

CAC/MSOS/MH/PRE-ASK-2

Reference: Volume 2, Appendix 5.2
Volume 8, PUB/MH I-200 (c)

Preamble: Manitoba Hydro provided its IFF09-01 in Appendix 5.2 and a separate version of IFF09 showing projected results under a 5 year drought beginning in 2012 in PUB/MH I-200 (c). Under the latter Manitoba Hydro held the annual increases to revenue for general consumers the same as in the former (as well as the “Percent Increase to Additional General Consumers Revenue”) in a scenario of a five year drought beginning in 2012 and showed the impact on, among other things, the debt equity ratio. CAC/MSOS would like to understand the impact and sensitivities on “Percent Increase to Additional General Consumers Revenue” under the 5 year drought scenario beginning in 2012 where debt equity is held constant. For that purpose, CAC/MSOS has prepared a table contained in CAC/MSOS/MH/PRE-ASK-1 Attachment 1 to capture those impacts and sensitivities.

- a) Please complete the attached table by inserting, on the shaded lines (i.e. line numbers 8, 11, 20, 23, 26, 29 and 32), the percentage increase/decrease to additional general consumers revenue for each year, during the period 2011 to 2020, to achieve the debt equity ratio in the line below each shaded line.

Manitoba Hydro
2010/11 - 2011/12 GRA
Annual Percent Increase/Decrease (Change) in Additional General Consumers Revenue Under Various Scenarios for No Drought and Drought

No Drought		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	As per IFF09-01											
2	Percent Increase in Additional General Consumers Revenue ¹		2.90%	2.90%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
3	Projected Debt Equity Ratio ("D/E") ²	74:26	75:25	76:24	76:24	78:22	79:21	80:20	80:20	80:20	80:20	79:21
4	Using IFF09-01											
5	Percent Change in Additional General Consumers Revenue to achieve a D/E											
6	Under each of the following two scenarios ³											
7	Scenario # 1 - D/E = 75:25 (constant)		75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25
8	Percent Change in Additional General Consumers Revenue											
9	Debt Equity Ratio		75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25
10	Scenario # 2 - D/E = 80:20 (constant)		80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20
11	Percent Change in Additional General Consumers Revenue											
12	Debt Equity Ratio		80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20

Drought		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
13	As per IFF09-01 with Five Year Drought beginning 2011-12											
14	Percent Increase in Additional General Consumers Revenue ⁴		2.90%	2.90%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
15	Projected Debt Equity Ratio ⁴	74:26	75:25	80:20	86:14	90:10	93:7	95:5	95:5	95:5	95:5	95:5
16	Using IFF09-01 with Five Year Drought Beginning 2011-12											
17	Percent Change in Additional General Consumers Revenue to achieve a D/E											
18	Under each of the following five scenarios ⁵											
19	Scenario # 1 - D/E = 95:5 (constant)		95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5
20	Percent Change in Additional General Consumers Revenue											
21	Debt Equity Ratio		95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5	95:5
22	Scenario # 2 - D/E = 90:10 (constant)		90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10
23	Percent Change in Additional General Consumers Revenue											
24	Debt Equity Ratio		90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10	90:10
25	Scenario # 3 - D/E = 85:15 (constant)		85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15
26	Resulting Percent Change in Additional General Consumers Revenue											
27	Debt Equity Ratio		85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15
28	Scenario # 4 - D/E = 80:20 (constant)		80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20
29	Percent Change in Additional General Consumers Revenue											
30	Debt Equity Ratio		80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20
31	Scenario # 5 D/E = 75:25 (constant)		75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25
32	Percent Change in Additional General Consumers Revenue											
33	Debt Equity Ratio		75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25

Notes:

- ¹ Manitoba Hydro 2010/11 - 2011/12 GRA, Volume 2, Appendix 5.2, page 34
- ² Manitoba Hydro 2010/11 - 2011/12 GRA, Volume 2, Appendix 5.2, page 24
- ³ Assumptions for load forecast, export and import prices, and currency exchange rates are consistent with those in IFF09-01 used in Appendix 5.2
- ⁴ PUB/MH I-200 (c), page 2 of 7
- ⁵ Assumptions for load forecast, export and import prices, and currency exchange rates are consistent with those in IFF09 used in PUB/MH I-200 (c), page 2 of 7

ANSWER:

Please refer to the table below.

