Board Counsel Book of Documents

Volume 4

Revenue Requirement Panel

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MFR 18 (Amended)

Prior references
MFR 12, 2017/18 & 2018/19 GRA

Financial Information

Updated schedule of rate increases and CPI filed in response to MFR 12 from the 2017/18 and 2018/19 GRA that includes the years up to the current year.

Please see Figure 1 below.

Figure 1 Historical Rate Increases

Year	% Rate Increase Requested	% Approved Final/Interim	MB CPI (fiscal)	Fiscal Yr Revenue Increases	Annual Increase in Revenue ($millions)	Cumulative % Increase	Cumulative MB CPI	Cumulative Additional Revenue from Rate Increases	% of Total Revenue from Domestic (Actual)[7]	Actual Electric Operations Debt to Equity Ratio
1999/00	0%	-	2.2%	$0.00	$0.00	0.00%	2.20%	$0.0	66%	83:17
2000/01	0%	-	2.5%	$0.00	$0.00	0.00%	4.76%	$0.0	62%	80:20
2001/02[1]	-	-1.92% Nov 1/01	2.1%	($6.00)	($14.40)	-1.92%	6.95%	-$14.4	57%	78:22
2002/03	0%	-	2.3%	$0.00	$0.00	-1.92%	9.41%	-$14.4	65%	81:19
2003/04	0% Apr 1/03	-0.72% Apr 1/03	0.9%	($6.50)	($6.50)	-2.63%	10.40%	-$20.9	72%	87:13
2004/05	3% Apr 1/04	5% Aug 1/04	2.7%	$32.30	$45.90	2.24%	13.38%	$25.0	63%	85:15
2005/06	2.5% Apr 1/05	2.25% Apr 1/05	2.4%	$21.80	$21.80	4.54%	16.10%	$46.8	55%	81:19
2006/07	2.25% Feb 1/07	2.25% Mar 1/07	2.0%	$1.9 est	$23.10	6.90%	18.42%	$69.9	66%	80:20
2007/08	0% Apr 1/07	-	1.9%	$0.00	$0.00	6.90%	20.67%	$69.9	66%	73:27
2008/09	2.9% Apr 1/08	5.0% Jul 1/08	2.2%	$39.3 est	$52.40	12.24%	23.33%	$122.3	68%	77:23
2009/10[2]	3.9% Apr 1/09	2.86% Apr 1/09	0.6%	$32.80	$32.80	15.45%	24.07%	$155.1	75%	72:28
2010/11[3]	2.9% Apr 1/10	2.84% Apr 1/10	1.0%	$32.90	$32.90	18.73%	25.31%	$188.0	77%	72:28
2011/12	2.9% Apr 1/11	2.0% Apr 1/11	2.8%	$24.40	$24.40	21.10%	28.82%	$212.4	78%	74:26
2012/13	3.5% Apr 1/12	2.0% Apr 1/12	1.6%	$25.80	$25.80	23.53%	30.88%	$238.2	80%	75:25
2012/13	2.5% Sep 1/12	2.4% Sep 1/12	1.6%	$19.40	$31.00	26.49%	30.88%	$269.2	0%	75:25
2013/14	3.5% Apr 1/13	3.5% May 1/13	2.4%	$43.40	$47.60	30.92%	34.02%	$316.8	78%	77:23
2014/15	3.95% Apr 1/14	2.75% May 1/14	1.5%	$35.60	$38.70	34.52%	36.03%	$355.5	79%	83:17
2015/16	3.95% Apr 1/15	3.95% Aug 1/15	1.3%	$40.10	$57.40	39.83%	37.80%	$412.9	77%	84:16
2016/17	3.95% Apr 1/16	3.36% Aug 1/16	1.4%	$36.30	$52.30	44.53%	39.73%	$465.2	76%	85:15
2017/18	7.9% Aug 1/17	3.36% Aug 1/17	1.7%	$37.30	$52.40	49.39%	42.10%	$517.6	77%	85:15
2018/19	7.9% Apr 1/18	3.6% Jun 1/18	2.4%	$49.55	$58.23	54.76%	45.51%	$575.8	80%	87:13
2019/20[4]	3.5% Jun 1/19	2.3% Jun 1/19	2.3%	$32.90	$39.10	58.32%	48.86%	$614.9	78%	87:13
2020/21[5]	-	2.9% Dec 1/20	0.3%	$20.49	$49.96	62.91%	49.31%	$664.9	74%	86:14
2021/22	5% Jan 1/22	3.6% Jan 1/22	4.6%	$19.60	$63.64	68.78%	56.18%	$728.5	76%	87:13
2022/23	0%	-	3.3%	$0.00	$0.00	68.78%	61.33%	$728.5	59%	85:15
2023/24[6]	2.0% Sep 1/23	-	2.3%	$23.51	$36.65	72.15%	65.04%	$765.2	62%	83:17
2024/25[6]	2.0% Apr 1/24	-	2.1%	$37.51	$37.51	75.60%	68.51%	$802.7	67%	82:18

1. This was the result of Uniform Rates Legislation, not a request made by Manitoba Hydro.
2. The PUB approved interim rate increases of 2.9% for all customer classes, except Area & Roadway Lightning, resulting in a revenue increases of 2.86% in 2009/10.
3. The PUB approved interim rate increases of 2.9% for all customer classes, except Area & Roadway Lightning, resulting in a revenue increases of 2.84% in 2010/11.
4. The PUB approved a rate increase of 2.5% with select rate classes receiving lower or zero increases such that the overall revenue increase was 2.3% in 2019/20.
5. This was the result of a legislated increase in the *The Budget Implementation and Tax Statutes Amendment Act, 2020 (BITSA)*
6. Proposed
7. Total domestic revenues as a percentage of total revenues from energy sales

REFERENCE:

Tab 3, Section 3.5.1, pg. 36, MFR 18 and MFR 29.

PREAMBLE TO IR (IF ANY):

MH indicates that major capital projects are now in-service and that their carrying costs are increasing its revenue requirement.

MFR 18 provides an analysis of the cumulative rate increases and CPI since 1999/2000.

QUESTION:

a) Please confirm that for at least the last decade MH has been requesting rate increases not only to cover the increases costs in the respective test years – but also to smooth in rate increases that result from the anticipated revenue requirements of the major capital projects. If MH is unable to confirm this, then please explain why not with reference to the reasons for application from prior MH GRA's.

b) Please confirm that the MH rate increases between 2011/12 and 2021/22 are cumulatively 47.68% (68.78% - 21.10%) as compared to cumulative Manitoba CPI over that period of 27.36% (56.18% - 28.82%) (Source is MFR 18).

RESPONSE:

a) Confirmed.

b) The cumulative percentage rate increases between 2011/12 and 2021/22 and the cumulative Manitoba CPI over the same period are 42.16% and 24.63% respectively, as shown in the table below.

Year	% Rate Increase Requested	% Approved Final/Interim	MB CPI (fiscal)	Fiscal Yr Revenue Increases	Annual Increase in Revenue ($millions)	Cumulative % Increase	Cumulative MB CPI	Cumulative Additional Revenue from Rate Increases	% of Total Revenue from Domestic (Actual)[7]	Actual Electric Operations Debt to Equity Ratio
2011/12	2.9% Apr 1/11	2.0% Apr 1/11	2.8%	$24.40	$24.40	2.00%	2.80%	$24.4	78%	74:26
2012/13	3.5% Apr 1/12	2.0% Apr 1/12	1.6%	$25.80	$25.80	4.04%	4.44%	$50.2	80%	75:25
2012/13	2.5% Sep 1/12	2.4% Sep 1/12	1.6%	$19.40	$31.00	6.54%	4.44%	$81.2	0%	75:25
2013/14	3.5% Apr 1/13	3.5% May 1/13	2.4%	$43.40	$47.60	10.27%	6.95%	$128.8	78%	77:23
2014/15	3.95% Apr 1/14	2.75% May 1/14	1.5%	$35.60	$38.70	13.30%	8.56%	$167.5	79%	83:17
2015/16	3.95% Apr 1/15	3.95% Aug 1/15	1.3%	$40.10	$57.40	17.77%	9.97%	$224.9	77%	84:16
2016/17	3.95% Apr 1/16	3.36% Aug 1/16	1.4%	$36.30	$52.30	21.73%	11.51%	$277.2	76%	85:15
2017/18	7.9% Aug 1/17	3.36% Aug 1/17	1.7%	$37.30	$52.40	25.82%	13.40%	$329.6	77%	85:15
2018/19	7.9% Apr 1/18	3.6% Jun 1/18	2.4%	$49.55	$58.23	30.35%	16.12%	$387.8	80%	87:13
2019/20[4]	3.5% Jun 1/19	2.3% Jun 1/19	2.3%	$32.90	$39.10	33.35%	18.79%	$426.9	78%	87:13
2020/21[5]	-	2.9% Dec 1/20	0.3%	$20.49	$49.96	37.22%	19.15%	$476.9	74%	86:14
2021/22	5% Jan 1/22	3.6% Jan 1/22	4.6%	$19.60	$63.64	42.16%	24.63%	$540.5	76%	87:13

Figure 1: Electric Domestic Revenue Rate Increases

MANITOBA HYDRO
DOMESTIC REVENUE
($000)

