Morrison Park Advisors

Calculation of Manitoba Hydro Debt Ratios (Electric Operations Only)

Attachment to MPA Presentation to PUB - January 15, 2018 (Refer to pp. 17 - 18)

Manitoba Hydro Revised Version - Attachment to February 1, 2018 Presentation (Refer to pp. 4-6)

Note: additions to MPA analysis (Exhibit CC-45-1) are in boldface and boxed Electric Operations Debt Ratio Calculation (Source: PUB/MH I - 33)

Fiscal Year Ended 2012	Retained Earnings 2450	Retained Earnings Gas 34	Retained Earnings Subs 26	Adjustments and Eliminations	Retained Earnings 2390	Unamortized Customer Contributions Consolidated	Unamortized Customer Contributions Gas	Unamortized Customer Contributions 285	Accumulated Other Comprehensive Income	Non- controlling Interest	Long-Term Debt 9084	Sinking Fund Investment 372	Short-term Investments	Net Equity 3102	Net Debt 8670	Equity Ratio	Debt Ratio	Accounting Standard CGAAP
2013	2542	42	32		2468	340	33	307	299	95	9690	352	24	3169	9314	25.4%	74.6%	CGAAP
2014	2716	62	39		2615	381	42	339	96	73	10563	111	131	3123	10321	23.2%	76.8%	CGAAP
2015	2779	66	48	6	2659	457	42	415	-720	120	12375	114	482	2474	11779	17.4%	82.6%	IFRS
2016	2828	65	57	10	2696	534	45	489	-776	140	14187	0	944	2549	13243	16.1%	83.9%	IFRS
2017	2899	69	69	12	2749	651	45	606	-709	170	16078	0	634	2816	15444	15.4%	84.6%	IFRS
Adjusted for IFR	Retained	ension treatmen	nt in AOCI only (: Retained	Source of pension a	emount includ	ed in AOCI: MIPUG Unamortized Customer Contributions	/MH I - 20: 2015 \$ Unamortized Customer Contributions	559 M; 2016 \$567 Unamortized Customer	M; 2017 \$473 M Accumulated Other Comprehensive	Non- controlling	Long-Term	Sinking Fund	Short-term					Accounting
Ended	Earnings	Earnings Gas	Farnings Subs	and Eliminations	Earnings	Consolidated	Gas	Contributions	Income	Interest	Debt	Investment	Investments	Net Equity	Net Debt	Equity Ratio	Debt Ratio	Standard
	Larrings	Lui illiga Gua	Larrings Subs	and Liminations	Luitings	Consonautea	003		meome	interest	DCDC	mvestment		,	.vec bebt	Equity Natio	DCDL Natio	
2012	2450	34	26	and Eliminations	2390	318	33	285	327	100	9084	372	42	3102	8670	26.4%	73.6%	CGAAP
2012 2013			-	and ciminations														
	2450	34	26	and Eliminations	2390	318	33	285	327	100	9084	372	42	3102	8670	26.4%	73.6%	CGAAP
2013	2450 2542	34 42	26 32	6	2390 2468	318 340	33 33	285 307	327 299	100 95	9084 9690	372 352	42 24	3102 3169	8670 9314	26.4% 25.4%	73.6% 74.6%	CGAAP CGAAP
2013 2014	2450 2542 2716	34 42 62	26 32 39		2390 2468 2615	318 340 381	33 33 42	285 307 339	327 299 96	100 95 73	9084 9690 10563	372 352 111	42 24 131	3102 3169 3123	8670 9314 10321	26.4% 25.4% 23.2%	73.6% 74.6% 76.8%	CGAAP CGAAP CGAAP
2013 2014 2015	2450 2542 2716 2779	34 42 62 66	26 32 39 48	6	2390 2468 2615 2659	318 340 381 457	33 33 42 42	285 307 339 415	327 299 96 -161	100 95 73 120	9084 9690 10563 12375	372 352 111 114	42 24 131 482	3102 3169 3123 3033	8670 9314 10321 11779	26.4% 25.4% 23.2% 20.5%	73.6% 74.6% 76.8% 79.5%	CGAAP CGAAP CGAAP Adjusted
2013 2014 2015 2016 2017	2450 2542 2716 2779 2828 2899	34 42 62 66 65 69	26 32 39 48 57 69	6 10	2390 2468 2615 2659 2696 2749	318 340 381 457 534 651	33 33 42 42 45 45	285 307 339 415 489 606	327 299 96 -161 -209 -236	100 95 73 120 140	9084 9690 10563 12375 14187	372 352 111 114 0	42 24 131 482 944	3102 3169 3123 3033 3116	8670 9314 10321 11779 13243	26.4% 25.4% 23.2% 20.5% 19.0%	73.6% 74.6% 76.8% 79.5% 81.0%	CGAAP CGAAP CGAAP Adjusted Adjusted
2013 2014 2015 2016 2017	2450 2542 2716 2779 2828 2899	34 42 62 66 65 69 Projects: Remo	26 32 39 48 57 69	6 10 12 ong-Term Debt to r	2390 2468 2615 2659 2696 2749	318 340 381 457 534 651	33 33 42 42 45 45 45	285 307 339 415 489 606	327 299 96 -161 -209 -236	100 95 73 120 140 170	9084 9690 10563 12375 14187 16078	372 352 111 114 0	42 24 131 482 944 634	3102 3169 3123 3033 3116 3289	8670 9314 10321 11779 13243 15444	26.4% 25.4% 23.2% 20.5% 19.0% 17.6%	73.6% 74.6% 76.8% 79.5% 81.0% 82.4%	CGAAP CGAAP CGAAP Adjusted Adjusted Adjusted
2013 2014 2015 2016 2017 2012 Adjusted 1	2450 2542 2716 2779 2828 2899	34 42 62 66 65 69 Projects: Remo	26 32 39 48 57 69	6 10 12 ong-Term Debt to r	2390 2468 2615 2659 2696 2749 epresent the	318 340 381 457 534 651 capitalized cost of	33 33 42 42 45 45 45 33	285 307 339 415 489 606	327 299 96 -161 -209 -236	100 95 73 120 140 170	9084 9690 10563 12375 14187 16078	372 352 111 114 0	42 24 131 482 944 634	3102 3169 3123 3033 3116 3289	8670 9314 10321 11779 13243 15444	26.4% 25.4% 23.2% 20.5% 19.0% 17.6%	73.6% 74.6% 76.8% 79.5% 81.0% 82.4%	CGAAP CGAAP CGAAP Adjusted Adjusted Adjusted

MH 2017 Adjusted for IFRS Impact, Major Projects and Removal of Non-Operational or Non-Recurring Cash Injections					
Conawapa Work in Progress		-379			
Bipole III Deferred Revenues ¹	-196	196			
Wind Farm Loan Repayment ²		250			
Bipole III Interest Capitalized ³	-55	55			
Export Revenues Attributable to Above Average Water ³	-219	219			
Non-Recurring Gain ⁴	-20	20			
	-490	361			
	2799	9322	23.1%	76.9%	
			28.5%	71.5%	
	2012 CGAAP (above) - adjusted for ma				
² Appendix 6.1, The Manitoba Hydro-Electric Board 64th Annual Report, Note 21, p.83					
³ Manitoba Hydro Exhibit #64, slide 44	Deterioration	on in Ratios	-5.4%	5.4%	
⁴ The Manitoba Hydro-Electric Board 65th Annual Report, Note 26, p.84					