Balance	Net Regulatory Account Balances	Total Customers	Net Balance / Total Customers
Manitoba Hydro (2017)	566	77	489	570,712	$857
Manitoba Hydro – Electric (2035 – Attach 28)	1,888	0	1,888	681,960	$2,768

Sources: Manitoba Hydro 2016/17 Annual Financial Report
PUB MFR 65, Attachment 1 (2017 Load Forecast), page 5

MH/COALITION (HARPER) - 9

Reference:

Section 5, Page 82

Preamble:

Mr. Harper states "While the ranges used vary by regulatory jurisdiction, the ranges most typically used are 95% to 105% and 90% to 110%. Choices of the range is a matter of judgment but often involves consideration such as maturity of the utility's COSS and the quality of the data used."

Question:

a) Please provide the regulatory jurisdictions reviewed by Mr. Harper to support the statement above.

b) Please provide the revenue to cost ratios for the different customer classes in the regulatory jurisdictions reviewed.

c) Please provide any other observations made while reviewing the regulatory jurisdictions in terms of the maturity of the utility's COSS, quality of data used and any other relevant factors noted.

Response:

a) and

b) The table below sets out the regulatory jurisdictions reviewed by Mr. Harper. The referenced Decisions/Orders do not document the actual revenue to cost ratios by customer class.

c) Discussion regarding appropriate R/C ratio range of reasonableness included considerations such as:

- Historical precedent
- Quality of load data
- Status of cost of service methodology

Other observations included:

- Recognition of the ZOR as a rate making tool
- Revenue to cost ratio adjustments should be mindful of customer class rate impacts

Regulator	Reference	Utility	R/C Ratio Range of Reasonableness
Yukon Utilities Board	Board Order 2005-1	Yukon Energy Corporation	90% - 110%
British Columbia Utilities Commission	BC Hydro RDA Phase 1, October 2007 Decision	BC Hydro	95% - 105%
	Order G-156-10	FortisBC Inc.	95% - 105%
Alberta Utilities Commission	Decision 2012-071	Atco Electric	95% - 105%
Ontario Energy Board	EB-2010-0219	Electric Distribution Utilities	Varies by customer class from 70%-120% to 85%-115%
New Brunswick Energy and Utilities Board	2016 Decision, Matter 271	New Brunswick Power Corporation	95% - 105%
Nova Scotia Utility and Review Board	2014 NSUARB 53	Nova Scotia Power	95% - 105%
Island Regulatory and Appeals Commission	Order UE16-04R	Martime Electric	90% - 110%
Newfoundland & Labrador Board of Commissioners of Public Utilities	Order No. P.U. 13 (2013)	Newfoundland Power	90% - 110%

MH/COALITION (HARPER) - 10

Reference:

Section 5, Page 86, Schedule 23

Direct Testimony of Paul Chernick, Page 29, Table 3

Preamble:

Manitoba Hydro notes that both Mr. Harper and Mr. Chernick have recommended similar revisions to the marginal cost of transmission and distribution to reflect differences in customer class load factors. Mr. Chernick has made the additional recommendation to include the environmental cost of avoided emission associated with generators located outside of Manitoba.

Question:

a) Please provide your view on the appropriateness of including avoided emission costs in the calculation of marginal costs in the manner recommended in the direct testimony of Mr. Chernick.

Response:

a) Mr. Harper notes that marginal costs are used for a number of purposes and the calculation varies accordingly. It is assumed that the question is asking about the calculation of marginal costs for use in designing rates. In this context, it is Mr. Harper's view that the calculation should reflect the marginal costs that utility will incur and, therefore, would not include the environmental cost of avoided emissions associated with generators located outside of Manitoba.

   The purpose in considering marginal costs in rate making is to ensure customers are receiving an appropriate price signal regarding the cost implications of their decisions regarding electricity use. Manitoba Hydro core objective is to "supply of power adequate for the needs of the province, and to engage in and to promote economy and efficiency in the development, generation, transmission, distribution, supply and end-use of power" (*Manitoba Hydro Act*, section 2). As result, the appropriate "price signal" is one that reflects the utility's cost of generating, transmitting, distributing and supplying electricity.

MH/COALITION (HARPER) - 11

Reference:

Section 6, page 93, Schedule 25

Question:

a) Please provide your assessment of the merits of the rate design proposals provided by Mr. Chernick and summarized in Table 6, page 38 of his evidence. Please provide in a table in the form shown in Schedule 25, page 93 of your evidence.

Response:

a) The following tables provide the requested assessments for each of the four rate designs proposed by Mr. Chernick.