	2004/05 Actual	2005/06 Actual	2006/07 Actual	2007/08 Actual	2008/09 Actual	2009/10 Actual	2010/11 Actual	2011/12 Actual	2012/13 Actual	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Test Year	2024/25 Test Year
Residential - Base Rates	$373 725	$360 362	$381 543	$397 742	$405 896	$401 304	$411 995	$390 436	$437 224	$457 637	$446 049	$419 044	$422 101	$447 287	$464 203	$449 828	$464 927	$483 561	$481 468	$475 490	$479 989
General Service - Base Rates	534 941	555 836	570 090	581 123	583 448	563 954	571 525	584 748	604 273	603 547	608 026	600 902	607 155	615 168	614 329	599 743	573 687	596 673	602 255	592 337	591 351
Base Rates	908 665	916 198	951 633	978 866	989 345	965 258	983 520	975 185	1 041 497	1 061 184	1 054 075	1 019 946	1 029 256	1 062 456	1 078 532	1 049 571	1 038 614	1 080 234	1 083 722	1 067 827	1 071 340
2004/05 Approved Rate Increase (5.0% Aug 1, 2004)	30 289	45 810	47 582	48 943	49 467	48 263	49 176	48 759	52 075	53 059	52 704	50 997	51 463	53 123	53 927	52 479	51 931	54 012	53 473	52 673	52 847
2005/06 Approved Rate Increase (2.25% Apr 1, 2005)	-	21 645	22 482	23 126	23 373	22 804	23 236	23 039	24 605	25 070	24 903	24 096	24 316	25 101	25 480	24 796	24 537	25 521	25 266	24 888	24 970
2006/07 Approved Rate Increase (2.25% Mar 1, 2007)	-		1 916	23 646	23 899	23 317	23 758	23 557	25 159	25 635	25 463	24 638	24 863	25 665	26 054	25 354	25 089	26 095	25 835	25 448	25 532
2008/09 Approved Rate Increase (5.0% July 1, 2008)	-	-	-	-	40 728	52 982	53 984	53 527	57 167	58 247	57 857	55 984	56 495	58 317	59 200	57 610	57 009	59 293	58 702	57 823	58 014
2009/10 Approved Rate Increase (2.9% Apr 1, 2009)	-	-	-	-	-	32 266	32 877	32 598	34 815	35 473	35 235	34 094	34 405	35 515	36 053	35 084	34 718	36 109	35 749	35 214	35 330
2010/11 Approved Rate Increase (2.9% Apr 1, 2010)	-	-	-	-	-	-	33 830	33 543	35 824	36 501	36 257	35 083	35 403	36 545	37 098	36 102	35 725	37 157	36 786	36 236	36 355
2011/12 Approved Rate Increase (2.0% Apr 1, 2011)	-	-	-	-	-	-	-	23 804	25 423	25 903	25 730	24 897	25 124	25 934	26 327	25 620	25 352	26 368	26 105	25 715	25 800
2012/13 Approved Rate Increase (2.0% Apr 1, 2012)	-	-	-	-	-	-	-	-	25 931	26 421	26 244	25 395	25 627	26 453	26 853	26 132	25 860	26 896	26 628	26 229	26 316
2012/13 Approved Rate Increase (2.4% Sept 1, 2012)	-	-	-	-	-	-	-	-	18 515	32 340	32 123	31 083	31 367	32 379	32 869	31 986	31 652	32 920	32 592	32 104	32 210
2013/14 Approved Rate Increase (3.5% May 1, 2013)	-	-	-	-	-	-	-	-	-	44 293	47 971	46 417	46 841	48 352	49 084	47 766	47 267	49 161	48 671	47 942	48 101
2014/15 Approved Rate Increase (2.75% May 1, 2014)	-	-	-	-	-	-	-	-	-		36 068	37 747	38 092	39 321	39 916	38 844	38 438	39 979	39 580	38 987	39 116
2015/16 Approved Rate Increase (3.95% Aug 1, 2015)	-	-	-	-	-	-	-	-	-	-	-	39 589	56 218	58 032	58 910	57 328	56 730	59 003	58 415	57 540	57 730
2016/17 Approved Rate Increase (3.36% Aug 1, 2016)	-	-	-	-	-	-	-	-	-	-	-		35 326	51 314	52 090	50 691	50 162	52 172	51 652	50 879	51 047
2017/18 Approved Rate Increase (3.36% Aug 1, 2017)	-	-	-	-	-	-	-	-	-	-	-	-	-	37 550	53 840	52 395	51 848	53 925	53 388	52 588	52 762
2018/19 Approved Rate Increase (3.6% Jun 1, 2018)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50 752	58 023	57 418	59 718	59 123	58 238	58 430
2019/20 Approved Rate Increase (2.5% Jun 1, 2019)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32 354	41 309	42 964	42 536	41 899	42 037
2020/21 Approved Rate Increase (2.9% Dec 1, 2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20 797	52 289	51 768	50 993	51 161
2021/22 Interim Rate Increase (3.6% Jan 1, 2022)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19 830	64 646	63 679	63 889
Interim & Approved Rate Increases	30 289	67 455	71 980	95 715	137 468	179 633	216 861	238 827	299 514	362 943	400 554	430 022	485 540	553 601	628 452	652 564	675 841	753 413	790 915	779 076	781 646
2010/11 (1% rate rollback)	-	-	-	-	-	-	-	(22 894)	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred Revenue from 1% rate rollback	-	-	-	-	-	-	-	(22 894)	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional Revenue (2.0% Sept 1, 2023)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23 514	36 772
Additional Revenue (2.0% Apr 1, 2024)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37 507
Additional General Consumers Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23 514	74 279
Total General Consumer Revenue Before BPIII Reserve Transfers	**$938 954**	**$983 653**	**$1 023 613**	**$1 074 581**	**$1 126 812**	**$1 144 891**	**$1 200 381**	**$1 191 118**	**$1 341 011**	**$1 424 127**	**$1 454 629**	**$1 449 968**	**$1 514 796**	**$1 616 056**	**$1 706 984**	**$1 702 135**	**$1 714 455**	**$1 833 647**	**$1 874 637**	**1 870 417**	**1 927 265**
Bipole III Reserve Account	-	-	-	-	-	-	-	-	-	(18 826)	(30 249)	(51 203)	(96 018)	(151 662)	-	-	-	-			-
Bipole III Reserve Account	-	-	-	-	-	-	-	-	-	(18 826)	(30 249)	(51 203)	(96 018)	(151 662)	-	-	-	-	-	-	-
Total General Consumer Revenue	**$938 954**	**$983 653**	**$1 023 613**	**$1 074 581**	**$1 126 812**	**$1 144 891**	**$1 200 381**	**$1 191 118**	**$1 341 011**	**$1 405 301**	**$1 424 380**	**$1 398 765**	**$1 418 778**	**$1 464 394**	**$1 706 984**	**$1 702 135**	**$1 714 455**	**$1 833 647**	**$1 874 637**	**$1 870 417**	**$1 927 265**

Figure 1 Electric Domestic Revenue Rate Increases

MANITOBA HYDRO
DOMESTIC REVENUE
($000)

	2004/05 Actual	2005/06 Actual	2006/07 Actual	2007/08 Actual	2008/09 Actual	2009/10 Actual	2010/11 Actual	2011/12 Actual	2012/13 Actual	2013/14 Actual
Residential - Base Rates	$ 373 725	$ 360 362	$ 381 543	$ 397 742	$405 896	$401 304	$411 995	$390 436	$437 224	$457 637
General Service - Base Rates	534 941	555 836	570 090	581 123	583 448	563 954	571 525	584 748	604 273	603 547
Base Rates	908 665	916 198	951 633	978 866	989 345	965 258	983 520	975 185	1 041 497	1 061 184
2004/05 Approved Rate Increase (5.0% August 1, 2004)	30 289	45 810	47 582	48 943	49 467	48 263	49 176	48 759	52 075	53 059
2005/06 Approved Rate Increase (2.25% April 1, 2005)	-	21 645	22 482	23 126	23 373	22 804	23 236	23 039	24 605	25 070
2006/07 Approved Rate Increase (2.25% March 1, 2007)	-		1 916	23 646	23 899	23 317	23 758	23 557	25 159	25 635
2008/09 Approved Rate Increase (5.0% July 1, 2008)	-	-	-	-	40 728	52 982	53 984	53 527	57 167	58 247
2009/10 Approved Rate Increase (2.9% April 1, 2009)	-	-	-	-	-	32 266	32 877	32 598	34 815	35 473
2010/11 Approved Rate Increase (2.9% April 1, 2010)	-	-	-	-	-	-	33 830	33 543	35 824	36 501
2011/12 Approved Rate Increase (2.0% April 1, 2011)	-	-	-	-	-	-	-	23 804	25 423	25 903
2012/13 Approved Rate Increase (2.0% April 1, 2012)	-	-	-	-	-	-	-	-	25 931	26 421
2012/13 Approved Rate Increase (2.4% September 1, 2012)	-	-	-	-	-	-	-	-	18 515	32 340
2013/14 Approved Rate Increase (3.5% May 1, 2013)	-	-	-	-	-	-	-	-	-	44 293
2014/15 Approved Rate Increase (2.75% May 1, 2014)	-	-	-	-	-	-	-	-	-	
2015/16 Approved Rate Increase (3.95% August 1, 2015)	-	-	-	-	-	-	-	-	-	-
2016/17 Approved Rate Increase (3.36% August 1, 2016)	-	-	-	-	-	-	-	-	-	-
2017/18 Approved Rate Increase (3.36% August 1, 2017)	-	-	-	-	-	-	-	-	-	-
2018/19 Approved Rate Increase (3.6% June 1, 2018)	-	-	-	-	-	-	-	-	-	-
2019/20 Approved Rate Increase (2.5% June 1, 2019)	-	-	-	-	-	-	-	-	-	-
2020/21 Approved Rate Increase (2.9% December 1, 2020)	-	-	-	-	-	-	-	-	-	-
2021/22 Interim Rate Increase (3.6% January 1, 2022)	-	-	-	-	-	-	-	-	-	-
Interim & Approved Rate Increases	30 289	67 455	71 980	95 715	137 468	179 633	216 861	238 827	299 514	362 943
2010/11 (1% rate rollback)	-	-	-	-	-	-	-	(22 894)	-	-
Deferred Revenue from 1% rate rollback	-	-	-	-	-	-	-	(22 894)	-	-
Additional General Consumers Revenue (3.5% September 1, 2023)	-	-	-	-	-	-	-	-	-	-
Additional General Consumers Revenue (3.5% April 1, 2024)	-	-	-	-	-	-	-	-	-	-
Additional General Consumers Revenue	-	-	-	-	-	-	-	-	-	-
Total General Consumer Revenue Before BPIII Reserve Transfers	**$938 954**	**$983 653**	**$1 023 613**	**$1 074 581**	**$1 126 812**	**$1 144 891**	**$1 200 381**	**$1 191 118**	**$1 341 011**	**$1 424 127**
Bipole III Reserve Account	-	-	-	-	-	-	-	-	-	(18 826)
Bipole III Reserve Account	-	-	-	-	-	-	-	-	-	(18 826)
Total General Consumer Revenue	**$938 954**	**$983 653**	**$1 023 613**	**$1 074 581**	**$1 126 812**	**$1 144 891**	**$1 200 381**	**$1 191 118**	**$1 341 011**	**$1 405 301**

	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Test Year	2024/25 Test Year
Residential - Base Rates	$446 049	$419 044	$422 101	$447 287	$464 203	$449 828	$464 927	$483 561	$481 468	$475 490	$479 989
General Service - Base Rates	608 026	600 902	607 155	615 168	614 329	599 743	573 687	596 673	602 255	592 337	591 351
Base Rates	1 054 075	1 019 946	1 029 256	1 062 456	1 078 532	1 049 571	1 038 614	1 080 234	1 083 722	1 067 827	1 071 340
2004/05 Approved Rate Increase (5.0% August 1, 2004)	52 704	50 997	51 463	53 123	53 927	52 479	51 931	54 012	53 473	52 673	52 847
2005/06 Approved Rate Increase (2.25% April 1, 2005)	24 903	24 096	24 316	25 101	25 480	24 796	24 537	25 521	25 266	24 888	24 970
2006/07 Approved Rate Increase (2.25% March 1, 2007)	25 463	24 638	24 863	25 665	26 054	25 354	25 089	26 095	25 835	25 448	25 532
2008/09 Approved Rate Increase (5.0% July 1, 2008)	57 857	55 984	56 495	58 317	59 200	57 610	57 009	59 293	58 702	57 823	58 014
2009/10 Approved Rate Increase (2.9% April 1, 2009)	35 235	34 094	34 405	35 515	36 053	35 084	34 718	36 109	35 749	35 214	35 330
2010/11 Approved Rate Increase (2.9% April 1, 2010)	36 257	35 083	35 403	36 545	37 098	36 102	35 725	37 157	36 786	36 236	36 355
2011/12 Approved Rate Increase (2.0% April 1, 2011)	25 730	24 897	25 124	25 934	26 327	25 620	25 352	26 368	26 105	25 715	25 800
2012/13 Approved Rate Increase (2.0% April 1, 2012)	26 244	25 395	25 627	26 453	26 853	26 132	25 860	26 896	26 628	26 229	26 316
2012/13 Approved Rate Increase (2.4% September 1, 2012)	32 123	31 083	31 367	32 379	32 869	31 986	31 652	32 920	32 592	32 104	32 210
2013/14 Approved Rate Increase (3.5% May 1, 2013)	47 971	46 417	46 841	48 352	49 084	47 766	47 267	49 161	48 671	47 942	48 101
2014/15 Approved Rate Increase (2.75% May 1, 2014)	36 068	37 747	38 092	39 321	39 916	38 844	38 438	39 979	39 580	38 987	39 116
2015/16 Approved Rate Increase (3.95% August 1, 2015)	-	39 589	56 218	58 032	58 910	57 328	56 730	59 003	58 415	57 540	57 730
2016/17 Approved Rate Increase (3.36% August 1, 2016)	-		35 326	51 314	52 090	50 691	50 162	52 172	51 652	50 879	51 047
2017/18 Approved Rate Increase (3.36% August 1, 2017)	-	-	-	37 550	53 840	52 395	51 848	53 925	53 388	52 588	52 762
2018/19 Approved Rate Increase (3.6% June 1, 2018)	-	-	-	-	50 752	58 023	57 418	59 718	59 123	58 238	58 430
2019/20 Approved Rate Increase (2.5% June 1, 2019)	-	-	-	-	-	32 354	41 309	42 964	42 536	41 899	42 037
2020/21 Approved Rate Increase (2.9% December 1, 2020)	-	-	-	-	-	-	20 797	52 289	51 768	50 993	51 161
2021/22 Interim Rate Increase (3.6% January 1, 2022)	-	-	-	-	-	-	-	19 830	64 646	63 679	63 889
Interim & Approved Rate Increases	400 554	430 022	485 540	553 601	628 452	652 564	675 841	753 413	790 915	779 076	781 646
2010/11 (1% rate rollback)	-	-	-	-	-	-	-	-	-	-	-
Deferred Revenue from 1% rate rollback	-	-	-	-	-	-	-	-	-	-	-
Additional General Consumers Revenue (3.5% September 1, 2023)	-	-	-	-	-	-	-	-	-	41 149	64 350
Additional General Consumers Revenue (3.5% April 1, 2024)	-	-	-	-	-	-	-	-	-	-	66 602
Additional General Consumers Revenue	-	-	-	-	-	-	-	-	-	41 149	130 953
Total General Consumer Revenue Before BPIII Reserve Transfers	**$1 454 629**	**$1 449 968**	**$1 514 796**	**$1 616 056**	**$1 706 984**	**$1 702 135**	**$1 714 455**	**$1 833 647**	**$1 874 637**	**1 888 052**	**1 983 939**
Bipole III Reserve Account	(30 249)	(51 203)	(96 018)	(151 662)	-	-	-	-			-
Bipole III Reserve Account	(30 249)	(51 203)	(96 018)	(151 662)	-	-	-	-	-	-	-
Total General Consumer Revenue	**$1 424 380**	**$1 398 765**	**$1 418 778**	**$1 464 394**	**$1 706 984**	**$1 702 135**	**$1 714 455**	**$1 833 647**	**$1 874 637**	**$1 888 052**	**$1 983 939**