Please note that rates were not adjusted in the test years 2010/11 and 2011/12. Where the base case debt/equity ratio exceeded the requested debt/equity ratio, rates were adjusted to zero in the debt/equity ratio case until the requested debt/equity ratio was achieved. Thereafter, rates are adjusted as necessary to maintain the requested debt/equity ratio.

Manitoba Hydro
2010/11 - 2011/12 GRA

Annual Percent Increase/Decrease (Change) in Additional General Consumers Revenue Under Various Scenarios for No Drought and Drought

	No Drought										Drought										Cumulative	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
1	As per MH10																					
2	Percent Increase in Additional General Consumers Revenue ¹																					
3	Projected Debt/Equity Ratio ("D/E")																					
4	74:26	74:26	76:24	77:23	79:21	80:20	80:20	80:20	81:19	81:19	74:26	74:26	76:24	77:23	79:21	80:20	80:20	80:20	81:19	81:19	35.50%	
5	Using MH10																					
6	Percent Change in Additional General Consumers Revenue to achieve a D/E																					
7	Under each of the following two scenarios ²																					
8	Scenario # 1 - D/E = 75:25 (constant)																					
9	2.90%	2.90%	14.35%	1.16%	12.37%	-0.63%	-6.59%	8.33%	5.66%	-2.96%	2.90%	74:26	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	37.91%
10	Scenario # 2 - D/E = 80:20 (constant)																					
11	2.90%	2.90%	0.00%	0.00%	9.39%	16.88%	-6.37%	7.65%	5.84%	-2.28%	2.90%	74:26	77:23	78:22	80:20	80:20	80:20	80:20	80:20	80:20	80:20	37.15%
12	Debt Equity Ratio																					
13	Drought																					
14	As per MH10 with Five Year Drought beginning 2012-13																					
15	Percent Increase in Additional General Consumers Revenue																					
16	Projected Debt/Equity Ratio																					
17	74:26	74:26	79:21	85:15	88:12	90:10	92:8	92:8	92:8	92:8	74:26	74:26	79:21	85:15	88:12	90:10	92:8	92:8	92:8	92:8	92:8	35.50%
18	Using MH10 with Five Year Drought Beginning 2012-13																					
19	Percent Change in Additional General Consumers Revenue to achieve a D/E																					
20	Under each of the following five scenarios																					
21	Scenario # 1 - D/E = 95:5 (constant)																					
22	2.90%	2.90%	0.00%	0.00%	0.00%	0.00%	19.78%	2.51%	6.60%	-0.15%	2.90%	74:26	79:21	86:14	90:10	94:6	95:5	95:5	95:5	95:5	95:5	34.50%
23	Scenario # 2 - D/E = 90:10 (constant)																					
24	2.90%	2.90%	0.00%	0.00%	0.00%	43.58%	-5.51%	-8.29%	6.36%	-0.89%	2.90%	74:26	79:21	86:14	90:10	90:10	90:10	90:10	90:10	90:10	90:10	34.97%
25	Scenario # 3 - D/E = 85:15 (constant)																					
26	2.90%	2.90%	0.00%	9.99%	29.23%	2.85%	-6.53%	-7.52%	6.11%	-1.60%	2.90%	74:26	79:21	85:15	85:15	85:15	85:15	85:15	85:15	85:15	85:15	35.76%
27	Scenario # 4 - D/E = 80:20 (constant)																					
28	2.90%	2.90%	0.00%	59.78%	-10.41%	3.39%	-6.95%	-6.79%	5.84%	-2.22%	2.90%	74:26	79:21	80:20	80:20	80:20	80:20	80:20	80:20	80:20	80:20	36.70%
29	Scenario # 5 D/E = 75:25 (constant)																					
30	2.90%	2.90%	41.16%	18.18%	-13.52%	4.01%	-7.43%	-6.07%	5.56%	-2.96%	2.90%	74:26	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	75:25	37.53%
31	Percent Change in Additional General Consumers Revenue																					
32	Debt Equity Ratio																					
33																						

Notes:

¹ Manitoba Hydro 2010/11 - 2011/12 GRA, Appendix 76, page 33

² Assumptions for load forecast, export and import prices, and currency exchange rates are consistent with those in MH10 used in Appendix 76