In his evidence, Mr. Chernick references LICO-125 as the basis for determining eligibility for some of the proposed options and simply LICO for others. It is not clear if this was intentional. The assessment is based on the assumption that LICO-125 is the eligibility basis for all of the proposals. If this is not the case then there would additional concerns with respect to the "Simplicity and Understandability" objective.

Finally, it is not clear to Mr. Harper how the non-LICO (inclining block) Residential rate design works in conjunction with the other proposed rate designs. For purposes of the assessment it is assumed this rate would apply to all customers not eligible for any of the other rate design options (i.e., Residential customers that do not meet the LICO-125 criterion and do not have electric space heating).

MH/COALITION 11- Table 1: Assessment of Mr. Chernick's LICO-125 All Rate Design

Ratemaking Objective	Consideration	Merits Relative to Current Design
Recovery of Revenue Requirement	Rates must provide Manitoba Hydro the opportunity to fully recover its allowed revenue requirement. Stability of revenue from year to year	Minimal effect on usage forecasts. Impact on revenues not known until eligible customers identified.
Fairness and Equity	Rates should reflect cost to serve and treat equal customers equally (i.e., same "rates"). Usually judged using COSS principles.	Unknown, depends upon load characteristics of eligible customers and whether "cost-to-serve" is greater or less than the Residential class overall Customers receiving similar service will pay different "rates".
Rate Stability	Stability of rate structures over time with gradual changes when required	Minor impact on rate stability for non-eligible customers depending upon how lost revenues recovered
Efficiency	Provide appropriate price signals regarding the value of energy so as to promote the efficient and economic use of electricity. Usually judged using marginal cost principles	Will reduce the price signal relative to marginal costs for eligible customers using less than 500 kWh per month.
Simplicity and Understandability	Customers should easily understand how changes in usage will affect their bills	Enhanced administrative procedures required to identify and quality "eligible" customers. Bill calculation similar & easy to understand
Public Acceptance and Public Policy	Support public policy and reflect public consensus.	Addresses previous public interest issues raised by PUB regarding low income customers. Degree of "public acceptance" unknown.

MH/COALITION 11- Table 2: Assessment of Mr. Chernick's Non-LICO-125 ESH Rate Design

Ratemaking Objective	Consideration	Merits Relative to Current Design
Recovery of Revenue Requirement	Rates must provide Manitoba Hydro the opportunity to fully recover its allowed revenue requirement. Stability of revenue from year to year	Minor effect on usage forecasts. Impact on revenues not known until non-LICO-125 customers identified.
Fairness and Equity	Rates should reflect cost to serve and treat equal customers equally (i.e., same "rates"). Usually judged using COSS principles.	Will result in lower "rates" for higher cost to serve customers (i.e., ESH). ESH distinction may reduce concern about similar customers paying different rates.
Rate Stability	Stability of rate structures over time with gradual changes when required	Minor impact on rate stability for non-eligible customers depending upon how lost revenues recovered
Efficiency	Provide appropriate price signals regarding the value of energy so as to promote the efficient and economic use of electricity. Usually judged using marginal cost principles	Will reduce the price signal relative to marginal costs for non-LICO-125 customers with use only in the first energy block.
Simplicity and Understandability	Customers should easily understand how changes in usage will affect their bills	Enhanced administrative procedures required to identify and quality "eligible" customers. Bill calculation similar & easy to understand
Public Acceptance and Public Policy	Support public policy and reflect public consensus.	Addresses previous public interest issues raised by PUB regarding electric space heating customers. Degree of "public acceptance" unknown.

MH/COALITION 11- Table 3: Assessment of Mr. Chernick's LICO-125 ESH Rate Design (in conjunction with the LICO-125 All Rate Design)

Ratemaking Objective	Consideration	Merits Relative to Current Design
Recovery of Revenue Requirement	Rates must provide Manitoba Hydro the opportunity to fully recover its allowed revenue requirement. Stability of revenue from year to year	Some effect on usage forecasts. Impact on revenues not known until non-LICO-125 customers identified.
Fairness and Equity	Rates should reflect cost to serve and treat equal customers equally (i.e., same "rates"). Usually judged using COSS principles.	Will result in lower "rates" for higher cost to serve customers (i.e., ESH). ESH distinction may reduce concern about similar customers paying different rates for that aspect of the design.
Rate Stability	Stability of rate structures over time with gradual changes when required	Minor impact on rate stability for non-eligible customers depending upon how lost revenues recovered
Efficiency	Provide appropriate price signals regarding the value of energy so as to promote the efficient and economic use of electricity. Usually judged using marginal cost principles	Will reduce the price signal relative to marginal costs for all ESH customers with use only in the first energy block.
Simplicity and Understandability	Customers should easily understand how changes in usage will affect their bills	Enhanced administrative procedures required to identify and quality "eligible" customers. Bill calculation similar & easy to understand
Public Acceptance and Public Policy	Support public policy and reflect public consensus.	Addresses previous public interest issues raised by PUB regarding low income &

		electric space heating customers. Degree of "public acceptance" unknown.