2

Letter of Application

MANITOBA HYDRO

2023/24 & 2024/25 GENERAL RATE APPLICATION

LETTER OF APPLICATION

IN THE MATTER OF: *The Crown Corporations Governance & Accountability Act* (Manitoba); and,

IN THE MATTER OF: An Application by Manitoba Hydro for an Order of the Public Utilities Board Finalizing and Approving Increases to Electricity Rates

TO: The Executive Director of the
Public Utilities Board of Manitoba
Winnipeg, Manitoba

Manitoba Hydro hereby applies to the Public Utilities Board of Manitoba ("PUB") for an Order pursuant to *The Crown Corporations Governance & Accountability Act* for the following:

1. Final approval of Orders 137/21 and 140/21, which approved, on an interim basis, a 3.6% rate increase effective January 1, 2022;

2. Approval of rate schedules incorporating an overall increase in General Consumers Revenue of 2.0% effective September 1, 2023, sufficient to generate additional revenues of $24 million in 2023/24;

3. Approval of a further overall increase in General Consumers Revenue of 2.0% effective April 1, 2024, sufficient to generate additional revenues of $38 million in 2024/25;

4. Final approval of the Light Emitting Diode ("LED") rates for the Area and Roadway Lighting class approved on an interim basis in Order 150/20;

5. Final approval of all Surplus Energy Program ("SEP") and Curtailable Rate Program ("CRP") interim *ex parte* rate Orders as set out in Tab 9 – Appendix 9.1 – of this Application, as well as any additional SEP and CRP interim Orders issued subsequent to the filing of this Application and prior to the PUB's Order in this matter;

6. Endorsement of modifications to the Terms and Conditions of the SEP outlined in Tab 8 of this Application – to be filed with Phase 2 of the Application in December 2022;

7. Endorsement of the modifications to the Terms and Conditions of the CRP outlined in Tab 8 of this Application – to be filed with Phase 2 of the Application in December 2022;

8. Endorsement of changes to existing deferral accounts and the establishment and amortization of new regulatory deferral accounts, as discussed in Tab 4, Appendix 4.3 (Amended) of this Application and summarized as follows:

   a. The endorsement of the established Keeyask in-service deferral account and the approval of the amortization period;

   b. The establishment and amortization of a new regulatory deferral for SAP S/4HANA cloud computing arrangements (CCA);

   c. The determination of a depreciation methodology for rate setting purposes and establishment and amortization of related deferral accounts;

   d. The determination of an amortization period for the Major Capital Projects deferral account; and,

   e. The write off of the DSM Deferral debit and credit accounts.

On November 15, 2021, Manitoba Hydro filed its 2021/22 Interim Rate Application seeking approval of rate schedules incorporating an overall increase in General Consumers Revenue of 5% effective January 1, 2022. On December 24, 2021, the PUB varied the request and approved, in Order 137/21, a 3.6% increase. Later, on January 26, 2022, the PUB varied Directive 3 in Order 137/21 and Directive 2 of Order 140/21 such that the interim rate increase approved in those Orders will remain in effect only until November 30, 2022, unless Manitoba Hydro files a General Rate Application by November 15, 2022, to confirm the 2021/22 Interim Rate Increases and seek rates for future years if it so chooses.

On November 15, 2022, Manitoba Hydro filed its 2023/24 & 2024/25 General Rate Application, seeking approval of an overall General Revenue Increase of 3.5% effective September 1, 2023 and a further overall General Revenue Increase of 3.5% effective April 1, 2024.

On November 23, 2022, the Province of Manitoba announced that it would be reducing the Provincial Debt Guarantee and water rental fees paid by Manitoba Hydro by 50%, effective April 1, 2022. On November 29, 2022, Manitoba Hydro advised the PUB that this announcement would have a material impact on its finances and would allow the utility to amend its proposed rate increases from 3.5% in 2023/24 and 2024/25, to 2% in each of these years. Manitoba Hydro is hereby amending the proposed rate increases in its Application including amendments to certain tabs, appendices and Minimum Filing Requirements to reflect the reduced PGF and water rentals payments, proposed rate increases and long-term rate path.

Bill impacts of the 2% average revenue increase, effective September 1, 2023, will be less than $3 a month for the average residential customer without electric space heat and under $6 a month for those with electric space heat. The 2% average revenue increase effective April 1, 2024 will also result in bill impacts of less than $3 and $6 a month for average non-electric space heating and electric space heating customers respectively. Class specific rate increases will be provided with Phase 2 of the application and will consider results of Manitoba Hydro's Prospective Cost of Service Study for the year ending March 31, 2024.

<u>Organization of Manitoba Hydro's Application</u>

- Tab 2 provides details on how Manitoba Hydro is strategically adapting to the changing energy landscape, including details on its Strategy 2040 and Enterprise Plan;
- Tab 3 (Amended) provides the reasons for the proposed rate increases;
- Tab 4 (Amended) provides a long-term Financial Forecast Scenario for the electric segment and Manitoba Hydro's Debt Management Strategy and discussion on the importance of continuing to be viewed as self-supporting by credit rating agencies;
- Tab 5 provides details on load projections underpinning the financial forecast scenario, as well as current water condition and energy supply assumptions;
- Tab 6 provides details on drivers of Operating & Administrative expenses;
- Tab 7 provides an overview of Manitoba Hydro's current plans and priorities with respect to asset management, including current and future capital investment needs;

- Tab 8 will be provided as a part of Phase 2 of the Application to be filed in December 2022 and will include details on cost of service and rate design;
- Tab 9 outlines the interim Orders for which Manitoba Hydro is seeking final approval and provides responses to PUB directives; and
- Tab 10 provides responses to the Minimum Filing Requirements ("MFR").

Communication related to this Application should be addressed to Manitoba Hydro in the following fashion:

Manitoba Hydro

Attention: Brent Czarnecki
22nd Floor, 360 Portage Avenue
Winnipeg, Manitoba
R3C 0G8

Telephone No.	(204) 360-3257
Fax No.	(204) 360-6147
E-Mail:	baczarnecki@hydro.mb.ca

DATED at Winnipeg, Manitoba this November 15, 2022.

MANITOBA HYDRO

"ORIGINAL SIGNED
BY Brent A. Czarnecki"

Per: ____________________
Brent Czarnecki

Figure 1 Electric Operations Operating Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 828	2 877	2 922	2 972	2 970
Net Income before Net Movement in Reg. Deferral	565	368	224	38	59	41	42	69	110	191
Net Movement in Regulatory Deferral	190	106	77	118	114	62	57	50	4	(12)
Net Income	755	474	301	156	173	104	99	119	113	178
Net Income Attributable to:										
Manitoba Hydro	**751**	**469**	**295**	**149**	**166**	**97**	**92**	**111**	**105**	**169**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	474	301	156	173	104	99	119	113	178
Percent Increase	-	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	-	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 2 Electric Operations Balance Sheet – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28 814	29 416	30 089	30 739	31 593	32 345	33 112	33 929	34 789	35 693
Accumulated Depreciation	(3 525)	(4 083)	(4 638)	(5 186)	(5 773)	(6 409)	(7 044)	(7 706)	(8 390)	(9 096)
Net Plant in Service	25 288	25 333	25 451	25 553	25 820	25 935	26 068	26 223	26 399	26 597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2 222	1 513	1 630	1 688	1 550	1 636	1 744	1 599	1 701	1 892
Goodwill and Intangible Assets	1 034	1 006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	29 014	28 364	28 535	28 678	28 614	28 796	29 013	29 000	29 255	29 621
Regulatory Deferral Balance	1 389	1 426	1 503	1 572	1 637	1 700	1 757	1 807	1 811	1 798
	30 403	29 790	30 038	30 251	30 251	30 495	30 770	30 807	31 066	31 419
LIABILITIES AND EQUITY										
Long-Term Debt	22 408	21 912	21 747	21 494	21 186	21 078	21 987	21 440	21 968	22 750
Current and Other Liabilities	3 931	3 389	3 440	3 742	3 861	4 089	3 336	3 783	3 379	2 748
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1 004	1 038
Retained Earnings	3 575	4 044	4 339	4 488	4 654	4 751	4 843	4 953	5 058	5 227
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30 236	29 692	29 940	30 202	30 251	30 495	30 770	30 807	31 066	31 419
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30 403	29 790	30 038	30 251	30 251	30 495	30 770	30 807	31 066	31 419

Figure 3 Electric Operations Projected Indirect Cash Flow Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	755	474	301	156	173	104	99	119	113	178
Net Movement in Regulatory Deferral	(190)	(106)	(77)	(118)	(114)	(62)	(57)	(50)	(4)	12
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Adjustments for Non-Cash Items	39	13	13	12	11	10	6	2	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	(6)	82	41	43	45	46	47	48	49	50
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(946)	(962)	(978)	(979)	(950)
Interest Received	24	15	10	9	5	4	5	2	1	2
Cash Provided by Operating Activities	1 084	1 176	882	724	770	770	780	816	879	987
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	970	1 360	1 590	550	1 190	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) Investment Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	233	234	234	235
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(233)	(234)	(234)	(235)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	86	122	(131)	94	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(625)	48	0	(169)	53	74	(180)	75	166
Cash at Beginning of Year	1 047	933	308	357	357	188	241	315	135	210
Cash at End of Year	933	308	357	357	188	241	315	135	210	376

Figure 4 Electric Operations Projected Direct Cash Flow Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 174	3 039	2 907	2 772	2 822	2 853	2 899	2 971	3 060	3 139
Cash Paid to Suppliers and Employees	(1 049)	(1 044)	(1 099)	(1 116)	(1 121)	(1 141)	(1 162)	(1 178)	(1 203)	(1 203)
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(946)	(962)	(978)	(979)	(950)
Interest Received	24	15	10	9	5	4	5	2	1	2
Cash Provided by Operating Activities	1 084	1 176	882	724	770	770	780	816	879	987
FINANCING ACTIVITIES	21	(2)	(1)	(1)	(1)					
Proceeds from Long-Term Debt	657	350	750	920	970	1 360	1 590	550	1 190	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) External Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	233	234	234	235
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(233)	(234)	(234)	(235)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	86	122	(131)	94	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(625)	48	0	(169)	53	74	(180)	75	166
Cash at Beginning of Year	1 047	933	308	357	357	188	241	315	135	210
Cash at End of Year	933	308	357	357	188	241	315	135	210	376

Figure 5 Electric Operations Projected Operating Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	181	182	184	187	189	191	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 027	3 101	3 166	3 239	3 327	3 452	3 528	3 563	3 647	3 717
Net Income before Net Movement in Reg. Deferral	215	251	316	295	332	363	414	496	548	612
Net Movement in Regulatory Deferral	(15)	(21)	(26)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	200	230	289	262	295	322	374	457	526	589
Net Income Attributable to:										
Manitoba Hydro	**190**	**219**	**277**	**250**	**282**	**309**	**358**	**439**	**507**	**569**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	200	230	289	262	295	322	374	457	526	589
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

Figure 6 Electric Operations Projected Balance Sheet – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36 672	37 680	38 768	39 910	41 171	42 495	43 923	45 182	46 564	48 003
Accumulated Depreciation	(9 818)	(10 579)	(11 346)	(12 134)	(12 963)	(13 841)	(14 753)	(15 690)	(16 642)	(17 650)
Net Plant in Service	26 853	27 101	27 422	27 776	28 208	28 655	29 170	29 491	29 922	30 354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	2 134	2 654	2 772	2 575	2 571	2 502	2 467	2 466	2 367	2 528
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	30 095	30 841	31 258	31 497	32 154	32 411	32 735	33 315	33 517	33 923
Regulatory Deferral Balance	1 783	1 763	1 736	1 704	1 666	1 625	1 585	1 546	1 523	1 499
	31 879	32 604	32 994	33 200	33 820	34 036	34 320	34 860	35 040	35 422
LIABILITIES AND EQUITY										
Long-Term Debt	22 932	23 256	22 943	22 786	22 602	22 316	22 180	21 928	21 442	21 024
Current and Other Liabilities	2 762	2 870	3 144	3 063	3 304	3 465	3 408	3 551	3 675	3 872
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1 113	1 189	1 342	1 538	1 821	1 853	1 973	2 184	2 218	2 254
Retained Earnings	5 417	5 635	5 912	6 162	6 444	6 753	7 112	7 551	8 058	8 628
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31 879	32 604	32 994	33 200	33 820	34 036	34 320	34 860	35 040	35 422
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31 879	32 604	32 994	33 200	33 820	34 036	34 320	34 860	35 040	35 422

Figure 7 Electric Operations Projected Indirect Cash Flow Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	200	230	289	262	295	322	374	457	526	589
Net Movement in Regulatory Deferral	15	21	26	33	37	42	40	39	23	24
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(13)	(16)	(17)	(20)	(23)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(961)	(961)	(966)	(959)	(949)	(946)	(936)	(926)	(914)	(899)
Interest Received	6	6	8	7	5	5	4	8	7	7
Cash Provided by Operating Activities	1 033	1 096	1 185	1 182	1 243	1 308	1 399	1 508	1 596	1 706
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	370	(40)	(10)	150	160	200	170	0	200
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	241	240	238	238	236	234	232	228
Sinking Fund Investment Purchases	(236)	(237)	(241)	(240)	(238)	(238)	(236)	(234)	(232)	(228)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	388	(91)	(287)	(2)	(180)	(251)	(171)	(428)	(291)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	214	495	93	(222)	(30)	(94)	(61)	(24)	(122)	140
Cash at Beginning of Year	376	590	1 085	1 178	956	926	832	771	747	625
Cash at End of Year	590	1 085	1 178	956	926	832	771	747	625	765

Figure 8 Electric Operations Projected Direct Cash Flow Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Amended Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 219	3 327	3 456	3 505	3 627	3 780	3 905	4 019	4 152	4 285
Cash Paid to Suppliers and Employees	(1 231)	(1 276)	(1 313)	(1 372)	(1 440)	(1 531)	(1 574)	(1 593)	(1 649)	(1 687)
Interest Paid	(961)	(961)	(966)	(959)	(949)	(946)	(936)	(926)	(914)	(899)
Interest Received	6	6	8	7	5	5	4	8	7	7
Cash Provided by Operating Activities	1 033	1 096	1 185	1 182	1 243	1 308	1 399	1 508	1 596	1 706
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	370	(40)	(10)	150	160	200	170	0	200
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) External Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	241	240	238	238	236	234	232	228
Sinking Fund Investment Purchases	(236)	(237)	(241)	(240)	(238)	(238)	(236)	(234)	(232)	(228)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	388	(91)	(287)	(2)	(180)	(251)	(171)	(428)	(291)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	214	495	93	(222)	(30)	(94)	(61)	(24)	(122)	140
Cash at Beginning of Year	376	590	1 085	1 178	956	926	832	771	747	625
Cash at End of Year	590	1 085	1 178	956	926	832	771	747	625	765

Figure 9 Electric Operations Amended Financial Forecast Scenario – Key Financial Measures

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
Amended Financial Forecast Scenario

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Rate Increases	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%
Net Income/(Loss)	$751	$469	$295	$149	$166	$97	$92	$111	$105	$169	$190	$219	$277	$250	$282	$309	$358	$439	$507	$569
Net Income/(Loss) before Net Movement in Reg. Deferral	$565	$368	$224	$38	$59	$41	$42	$69	$110	$191	$215	$251	$316	$295	$332	$363	$414	$496	$548	$612
Retained Earnings	$3 575	$4 044	$4 339	$4 488	$4 654	$4 751	$4 843	$4 953	$5 058	$5 227	$5 417	$5 635	$5 912	$6 162	$6 444	$6 753	$7 112	$7 551	$8 058	$8 628
Total Equity	$4 030	$4 511	$4 883	$5 055	$5 255	$5 393	$5 523	$5 663	$5 797	$6 000	$6 264	$6 559	$6 990	$7 438	$8 004	$8 346	$8 825	$9 476	$10 018	$10 623
Net Debt	$22 963	$22 529	$22 341	$22 371	$22 322	$22 356	$22 401	$22 451	$22 471	$22 424	$22 372	$22 270	$22 090	$22 030	$22 063	$21 983	$21 798	$21 656	$21 355	$20 930
Change in Net Debt - Inc/(Dec)	($330)	($435)	($187)	$29	($48)	$33	$46	$49	$21	($47)	($52)	($102)	($180)	($60)	$33	($80)	($185)	($141)	($302)	($425)
Cash Provided by Operating Activities	$1 084	$1 176	$882	$724	$770	$770	$780	$816	$879	$987	$1 033	$1 096	$1 185	$1 182	$1 243	$1 308	$1 399	$1 508	$1 596	$1 706
Cash Used for Investing Activities	($774)	($711)	($708)	($741)	($725)	($803)	($827)	($865)	($898)	($937)	($977)	($989)	($1 001)	($1 117)	($1 271)	($1 223)	($1 209)	($1 361)	($1 290)	($1 276)
Cash Surplus/(Deficit)	$310	$465	$174	($17)	$45	($33)	($47)	($49)	($19)	$50	$56	$106	$184	$65	($28)	$86	$190	$147	$306	$430
Self Financing Ratio	140%	165%	125%	98%	106%	96%	94%	94%	98%	105%	106%	111%	118%	106%	98%	107%	116%	111%	124%	134%
Cash Flow to Net Debt	4.7%	5.2%	3.9%	3.2%	3.5%	3.4%	3.5%	3.6%	3.9%	4.4%	4.6%	4.9%	5.4%	5.4%	5.6%	6.0%	6.4%	7.0%	7.5%	8.2%
Net Finance Expense	$909	$900	$886	$906	$915	$927	$936	$946	$949	$923	$928	$929	$929	$915	$904	$900	$893	$876	$863	$853
Debt Ratio	85%	83%	82%	82%	81%	81%	80%	80%	79%	79%	78%	77%	76%	75%	73%	72%	71%	70%	68%	66%
Interest Paid	$1 064	$834	$935	$941	$936	$946	$962	$978	$979	$950	$961	$961	$966	$959	$949	$946	$936	$926	$914	$899
EBIT Interest Coverage Ratio	1.80	1.51	1.32	1.16	1.18	1.10	1.10	1.11	1.11	1.18	1.20	1.23	1.29	1.27	1.30	1.33	1.39	1.48	1.57	1.65
EBITDA Interest Coverage Ratio	2.48	2.21	2.06	1.92	1.95	1.89	1.90	1.95	1.99	2.12	2.17	2.24	2.33	2.36	2.44	2.53	2.64	2.79	2.92	3.07
Capital Coverage Ratio	2.26	2.23	1.61	1.20	1.21	1.08	1.06	1.06	1.08	1.16	1.16	1.21	1.29	1.27	1.32	1.37	1.43	1.52	1.59	1.66

Figure 1 Electric Operations Operating Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	41	131	201	274	352	433	519	611	711
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 070	2 976	2 873	2 957	3 025	3 114	3 227	3 361	3 489
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	1 023	1 022	1 012	1 036	1 055	1 067	1 078	1 089	1 093	1 060
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	150	149	142	137	138	139	139	140	139	139
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	161	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	8	8	8	8	8	8	8	4	1	1
	2 805	2 873	2 885	2 940	2 978	3 031	3 082	3 128	3 176	3 167
Net Income before Net Movement in Reg. Deferral	382	197	91	(67)	(21)	(5)	32	99	185	322
Net Movement in Regulatory Deferral	190	106	77	118	114	62	57	50	4	(12)
Net Income	571	303	168	51	93	57	89	149	189	309
Net Income Attributable to:										
Manitoba Hydro	**568**	**298**	**162**	**46**	**86**	**51**	**83**	**141**	**181**	**301**
Wuskwatim Investment Entity	4	4	6	6	7	6	6	7	8	9
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	4	4	6	6	7	6	6	7	8	9
	571	303	168	51	93	57	89	149	189	309
Percent Increase	-	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Cumulative Percent Increase	-	3.50%	7.12%	10.87%	14.75%	18.77%	22.93%	27.23%	31.68%	36.29%

Figure 2 Electric Operations Balance Sheet – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28 814	29 416	30 089	30 739	31 593	32 345	33 112	33 929	34 789	35 693
Accumulated Depreciation	(3 525)	(4 083)	(4 638)	(5 186)	(5 773)	(6 409)	(7 044)	(7 706)	(8 390)	(9 096)
Net Plant in Service	25 288	25 333	25 451	25 553	25 820	25 935	26 068	26 223	26 399	26 597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2 038	1 565	1 545	1 690	1 664	1 704	1 797	1 682	1 659	1 983
Goodwill and Intangible Assets	1 034	1 006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	28 830	28 415	28 450	28 680	28 729	28 864	29 066	29 083	29 213	29 712
Regulatory Deferral Balance	1 389	1 426	1 503	1 572	1 637	1 700	1 757	1 807	1 811	1 798
	30 219	29 841	29 953	30 252	30 366	30 563	30 823	30 890	31 023	31 510
LIABILITIES AND EQUITY										
Long-Term Debt	22 408	22 312	22 147	22 084	21 966	21 858	22 757	22 210	22 528	23 310
Current and Other Liabilities	3 930	3 394	3 441	3 743	3 865	4 092	3 343	3 789	3 394	2 764
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1 004	1 038
Retained Earnings	3 392	3 691	3 853	3 899	3 985	4 036	4 119	4 260	4 441	4 742
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30 053	29 744	29 855	30 204	30 366	30 563	30 823	30 890	31 023	31 510
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30 219	29 841	29 953	30 252	30 366	30 563	30 823	30 890	31 023	31 510