MH/COALITION 11- Table 4: Assessment of Mr. Chernick's non-LICO-125 Inclining Block Rate Design

Ratemaking Objective	**Consideration**	**Merits Relative to Current Design**
Recovery of Revenue Requirement	Rates must provide Manitoba Hydro the opportunity to fully recover its allowed revenue requirement. Stability of revenue from year to year	Greater effect on usage forecasts. Use of energy blocks will increase revenue uncertainty
Fairness and Equity	Rates should reflect cost to serve and treat equal customers equally (i.e., same "rates"). Usually judged using COSS principles.	Based on cost to serve class similar to current. Customers receiving similar service will pay different "rates"
Rate Stability	Stability of rate structures over time with gradual changes when required	Minor if differential introduced gradually
Efficiency	Provide appropriate price signals regarding the value of energy so as to promote the efficient and economic use of electricity. Usually judged using marginal cost principles	For those customers using more than 500 kWh / month, will likely increase the disparity between the rates paid for marginal use and marginal costs.
Simplicity and Understandability	Customers should easily understand how changes in usage will affect their bills	Enhanced administrative procedures required to identify and quality "eligible" customers. Bill calculation similar & easy to understand
Public Acceptance and Public Policy	Support public policy and reflect public consensus.	Degree of "public acceptance" unknown.

MH/COALITION (HARPER) - 12

Reference:

Section 6, page 101

Preamble:

In discussing Manitoba Hydro's alternative rate design, Mr. Harper suggests the PUB could choose to offer such a rate design only to low income customers, and then goes on to note: "In addition there are likely segments of Manitoba Hydro's residential customer base that are readily identified as being low income (e.g., those already qualifying for some form of government social assistance) and, indeed, some of these may already be receiving government assistance for their electricity bill."

Question:

Should customers receiving direct or indirect assistance for electricity costs through social assistance or other programs be eligible for a ratepayer funded "bill affordability mechanisms"? If yes, please elaborate.

Response:

In Mr. Harper's view, the expectation of a Bill Affordability program related to low income should be that it will, where warranted, offset the impact of recent and future Manitoba Hydro's rate increases rather than one that attempts to address broader low income issues.

Given this context, whether customers receiving direct or indirect assistance for electricity costs through social assistance or other programs should be eligible for a ratepayer funded "bill affordability mechanisms" would depend on the nature and basis for the assistance currently being received and the degree assistance that is to be provided by the bill affordability mechanism.

For example, if a customer's bill is currently being directly paid by another agency or social assistance program then the answer would be no.

If the customer is receiving payments to assist with electricity costs but those payments are not linked to the customer's actual use of electricity or escalate in line with the changes in electricity rates, the answer is probably yes. The same answer would apply if such assistance payments were deemed to be income in an eligibility determination based on measures such as LICO-125.

MH/COALITION (HARPER) - 13

Reference:

Section 6, page 101

Question:

Should a low-income bill assistance program be funded by all ratepayers, a segment of ratepayers or government?

Response:

Ideally there would be no low-income issue and/or it would be adequately addressed by government. However, such is not the case and the PUB has flagged a public policy/interest issue regarding the impact of Manitoba Hydro's rates on low income customers.

As noted on page 103 of the ECS evidence, if the Board determines that a rate-payer funded low-income assistance program is appropriate then "there appears to be little rationale for limiting the basis of recovery to just the ineligible Residential customers and widening the "recovery base" would reduce the impact associated with the recovery." On this basis, recovery from all ratepayers would be more appropriate.

MH/COALITION (HARPER) - 14

Reference:

Section 6, page 103

Order 164/16, page 5

Preamble:

Mr. Harper states: "Finally, if public policy and public acceptance are the main basis for adopting the Alternative Rate Design, a legitimate question arises as to whether cost responsibility for any lost revenue should be the responsibility of the other customers in just the Residential class or borne widely. Indeed, there appears to be little rationale for limiting the basis of recovery to just the ineligible Residential customers and widening the "recovery base" would reduce the impact associated with the recovery."

PUB Order 164/16, at page 6, states "Manitoba Hydro incurs costs to provide service to its customers, but some customers "cause" more costs than others. Customers who do not use selected services and facilities of Manitoba Hydro do not cause Manitoba Hydro to incur the associated costs…. The Board accepts and applies the principle of cost causation in establishing the appropriate method of allocating Manitoba Hydro's financial costs to the various customer classes."