Figure 3 Electric Operations Projected Indirect Cash Flow Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	571	303	168	51	93	57	89	149	189	309
Net Movement in Regulatory Deferral	(190)	(106)	(77)	(118)	(114)	(62)	(57)	(50)	(4)	12
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	1 023	1 022	1 012	1 036	1 055	1 067	1 078	1 089	1 093	1 060
Adjustments for Non-Cash Items	40	14	14	13	13	11	7	3	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	37	39	41	43	45	46	47	48	49	50
Interest Paid	(1 065)	(1 067)	(1 066)	(1 072)	(1 078)	(1 093)	(1 103)	(1 125)	(1 129)	(1 089)
Interest Received	23	16	7	7	9	8	6	2	7	4
Cash Provided by Operating Activities	1 058	853	743	619	692	722	774	844	953	1 119
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	750	750	1 110	1 160	1 360	1 580	550	980	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) Investment Entities	20	(1)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	11
Contributions from Non-Controlling Interests	2	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	238	237	240	240	241	242	241	240
Sinking Fund Investment Purchases	(248)	(244)	(238)	(237)	(240)	(240)	(241)	(242)	(241)	(240)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)
Cash Provided by Financing Activities	(425)	(690)	(126)	208	(24)	86	111	(131)	(116)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(140)	(548)	(91)	86	(58)	5	58	(152)	(61)	298
Cash at Beginning of Year	1 047	907	359	269	355	297	302	359	208	147
Cash at End of Year	907	359	269	355	297	302	359	208	147	445

Figure 4 Electric Operations Projected Direct Cash Flow Statement – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 174	3 057	2 963	2 860	2 943	3 010	3 094	3 206	3 340	3 467
Cash Paid to Suppliers and Employees	(1 074)	(1 152)	(1 162)	(1 176)	(1 182)	(1 202)	(1 223)	(1 240)	(1 264)	(1 264)
Interest Paid	(1 065)	(1 067)	(1 066)	(1 072)	(1 078)	(1 093)	(1 103)	(1 125)	(1 129)	(1 089)
Interest Received	23	16	7	7	9	8	6	2	7	4
Cash Provided by Operating Activities	1 058	853	743	619	692	722	774	844	953	1 119
FINANCING ACTIVITIES	21	(2)	(1)	(1)	(1)					
Proceeds from Long-Term Debt	657	750	750	1 110	1 160	1 360	1 580	550	980	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) External Entities	20	(1)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	11
Contributions from Non-Controlling Interests	2	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	238	237	240	240	241	242	241	240
Sinking Fund Investment Purchases	(248)	(244)	(238)	(237)	(240)	(240)	(241)	(242)	(241)	(240)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)
Cash Provided by Financing Activities	(425)	(690)	(126)	208	(24)	86	111	(131)	(116)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(140)	(548)	(91)	86	(58)	5	58	(152)	(61)	298
Cash at Beginning of Year	1 047	907	359	269	355	297	302	359	208	147
Cash at End of Year	907	359	269	355	297	302	359	208	147	445

Figure 5 Electric Operations Projected Operating Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	**2032/33**	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	819	850	884	923	965	1 008	1 053	1 099	1 147	1 194
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 624	3 707	3 808	3 829	3 922	4 043	4 129	4 203	4 292	4 376
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	1 056	1 051	1 053	1 031	1 016	1 006	992	973	960	952
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	139	139	141	141	141	141	141	141	141	142
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	183	183	185	188	190	192	195	197	199
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	2	2	2	2	2	2	1	1	2	2
	3 217	3 286	3 353	3 418	3 502	3 621	3 690	3 722	3 805	3 877
Net Income before Net Movement in Reg. Deferral	408	421	455	412	421	422	439	481	487	499
Net Movement in Regulatory Deferral	(15)	(21)	(26)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	393	400	428	379	383	380	399	442	465	475
Net Income Attributable to:										
Manitoba Hydro	**383**	**389**	**416**	**367**	**371**	**368**	**384**	**425**	**448**	**457**
Wuskwatim Investment Entity	10	11	12	12	12	12	15	16	17	18
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	10	11	12	12	12	12	15	16	17	18
	393	400	428	379	383	380	399	442	465	475
Percent Increase	3.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Cumulative Percent Increase	41.06%	41.77%	42.47%	43.19%	43.90%	44.62%	45.34%	46.07%	46.80%	47.54%

Figure 6 Electric Operations Projected Balance Sheet – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36 672	37 680	38 768	39 910	41 171	42 495	43 923	45 182	46 564	48 003
Accumulated Depreciation	(9 818)	(10 579)	(11 346)	(12 134)	(12 963)	(13 841)	(14 753)	(15 690)	(16 642)	(17 650)
Net Plant in Service	26 853	27 101	27 422	27 776	28 208	28 655	29 170	29 491	29 922	30 354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	2 209	3 090	3 348	3 259	3 133	2 913	2 694	2 668	2 510	2 552
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	30 170	31 277	31 834	32 180	32 716	32 822	32 962	33 517	33 660	33 947
Regulatory Deferral Balance	1 783	1 763	1 736	1 704	1 666	1 625	1 585	1 546	1 523	1 499
	31 954	33 040	33 570	33 884	34 383	34 447	34 547	35 063	35 183	35 446
LIABILITIES AND EQUITY										
Long-Term Debt	23 282	23 796	23 483	23 316	22 922	22 426	22 080	21 818	21 332	20 904
Current and Other Liabilities	2 779	2 887	3 162	3 080	3 321	3 482	3 425	3 568	3 692	3 892
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1 113	1 189	1 342	1 538	1 821	1 853	1 973	2 184	2 218	2 254
Retained Earnings	5 125	5 514	5 931	6 298	6 669	7 037	7 422	7 847	8 294	8 752
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31 954	33 040	33 570	33 884	34 383	34 447	34 547	35 063	35 183	35 446
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31 954	33 040	33 570	33 884	34 383	34 447	34 547	35 063	35 183	35 446

Figure 7 Electric Operations Projected Indirect Cash Flow Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	393	400	428	379	383	380	399	442	465	475
Net Movement in Regulatory Deferral	15	21	26	33	37	42	40	39	23	24
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Net Finance Expense	1 056	1 051	1 053	1 031	1 016	1 006	992	973	960	952
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(12)	(15)	(17)	(20)	(22)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(1 093)	(1 087)	(1 098)	(1 087)	(1 075)	(1 064)	(1 042)	(1 026)	(1 013)	(997)
Interest Received	7	7	13	16	16	13	6	7	5	5
Cash Provided by Operating Activities	1 224	1 264	1 321	1 296	1 328	1 363	1 421	1 490	1 531	1 591
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	(50)	560	(40)	(20)	(60)	(50)	(10)	160	0	190
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	11	11	12	11	15	15	15
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	242	241	247	246	244	242	238	234	232	228
Sinking Fund Investment Purchases	(242)	(241)	(247)	(246)	(244)	(242)	(238)	(234)	(232)	(228)
Other	(10)	(12)	(12)	(13)	(13)	(14)	(13)	(17)	(18)	(18)
Cash Provided by Financing Activities	(51)	578	(91)	(297)	(212)	(390)	(461)	(181)	(428)	(301)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	196	853	230	(118)	(155)	(249)	(249)	(53)	(186)	15
Cash at Beginning of Year	445	642	1 494	1 724	1 606	1 451	1 202	953	900	714
Cash at End of Year	642	1 494	1 724	1 606	1 451	1 202	953	900	714	729

Figure 8 Electric Operations Projected Direct Cash Flow Statement – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Financial Forecast Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 601	3 682	3 781	3 800	3 889	4 007	4 092	4 163	4 250	4 332
Cash Paid to Suppliers and Employees	(1 292)	(1 338)	(1 376)	(1 434)	(1 502)	(1 593)	(1 636)	(1 654)	(1 710)	(1 749)
Interest Paid	(1 093)	(1 087)	(1 098)	(1 087)	(1 075)	(1 064)	(1 042)	(1 026)	(1 013)	(997)
Interest Received	7	7	13	16	16	13	6	7	5	5
Cash Provided by Operating Activities	1 224	1 264	1 321	1 296	1 328	1 363	1 421	1 490	1 531	1 591
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	(50)	560	(40)	(20)	(60)	(50)	(10)	160	0	190
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) External Entities	9	10	11	11	11	12	11	15	15	15
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	242	241	247	246	244	242	238	234	232	228
Sinking Fund Investment Purchases	(242)	(241)	(247)	(246)	(244)	(242)	(238)	(234)	(232)	(228)
Other	(10)	(12)	(12)	(13)	(13)	(14)	(13)	(17)	(18)	(18)
Cash Provided by Financing Activities	(51)	578	(91)	(297)	(212)	(390)	(461)	(181)	(428)	(301)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	196	853	230	(118)	(155)	(249)	(249)	(53)	(186)	15
Cash at Beginning of Year	445	642	1 494	1 724	1 606	1 451	1 202	953	900	714
Cash at End of Year	642	1 494	1 724	1 606	1 451	1 202	953	900	714	729

Figure 9 Electric Operations Financial Forecast Scenario – Key Financial Measures

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
Financial Forecast Scenario

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Cumulative Rate Increases	0.00%	3.50%	7.12%	10.87%	14.75%	18.77%	22.93%	27.23%	31.68%	36.29%	41.06%	41.77%	42.47%	43.19%	43.90%	44.62%	45.34%	46.07%	46.80%	47.54%
Net Income/(Loss)	$568	$298	$162	$46	$86	$51	$83	$141	$181	$301	$383	$389	$416	$367	$371	$368	$384	$425	$448	$457
Net Income/(Loss) before Net Movement in Reg. Deferral	$382	$197	$91	($67)	($21)	($5)	$32	$99	$185	$322	$408	$421	$455	$412	$421	$422	$439	$481	$487	$499
Retained Earnings	$3 392	$3 691	$3 853	$3 899	$3 985	$4 036	$4 119	$4 260	$4 441	$4 742	$5 125	$5 514	$5 931	$6 298	$6 669	$7 037	$7 422	$7 847	$8 294	$8 752
Total Equity	$3 846	$4 156	$4 394	$4 463	$4 582	$4 674	$4 793	$4 971	$5 180	$5 515	$5 973	$6 438	$7 009	$7 575	$8 230	$8 631	$9 135	$9 772	$10 254	$10 747
Net Debt	$22 989	$22 878	$22 829	$22 963	$22 993	$23 075	$23 127	$23 148	$23 094	$22 915	$22 671	$22 401	$22 084	$21 910	$21 858	$21 723	$21 516	$21 393	$21 156	$20 845
Change in Net Debt - Inc/(Dec)	($304)	($111)	($48)	$134	$30	$81	$52	$21	($54)	($179)	($244)	($270)	($316)	($174)	($52)	($135)	($207)	($123)	($237)	($311)
Cash Provided by Operating Activities	$1 058	$853	$743	$619	$692	$722	$774	$844	$953	$1 119	$1 224	$1 264	$1 321	$1 296	$1 328	$1 363	$1 421	$1 490	$1 531	$1 591
Cash Used for Investing Activities	($774)	($711)	($708)	($741)	($725)	($803)	($827)	($865)	($898)	($937)	($977)	($989)	($1 001)	($1 117)	($1 271)	($1 223)	($1 209)	($1 361)	($1 290)	($1 276)
Cash Surplus/(Deficit)	$285	$142	$35	($122)	($33)	($81)	($54)	($21)	$56	$182	$247	$274	$321	$179	$57	$140	$212	$129	$242	$316
Self Financing Ratio	137%	120%	105%	84%	95%	90%	94%	98%	106%	119%	125%	128%	132%	116%	104%	111%	118%	109%	119%	125%
Cash Flow to Net Debt	4.6%	3.7%	3.3%	2.7%	3.0%	3.1%	3.3%	3.6%	4.1%	4.9%	5.4%	5.6%	6.0%	5.9%	6.1%	6.3%	6.6%	7.0%	7.2%	7.6%
Net Finance Expense	$1 023	$1 022	$1 012	$1 036	$1 055	$1 067	$1 078	$1 089	$1 093	$1 060	$1 056	$1 051	$1 053	$1 031	$1 016	$1 006	$992	$973	$960	$952
Debt Ratio	86%	85%	84%	84%	83%	83%	83%	82%	82%	81%	79%	78%	76%	74%	73%	72%	70%	69%	67%	66%
Interest Paid	$1 065	$1 067	$1 066	$1 072	$1 078	$1 093	$1 103	$1 125	$1 129	$1 089	$1 093	$1 087	$1 098	$1 087	$1 075	$1 064	$1 042	$1 026	$1 013	$997
EBIT Interest Coverage Ratio	1.54	1.28	1.16	1.04	1.08	1.05	1.08	1.13	1.16	1.28	1.36	1.36	1.39	1.35	1.35	1.36	1.38	1.42	1.45	1.47
EBITDA Interest Coverage Ratio	2.14	1.90	1.81	1.70	1.75	1.74	1.78	1.85	1.93	2.10	2.21	2.26	2.31	2.32	2.37	2.43	2.51	2.60	2.67	2.75
Capital Coverage Ratio	2.20	1.62	1.37	1.03	1.09	1.02	1.05	1.09	1.17	1.31	1.37	1.40	1.44	1.39	1.41	1.42	1.45	1.51	1.52	1.55

MFR 62 (Amended)

Prior references
PUB MFR 44, 2017/18 & 2018/19 GRA

Payments to Government

A schedule of actual and forecast payments made to the Province and Municipalities for five historical years and for the 20-year forecast period.

Please see Figure 1 below for all actual payments to municipalities and the Province for 2017/18 through 2021/22, and forecasted payments from 2022/23 through 2041/42 based on the Amended Financial Forecast Scenario.

Figure 1: Payments to the Province and Municipalities ($ in millions)

Payments to the Province and Municipalities
($ in millions)

Fiscal Year Ending March 31	Water Rentals [1]	Provincial Guarantee Fee [2]	Sinking Fund Admin. Fee	Capital Taxes	Payroll Taxes	Municipal GILT and Business Taxes	Gross Electricity Operations Revenue	Extraprovincial Revenue	Total Provincial Payments [3]	Provincial Payments as a Percentage of Gross Revenue
2018	$116	$154	$0	$92	$12	$25	$1 931	$437	$374	19%
2019	103	182	0	100	11	27	2 163	430	396	18%
2020	116	202	0	109	11	26	2 196	468	438	20%
2021	117	218	0	113	11	25	2 353	611	459	19%
2022	90	224	0	118	11	25	2 450	585	443	18%
2023	111	232	0	124	11	24	3 264	1 283	478	15%
2024	23	0	0	124	11	25	3 072	1 153	158	5%
2025	63	111	0	125	12	26	2 920	964	310	11%
2026	60	112	0	126	12	27	2 834	780	310	11%
2027	61	112	0	126	12	28	2 885	778	311	11%
2028	61	112	0	127	12	28	2 869	754	313	11%
2029	61	112	0	128	13	29	2 919	740	314	11%
2030	61	113	0	128	13	29	2 991	748	315	11%
2031	61	113	0	129	13	30	3 081	768	316	10%
2032	61	113	0	130	13	31	3 161	766	318	10%
2033	61	113	0	131	14	31	3 242	754	318	10%
2034	61	113	0	134	14	32	3 352	762	322	10%
2035	61	115	0	134	14	32	3 482	783	325	9%
2036	61	114	0	135	15	33	3 534	707	325	9%
2037	61	114	0	137	15	34	3 660	693	326	9%
2038	61	114	0	138	15	35	3 816	705	328	9%
2039	61	113	0	139	16	35	3 942	682	329	8%
2040	61	112	0	141	16	36	4 059	643	330	8%
2041	61	111	0	142	16	37	4 195	615	330	8%
2042	61	110	0	143	17	37	4 329	588	329	8%

(1) Water Rental payments to the Province of Manitoba were paid at the $20.32 rate prior to the announcement by the Province on Nov 23, 2022. Excess amounts paid in the 2022/23 fiscal year were recorded as pre-payments. Refer to Tab 4 (Amended) for a schedule of Water Rental accruals and payments.
(2) The PGF fee was paid to to Province of Manitoba in April 2022 at the 1% rate. Per the announcement by the Province on Nov 23, 2022, excess amounts of the PGF paid to the Province in the 2022/23 fiscal year were recorded as pre-payments. Refer to Tab 4 (Amended) for a schedule of PGF accruals and payments.
(3) Municipal GILT & Business Tax not included.

MFR 62

Prior references
PUB MFR 44, 2017/18 & 2018/19 GRA

Payments to Government

A schedule of actual and forecast payments made to the Province and Municipalities for five historical years and for the 20-year forecast period.

Please see Figure 1 below for all actual payments to municipalities and the Province for 2017/18 through 2021/22, and forecasted payments from 2022/23 through 2041/42.

Figure 1 Payments to the Province and Municipalities ($ in millions)

Payments to the Province and Municipalities
($ in millions)

Fiscal Year Ending March 31	Water Rentals	Provincial Guarantee Fee	Sinking Fund Admin. Fee	Capital Taxes	Payroll Taxes	Municipal GILT and Business Taxes	Gross Electricity Operations Revenue	Extraprovincial Revenue	Total Provincial Payments*	Provincial Payments as a Percentage of Gross Revenue
2018	$116	$154	$0	$92	$12	$25	$1 931	$437	$374	19%
2019	103	182	0	100	11	27	2 163	430	396	18%
2020	116	202	0	109	11	26	2 196	468	438	20%
2021	117	218	0	113	11	25	2 353	611	459	19%
2022	90	224	0	118	11	25	2 450	585	443	18%
2023	137	232	0	123	11	24	3 264	1 283	503	15%
2024	132	229	0	124	11	25	3 090	1 153	496	16%
2025	126	228	0	124	12	26	2 976	964	489	16%
2026	121	228	0	125	12	27	2 922	780	486	17%
2027	122	229	0	126	12	28	3 006	778	488	16%
2028	123	229	0	126	12	28	3 025	754	491	16%
2029	123	230	0	128	13	29	3 114	740	493	16%
2030	123	232	0	128	13	29	3 227	748	496	15%
2031	122	232	0	128	13	30	3 361	768	496	15%
2032	122	231	0	130	13	31	3 489	766	497	14%
2033	121	230	0	130	14	31	3 624	754	495	14%
2034	121	228	0	136	14	32	3 707	762	499	13%
2035	123	235	0	135	14	32	3 808	783	507	13%
2036	122	229	0	136	15	33	3 829	707	502	13%
2037	122	228	0	138	15	34	3 922	693	503	13%
2038	122	227	0	139	15	35	4 043	705	503	12%
2039	122	225	0	140	16	35	4 129	682	503	12%
2040	121	223	0	142	16	36	4 203	643	502	12%
2041	121	221	0	142	16	37	4 292	615	500	12%
2042	122	218	0	143	17	37	4 376	588	499	11%

*Municipal GILT & Business Tax Not Included

REFERENCE:

Tab 10 MFR 28, MFR 62

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please provide a comparison of the payments to Government based on the original application and the December 9th update.
b) Quantify all payments to the Government included in the forecast, by year, for Keeyask (by component) and for Bipole III (by component) and also as a percentage of MH's gross revenues and compare with the change in payments based on December 9th update.

RESPONSE:

a) Please see the table below (same format as MFR 62) that shows the differences in the payments to Government between the December 9th update and the original application.

Payments to the Province and Municipalities
Dec 9, 2022 Amended Financial Forcast Scenario less Nov 15, 2022 Financial Forecast Scenario
($ in millions)

Fiscal Year Ending March 31	Water Rentals (1)	Provincial Guarantee Fee (2)	Sinking Fund Admin. Fee	Capital Taxes	Payroll Taxes	Municipal GILT and Business Taxes	Gross Electricity Operations Revenue	Extraprovincial Revenue	Total Provincial Payments (3)	Provincial Payments as a Percentage of Gross Revenue
2018	$0	$0	$0	$0	$0	$0	$0	$0	$0	0%
2019	0	0	0	0	0	0	0	0	0	0%
2020	0	0	0	0	0	0	0	0	0	0%
2021	0	0	0	0	0	0	0	0	0	0%
2022	0	0	0	0	0	0	0	0	0	0%
2023	(26)	0	0	1	0	0	0	0	(25)	-1%
2024	(109)	(229)	0	0	0	0	(18)	0	(338)	-11%
2025	(63)	(117)	0	0	0	0	(57)	0	(179)	-6%
2026	(60)	(116)	0	0	0	0	(88)	0	(176)	-6%
2027	(61)	(117)	0	0	0	0	(121)	0	(178)	-5%
2028	(61)	(117)	0	0	0	0	(157)	0	(178)	-5%
2029	(61)	(117)	0	0	0	0	(195)	0	(179)	-5%
2030	(61)	(119)	0	0	0	0	(236)	0	(181)	-5%
2031	(61)	(119)	0	0	0	0	(280)	0	(179)	-4%
2032	(61)	(118)	0	0	0	0	(329)	0	(179)	-4%
2033	(61)	(117)	0	0	0	0	(382)	0	(177)	-4%
2034	(61)	(115)	0	(1)	0	0	(355)	0	(177)	-4%
2035	(61)	(119)	0	(1)	0	0	(326)	0	(182)	-4%
2036	(61)	(115)	0	(1)	0	0	(295)	0	(177)	-4%
2037	(61)	(114)	0	(1)	0	0	(263)	0	(176)	-4%
2038	(61)	(113)	0	(1)	0	0	(227)	0	(175)	-4%
2039	(61)	(112)	0	(1)	0	0	(187)	0	(174)	-4%
2040	(61)	(111)	0	(1)	0	0	(144)	0	(172)	-4%
2041	(61)	(110)	0	(1)	0	0	(98)	0	(171)	-4%
2042	(61)	(108)	0	(1)	0	0	(47)	0	(170)	-4%

(1) Water Rental payments to the Province of Manitoba were paid at the $20.32 rate prior to the announcement by the Province on Nov 23, 2022. Excess amounts paid in the 2022/23 fiscal year were recorded as pre-payments. Refer to Tab 4 (Amended) for a schedule of Water Rental accruals and payments.
(2) The PGF fee was paid to to Province of Manitoba in April 2022 at the 1% rate. Per the announcement by the Province on Nov 23, 2022, excess amounts of the PGF paid to the Province in the 2022/23 fiscal year were recorded as pre-payments. Refer to Tab 4 (Amended) for a schedule of PGF accruals and payments.
(3) Municipal GILT & Business Tax not included.

b) As indicated in MFR 26 (Amended), finance expense and capital taxes are not readily estimated on an incremental cost basis for individual projects. Manitoba Hydro issues debt based on the consolidated cash requirements of the Corporation and does not assign specific debt issues on a project-by-project basis. For the purposes of calculating the revenue requirement impacts in MFR 26, net book value has been utilized to derive estimations of finance expense and capital tax attributable to a specific project, but this methodology has several limitations as outlined in MFR 26 (Amended). As such, a fulsome quantification of all payments to the Government for Keeyask and Bipole III is not feasible.

A proxy for changes in finance expense, capital tax and water rentals for Keeyask and Bipole III from the November 15, 2022 Financial Forecast Scenario to the Amended Financial Forecast Scenario is quantified in the tables below by comparing Figures 1 and

4 from MFR 26 the same figures in MFR 26 (Amended). Provincial guarantee fee payments are a component of the finance expense outlined in the revenue requirement, which is calculated based on applying Manitoba Hydro's average cost of debt to the asset's net book value. Manitoba Hydro's average cost of debt has been adjusted in MFR 26 (Amended) to reflect the 50-basis point reduction in the provincial guarantee fee announced by the Province of Manitoba on November 23, 2022.