Question:

a) Please confirm that the "lost revenue" being referred to by Mr. Harper consists of costs allocated to the residential customer class pursuant to the methodology accepted by the PUB in Order 164/16.

b) How does Mr. Harper reconcile widening the “recovery base” for costs appropriately allocated to residential customers through the PUB ordered COSS to various customer classes who have not been allocated those costs?

Response:

a) Not confirmed. The lost revenues being referred to are the “revenues” low income customers would have paid in the absence of the alternative rate design/bill assistance program.

b) The referenced quote from Order 164/16 outlines the Board’s view that the principle of cost causation should be applied in establishing the appropriate method of allocating Manitoba Hydro’s financial costs to the various customer classes for purposes of Manitoba Hydro’s cost of service study.

However, Order 164/16 also clearly notes that cost of service considerations are but one input into determination of Manitoba Hydro’s rates as evidenced by the statement:

> Using the tools available to the Board, including the approved COSS, the Board then reviews and approves Manitoba Hydro’s rate design and establishes the resulting rates. In setting domestic electricity rates, the Board has discretion as to what, if any, use is made of the COSS (Order 164/16, page 16).

At page 102 the ECS evidence concluded that a decision in favour of Manitoba Hydro’s Alternative Rate Design (to assist electric heat customers) would need to acknowledge (and find acceptable) the departure from cost of service principles and would be justified its merits with respect to public policy and public acceptability considerations. The same conclusion applies for rate designs targeting for low income customers. A low income "rate" does not represent a "fine tuning" of the rates for a particular customer class (in this case Residential) based on cost of service principles. Rather the determination that an alternative rate design is appropriate for a particular segment of customers would be based on other (non-cost of service) considerations.

As a result, non-low income residential customers cannot be viewed as being any more or less "responsible" for the costs than any Manitoba Hydro customers in one of the other customer classes.

MH/COALITION (HARPER) - 15

Reference:

Section 7, Page 105

Preamble:

Mr. Harper states at page 105 that (emphasis added):

"In terms of role, the results of the cost of service study (i.e., the revenue to cost ratios) are but one input into the ultimate decision as to the rates that will be charged to a customer class and the revenues that will result. In this context, the zone of reasonableness should be used to recognize the lack of precision in the cost of service methodology and **not to define the range of acceptable outcomes for the Board's overall decisions on rates and revenues by customer class**. These decisions must also take into account a number of other ratemaking objectives."

Question:

a) Please confirm that Mr. Harper is recommending that the impact of public policy initiatives should not be constrained by the application of a zone of reasonableness. Please provide an illustrative example of how the zone of reasonableness should be interpreted and applied if it would assist in the clarification of his view.

Response:

a) Mr. Harper is recommending that the zone of reasonableness should not constrain the discretion of the Board in setting the rates as provided for in the *Crown Corporations Governance and Accountability Ac*t (section 25 (4)). This would include not constraining the outcome of public policy considerations that the Board may view as being appropriate in determining Manitoba Hydro's rates. This recommendation is viewed as being consistent with the Board's statement in Order 164/16 (page 16) that:

"Using the tools available to the Board, including the approved COSS, the Board then reviews and approves Manitoba Hydro's rate design and establishes the resulting rates. In setting domestic electricity rates, the Board has discretion as to what, if any, use is made of the COSS".

Fairness and cost of service is one of the considerations that the Board takes into account in determining the rates to be charged to Manitoba Hydro's domestic customers. It is in this context that the ZOR comes into play. For the reasons cited on pages 81-82 of the ECS evidence, customers should be considered to be paying their fair share of costs if their customer class revenue to cost ratio falls within the ZOR.

MH/COALITION (HARPER) - 16

Reference:

Section 7, Page 105

Preamble:

Mr. Harper states at page 105 that (emphasis added):

"It was also noted that Manitoba Hydro's requested rate increase is significantly higher than the rate of inflation and **several of the ratemaking objectives would have to align or other accommodations also be made** before even higher average rate increases for one or more of the customer classes could be considered."

Question:

a) Please clarify what is meant by the statement "several of the ratemaking objectives would have to align or other accommodations also be made" in the cited material.

Response:

a) Manitoba Hydro's is proposing a 7.9% rate increases for 2018/19 and indicating similar increases will be required in the subsequent years. This is more than double the level of rate increase customers have historically experienced and approaching double digit levels. In this context, the requested general rate increase is already at odds with elements of the rate setting objectives regarding rate stability and public acceptability.

   Given this context, the statement was expressing the view that any decision to impose even higher rate increases on one or more particular customer classes would have to have compelling justification. It was also expressing the view that, in order to be sufficiently compelling, the justification for differentiated class rate increases would need to align with a number (e.g. more than just one) of the ratemaking objectives.

   The reference to "other accommodations" was meant to acknowledge that the Board may have other reasons for accommodating rate increases that are differentiated by rate class.