KEEYASK Revenue Requirement (in millions of dollars)												
	Amended Financial Forecast Scenario				November 15, 2022 Financial Forecast Scenario				Change			
	Finance Expense	Water Rentals	Capital Tax	Total	Finance Expense	Water Rentals	Capital Tax	Total	Finance Expense	Water Rentals	Capital Tax	Total
2022/23	$288	$8	$39	$335	$325	$16	$39	$380	($37)	($8)	$0	($45)
2023/24	309	13	39	361	345	21	39	405	(36)	(8)	0	(44)
2024/25	317	12	39	368	352	20	39	410	(35)	(8)	0	(43)
2025/26	316	10	38	365	352	18	38	408	(36)	(8)	0	(43)
2026/27	313	11	38	362	349	18	38	406	(36)	(8)	0	(44)
2027/28	309	10	37	357	346	18	37	401	(37)	(8)	0	(44)
2028/29	306	10	37	353	339	18	37	394	(33)	(8)	0	(41)
2029/30	302	11	36	349	335	18	36	390	(33)	(8)	0	(41)
2030/31	298	11	36	344	332	18	36	386	(34)	(8)	0	(42)
2031/32	293	11	35	340	327	18	35	381	(34)	(8)	0	(41)
2032/33	289	11	35	335	321	18	35	375	(32)	(8)	0	(40)
2033/34	276	11	34	321	302	18	34	355	(26)	(8)	0	(34)
2034/35	267	11	34	312	291	19	34	343	(24)	(8)	0	(32)
2035/36	262	11	34	307	286	18	33	338	(24)	(8)	0	(32)
2036/37	256	11	33	300	280	18	33	331	(23)	(8)	0	(31)
2037/38	251	11	33	294	273	18	33	324	(23)	(8)	0	(30)
2038/39	245	11	32	287	267	18	32	317	(22)	(8)	0	(30)
2039/40	239	11	32	281	260	18	32	310	(22)	(8)	0	(29)
2040/41	233	10	31	275	254	18	31	303	(21)	(8)	0	(29)
2041/42	227	11	31	268	248	18	31	297	(21)	(8)	0	(28)

BIPOLE III, RIEL STATION & KEEWATINOHK CONVERTER STATIONS												
	Amended Financial Forecast Scenario				November 15, 2022 Financial Forecast Scenario				Change			
	Finance Expense	Water Rentals	Capital Tax	Total	Finance Expense	Water Rentals	Capital Tax	Total	Finance Expense	Water Rentals	Capital Tax	Total
2022/23	$174		$22	$196	$196		$22	$218	($22)	$0	$0	($22)
2023/24	171		22	193	193		22	214	(22)	0	0	(22)
2024/25	173		21	194	194		21	215	(21)	0	0	(21)
2025/26	169		21	190	190		21	211	(21)	0	0	(21)
2026/27	165		20	186	186		20	206	(20)	0	0	(20)
2027/28	162		20	182	182		20	202	(20)	0	0	(20)
2028/29	158		20	178	178		20	197	(19)	0	0	(19)
2029/30	155		19	174	174		19	193	(19)	0	0	(19)
2030/31	151		19	170	170		19	188	(19)	0	0	(19)
2031/32	148		18	166	166		18	184	(18)	0	0	(18)
2032/33	144		18	162	162		18	179	(18)	0	0	(18)
2033/34	140		17	158	158		17	175	(17)	0	0	(17)
2034/35	137		17	154	154		17	170	(17)	0	0	(17)
2035/36	133		16	150	150		16	166	(16)	0	0	(16)
2036/37	130		16	146	145		16	161	(16)	0	0	(16)
2037/38	126		16	142	141		16	157	(15)	0	0	(15)
2038/39	122		15	138	137		15	153	(15)	0	0	(15)
2039/40	119		15	134	133		15	148	(15)	0	0	(15)
2040/41	115		14	129	129		14	144	(14)	0	0	(14)
2041/42	112		14	125	125		14	139	(14)	0	0	(14)

3

1. Sensitivity Analysis Key Financial Measures

Tab 4 Appendix 4.4 (Amended) provides a summary of key financial measures for the sensitivity analysis described in Section 4.4 of Tab 4.

The following key financial measures are provided in the tables below:

- Debt Ratio
- Retained Earnings
- Net Income/(Loss)
- Net Debt
- Cash Surplus/(Deficiency)
- Self-financing ratio
- Cash Flow to Net Debt
- EBITDA Interest Coverage Ratio
- EBIT Interest Coverage Ratio
- Capital Coverage Ratio

Incremental Increase/(Decrease) from Financial Forecast Scenario **Debt Ratio (%)** **Fiscal Year Ending March 31**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**85%**	**83%**	**82%**	**82%**	**81%**	**81%**	**80%**	**80%**	**79%**	**79%**	**78%**	**77%**	**76%**	**75%**	**73%**	**72%**	**71%**	**70%**	**68%**	**66%**
5 Year Drought beginning in 2025/26	0%	0%	0%	1%	3%	4%	5%	6%	6%	7%	7%	7%	7%	8%	8%	8%	8%	8%	9%	9%
7 Year Drought beginning in 2025/26	0%	0%	0%	1%	1%	2%	3%	6%	8%	9%	9%	9%	9%	10%	10%	10%	11%	11%	11%	12%
Above Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	0%	-1%	-1%	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-4%	-4%	-4%	-5%	-5%	-5%	-5%
Below Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%
High Electricity Price Forecast Sensitivity	0%	0%	-1%	-1%	-2%	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-7%	-8%	-9%	-10%	-12%	-12%	-14%	-15%
Low Electricity Price Forecast Sensitivity	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%	4%	4%	5%	5%	6%	6%	7%	7%	8%	9%
High Interest Rate Sensitivity	0%	0%	0%	0%	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%	4%	4%	5%	5%	6%	6%
Low Interest Rate Sensitivity	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-3%	-3%	-3%	-4%	-4%	-4%	-5%
Business Operations Capex increase by 10% per year	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	2%	2%	2%	3%	3%	3%	4%	4%	5%
Business Operations Capex decrease by 10% per year	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%
2% Rate Path with Government Fees Unchanged	1%	1%	2%	3%	4%	4%	5%	6%	7%	8%	9%	10%	11%	12%	12%	14%	15%	16%	17%	18%
0% Rate Increase in 2023/24	0%	0%	0%	0%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
0% Rate Increases in 2023/24 & 2024/25	0%	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%	4%	4%	5%	5%	6%	6%	7%	8%	8%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0%	0%	1%	1%	1%	2%	2%	3%	3%	4%	5%	5%	6%	7%	7%	8%	9%	10%	11%	12%

Debt Ratio (%) **Fiscal Year Ending March 31**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**85%**	**83%**	**82%**	**82%**	**81%**	**81%**	**80%**	**80%**	**79%**	**79%**	**78%**	**77%**	**76%**	**75%**	**73%**	**72%**	**71%**	**70%**	**68%**	**66%**
5 Year Drought beginning in 2025/26	85%	83%	82%	83%	84%	85%	85%	86%	86%	85%	85%	84%	83%	82%	81%	80%	79%	78%	77%	75%
7 Year Drought beginning in 2025/26	85%	83%	82%	82%	82%	83%	84%	86%	87%	87%	87%	86%	85%	84%	83%	83%	82%	81%	79%	78%
Above Average Water Flows (2025/26 to 2034/35)	85%	83%	82%	81%	80%	79%	79%	78%	77%	76%	75%	74%	72%	71%	69%	68%	67%	65%	63%	61%
Below Average Water Flows (2025/26 to 2034/35)	85%	83%	82%	82%	82%	82%	82%	81%	81%	81%	81%	80%	79%	78%	77%	76%	75%	74%	72%	71%
High Electricity Price Forecast Sensitivity	85%	83%	81%	80%	79%	78%	77%	76%	75%	74%	72%	71%	69%	66%	64%	62%	60%	57%	54%	52%
Low Electricity Price Forecast Sensitivity	85%	84%	83%	82%	82%	82%	82%	82%	82%	82%	82%	81%	80%	80%	79%	79%	78%	77%	76%	75%
High Interest Rate Sensitivity	85%	83%	82%	82%	81%	81%	81%	81%	81%	80%	80%	80%	79%	78%	77%	77%	76%	75%	74%	73%
Low Interest Rate Sensitivity	85%	83%	82%	81%	81%	80%	80%	79%	78%	78%	76%	75%	74%	72%	70%	69%	68%	66%	64%	62%
Business Operations Capex increase by 10% per year	85%	83%	82%	82%	81%	81%	81%	81%	80%	80%	79%	79%	78%	77%	76%	75%	75%	73%	72%	71%
Business Operations Capex decrease by 10% per year	85%	83%	82%	81%	81%	80%	80%	79%	79%	78%	77%	76%	74%	72%	71%	69%	68%	66%	63%	61%
2% Rate Path with Government Fees Unchanged	86%	85%	84%	84%	84%	85%	85%	86%	86%	87%	87%	87%	87%	86%	86%	86%	86%	85%	85%	84%
0% Rate Increase in 2023/24	85%	83%	82%	82%	81%	81%	81%	81%	81%	80%	80%	79%	78%	77%	76%	75%	75%	73%	72%	71%
0% Rate Increases in 2023/24 & 2024/25	85%	83%	82%	82%	82%	82%	82%	82%	82%	82%	81%	81%	80%	79%	79%	78%	78%	77%	76%	75%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	85%	84%	83%	83%	82%	83%	83%	83%	83%	83%	83%	83%	82%	81%	81%	81%	80%	79%	79%	78%

Incremental Increase/(Decrease) from Financial Forecast Scenario Retained Earnings (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 3 575**	**$ 4 044**	**$ 4 339**	**$ 4 488**	**$ 4 654**	**$ 4 751**	**$ 4 843**	**$ 4 953**	**$ 5 058**	**$ 5 227**	**$ 5 417**	**$ 5 635**	**$ 5 912**	**$ 6 162**	**$ 6 444**	**$ 6 753**	**$ 7 112**	**$ 7 551**	**$ 8 058**	**$ 8 628**
5 Year Drought beginning in 2025/26	0	0	0	(370)	(844)	(1 117)	(1 417)	(1 712)	(1 787)	(1 864)	(1 946)	(2 030)	(2 118)	(2 209)	(2 307)	(2 407)	(2 513)	(2 623)	(2 737)	(2 858)
7 Year Drought beginning in 2025/26	0	0	0	(239)	(359)	(542)	(961)	(1 689)	(2 144)	(2 419)	(2 524)	(2 634)	(2 749)	(2 869)	(2 995)	(3 127)	(3 265)	(3 408)	(3 557)	(3 714)
Above Average Water Flows (2025/26 to 2034/35)	0	0	0	99	199	304	416	531	652	779	912	1 051	1 194	1 243	1 294	1 350	1 410	1 472	1 535	1 602
Below Average Water Flows (2025/26 to 2034/35)	0	0	0	(83)	(171)	(263)	(357)	(456)	(561)	(668)	(781)	(899)	(1 022)	(1 067)	(1 114)	(1 162)	(1 214)	(1 267)	(1 323)	(1 381)
High Electricity Price Forecast Sensitivity	0	126	219	346	500	653	827	1 011	1 210	1 420	1 640	1 869	2 125	2 431	2 774	3 134	3 492	3 842	4 228	4 606
Low Electricity Price Forecast Sensitivity	0	(97)	(154)	(230)	(320)	(426)	(533)	(651)	(775)	(903)	(1 030)	(1 166)	(1 317)	(1 495)	(1 685)	(1 890)	(2 099)	(2 299)	(2 523)	(2 752)
High Interest Rate Sensitivity	0	2	(7)	(21)	(52)	(100)	(165)	(250)	(346)	(462)	(584)	(710)	(839)	(977)	(1 124)	(1 279)	(1 446)	(1 624)	(1 814)	(2 014)
Low Interest Rate Sensitivity	0	1	10	26	53	94	150	221	298	391	491	591	691	793	899	1 009	1 128	1 256	1 387	1 522
Business Operations Capex increase by 10% per year	0	(1)	(6)	(16)	(31)	(52)	(79)	(114)	(155)	(203)	(259)	(324)	(397)	(480)	(574)	(680)	(796)	(922)	(1 060)	(1 210)
Business Operations Capex decrease by 10% per year	0	1	6	15	30	49	75	107	147	195	253	319	392	472	560	658	768	890	1 022	1 164
2% Rate Path with Government Fees Unchanged	(183)	(371)	(563)	(760)	(969)	(1 188)	(1 417)	(1 658)	(1 914)	(2 180)	(2 457)	(2 751)	(3 068)	(3 395)	(3 741)	(4 104)	(4 484)	(4 881)	(5 294)	(5 726)
0% Rate Increase in 2023/24	0	(24)	(64)	(105)	(150)	(198)	(249)	(304)	(363)	(426)	(492)	(564)	(642)	(725)	(815)	(912)	(1 016)	(1 127)	(1 246)	(1 374)
0% Rate Increases in 2023/24 & 2024/25	0	(24)	(101)	(183)	(270)	(364)	(463)	(571)	(685)	(806)	(936)	(1 076)	(1 225)	(1 386)	(1 562)	(1 751)	(1 954)	(2 171)	(2 404)	(2 654)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0	(65)	(172)	(286)	(408)	(540)	(679)	(828)	(988)	(1 158)	(1 340)	(1 536)	(1 744)	(1 970)	(2 215)	(2 478)	(2 762)	(3 064)	(3 389)	(3 737)

Retained Earnings (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 3 575**	**$ 4 044**	**$ 4 339**	**$ 4 488**	**$ 4 654**	**$ 4 751**	**$ 4 843**	**$ 4 953**	**$ 5 058**	**$ 5 227**	**$ 5 417**	**$ 5 635**	**$ 5 912**	**$ 6 162**	**$ 6 444**	**$ 6 753**	**$ 7 112**	**$ 7 551**	**$ 8 058**	**$ 8 628**
5 Year Drought beginning in 2025/26	3 575	4 044	4 339	4 118	3 810	3 634	3 425	3 242	3 272	3 363	3 471	3 606	3 794	3 952	4 137	4 346	4 599	4 928	5 321	5 770
7 Year Drought beginning in 2025/26	3 575	4 044	4 339	4 249	4 295	4 209	3 882	3 265	2 914	2 809	2 893	3 001	3 163	3 293	3 449	3 626	3 846	4 143	4 501	4 914
Above Average Water Flows (2025/26 to 2034/35)	3 575	4 044	4 339	4 587	4 853	5 055	5 258	5 485	5 710	6 006	6 329	6 686	7 106	7 405	7 739	8 103	8 522	9 023	9 593	10 230
Below Average Water Flows (2025/26 to 2034/35)	3 575	4 044	4 339	4 405	4 483	4 488	4 486	4 497	4 498	4 559	4 636	4 737	4 890	5 095	5 330	5 591	5 898	6 284	6 735	7 247
High Electricity Price Forecast Sensitivity	3 575	4 170	4 558	4 834	5 154	5 404	5 670	5 964	6 268	6 647	7 057	7 504	8 037	8 593	9 218	9 887	10 603	11 393	12 287	13 234
Low Electricity Price Forecast Sensitivity	3 575	3 947	4 185	4 258	4 335	4 325	4 310	4 302	4 283	4 324	4 387	4 470	4 595	4 667	4 759	4 864	5 013	5 252	5 536	5 875
High Interest Rate Sensitivity	3 575	4 046	4 332	4 467	4 602	4 651	4 678	4 703	4 712	4 765	4 832	4 926	5 073	5 185	5 320	5 474	5 666	5 927	6 244	6 614
Low Interest Rate Sensitivity	3 575	4 045	4 349	4 514	4 707	4 845	4 993	5 174	5 356	5 619	5 908	6 227	6 603	6 955	7 343	7 762	8 240	8 807	9 446	10 150
Business Operations Capex increase by 10% per year	3 575	4 044	4 333	4 472	4 623	4 698	4 764	4 839	4 903	5 024	5 158	5 312	5 515	5 682	5 870	6 074	6 316	6 629	6 999	7 418
Business Operations Capex decrease by 10% per year	3 575	4 045	4 345	4 504	4 684	4 799	4 918	5 060	5 205	5 423	5 670	5 954	6 304	6 634	7 004	7 411	7 879	8 441	9 080	9 791
2% Rate Path with Government Fees Unchanged	3 392	3 673	3 777	3 729	3 685	3 563	3 426	3 295	3 145	3 047	2 960	2 884	2 844	2 766	2 703	2 649	2 628	2 670	2 765	2 902
0% Rate Increase in 2023/24	3 575	4 021	4 275	4 383	4 504	4 553	4 594	4 649	4 695	4 802	4 925	5 071	5 270	5 437	5 629	5 841	6 096	6 424	6 812	7 253
0% Rate Increases in 2023/24 & 2024/25	3 575	4 021	4 238	4 306	4 384	4 387	4 379	4 383	4 374	4 421	4 481	4 560	4 687	4 776	4 882	5 002	5 157	5 380	5 654	5 974
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	3 575	3 980	4 167	4 202	4 246	4 211	4 164	4 125	4 070	4 070	4 076	4 100	4 168	4 192	4 229	4 275	4 350	4 487	4 670	4 891

Incremental Increase/(Decrease) from Financial Forecast Scenario Net Income (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**	**$ 190**	**$ 219**	**$ 277**	**$ 250**	**$ 282**	**$ 309**	**$ 358**	**$ 439**	**$ 507**	**$ 569**
5 Year Drought beginning in 2025/26	0	0	0	(370)	(474)	(273)	(300)	(294)	(75)	(78)	(81)	(84)	(88)	(92)	(97)	(100)	(106)	(110)	(114)	(120)
7 Year Drought beginning in 2025/26	0	0	0	(239)	(120)	(183)	(419)	(728)	(455)	(275)	(105)	(110)	(115)	(120)	(126)	(132)	(138)	(142)	(149)	(156)
Above Average Water Flows (2025/26 to 2034/35)	0	0	0	99	100	105	111	115	121	127	133	139	143	50	51	56	60	62	64	67
Below Average Water Flows (2025/26 to 2034/35)	0	0	0	(83)	(88)	(92)	(95)	(99)	(104)	(108)	(112)	(118)	(124)	(44)	(47)	(49)	(52)	(53)	(56)	(58)
High Electricity Price Forecast Sensitivity	0	126	93	127	154	153	174	184	199	210	221	228	256	307	343	360	358	350	387	378
Low Electricity Price Forecast Sensitivity	0	(97)	(57)	(76)	(89)	(107)	(107)	(118)	(124)	(128)	(126)	(136)	(151)	(178)	(190)	(205)	(209)	(200)	(224)	(230)
High Interest Rate Sensitivity	0	2	(9)	(14)	(31)	(48)	(65)	(85)	(96)	(116)	(122)	(125)	(130)	(138)	(147)	(155)	(167)	(178)	(190)	(200)
Low Interest Rate Sensitivity	0	1	9	16	28	41	57	70	77	94	99	100	100	102	105	110	119	128	131	135
Business Operations Capex increase by 10% per year	0	(1)	(5)	(10)	(15)	(21)	(27)	(35)	(41)	(48)	(56)	(65)	(73)	(83)	(95)	(105)	(116)	(126)	(138)	(150)
Business Operations Capex decrease by 10% per year	0	1	5	10	14	19	26	32	40	48	58	66	73	80	88	98	110	123	132	142
2% Rate Path with Government Fees Unchanged	(183)	(189)	(191)	(197)	(209)	(219)	(229)	(242)	(255)	(266)	(277)	(294)	(317)	(328)	(346)	(363)	(380)	(396)	(413)	(432)
0% Rate Increase in 2023/24	0	(24)	(40)	(41)	(45)	(48)	(51)	(56)	(59)	(63)	(66)	(72)	(77)	(83)	(90)	(97)	(104)	(111)	(120)	(128)
0% Rate Increases in 2023/24 & 2024/25	0	(24)	(77)	(82)	(87)	(94)	(100)	(107)	(114)	(121)	(130)	(140)	(149)	(161)	(176)	(189)	(203)	(217)	(233)	(250)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0	(65)	(108)	(114)	(122)	(131)	(139)	(149)	(160)	(170)	(183)	(195)	(208)	(226)	(245)	(263)	(284)	(303)	(325)	(348)

Net Income (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**	**$ 190**	**$ 219**	**$ 277**	**$ 250**	**$ 282**	**$ 309**	**$ 358**	**$ 439**	**$ 507**	**$ 569**
5 Year Drought beginning in 2025/26	751	469	295	(221)	(308)	(176)	(209)	(184)	30	91	108	134	189	158	185	209	253	329	393	449
7 Year Drought beginning in 2025/26	751	469	295	(90)	46	(86)	(327)	(617)	(350)	(106)	84	108	162	130	156	177	220	297	358	413
Above Average Water Flows (2025/26 to 2034/35)	751	469	295	248	266	202	203	226	226	296	323	357	419	299	333	365	418	501	571	636
Below Average Water Flows (2025/26 to 2034/35)	751	469	295	66	78	5	(3)	11	1	61	77	101	153	205	235	261	307	386	451	512
High Electricity Price Forecast Sensitivity	751	595	387	277	320	250	266	295	304	379	410	447	533	557	625	669	716	789	894	947
Low Electricity Price Forecast Sensitivity	751	372	238	73	76	(10)	(15)	(7)	(19)	41	63	82	126	72	92	104	149	239	284	340
High Interest Rate Sensitivity	751	471	286	135	135	49	27	26	9	53	67	93	147	112	135	154	191	261	318	369
Low Interest Rate Sensitivity	751	470	304	165	193	137	148	181	182	263	289	319	377	352	387	420	478	567	638	704
Business Operations Capex increase by 10% per year	751	469	289	139	151	76	65	76	64	121	133	154	204	167	188	204	242	313	369	419
Business Operations Capex decrease by 10% per year	751	470	300	159	180	116	118	143	145	217	247	285	350	330	370	407	469	562	639	711
2% Rate Path with Government Fees Unchanged	568	281	104	(48)	(44)	(122)	(137)	(131)	(150)	(97)	(87)	(76)	(40)	(78)	(63)	(54)	(22)	43	94	137
0% Rate Increase in 2023/24	751	446	255	108	120	49	41	55	46	106	123	147	199	167	192	212	254	329	388	441
0% Rate Increases in 2023/24 & 2024/25	751	446	218	67	78	3	(8)	3	(9)	48	59	79	127	89	106	120	155	222	275	319
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	751	405	187	35	44	(34)	(47)	(39)	(55)	(1)	7	23	68	24	37	46	75	137	183	221

Incremental Increase/(Decrease) from Financial Forecast Scenario Net Debt (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$22 963**	**$22 529**	**$22 341**	**$22 371**	**$22 322**	**$22 356**	**$22 401**	**$22 451**	**$22 471**	**$22 424**	**$22 372**	**$22 270**	**$22 090**	**$22 030**	**$22 063**	**$21 983**	**$21 798**	**$21 656**	**$21 355**	**$20 930**
5 Year Drought beginning in 2025/26	0	0	0	370	844	1 119	1 425	1 718	1 794	1 872	1 950	2 034	2 121	2 213	2 311	2 411	2 515	2 626	2 741	2 861
7 Year Drought beginning in 2025/26	0	0	0	238	357	541	961	1 686	2 138	2 410	2 512	2 622	2 736	2 856	2 982	3 111	3 249	3 395	3 544	3 701
Above Average Water Flows (2025/26 to 2034/35)	0	0	0	(95)	(194)	(296)	(402)	(517)	(636)	(763)	(896)	(1 035)	(1 178)	(1 227)	(1 279)	(1 334)	(1 394)	(1 456)	(1 519)	(1 586)
Below Average Water Flows (2025/26 to 2034/35)	0	0	0	83	172	266	366	465	568	675	785	902	1 025	1 070	1 117	1 166	1 217	1 274	1 330	1 387
High Electricity Price Forecast Sensitivity	0	(127)	(219)	(348)	(505)	(661)	(837)	(1 024)	(1 224)	(1 438)	(1 668)	(1 902)	(2 165)	(2 480)	(2 832)	(3 201)	(3 569)	(3 927)	(4 325)	(4 715)
Low Electricity Price Forecast Sensitivity	0	96	155	235	322	435	546	667	793	921	1 041	1 177	1 330	1 512	1 706	1 916	2 125	2 333	2 562	2 798
High Interest Rate Sensitivity	0	(3)	2	14	41	89	150	232	325	434	551	673	802	938	1 084	1 237	1 399	1 577	1 761	1 961
Low Interest Rate Sensitivity	0	1	(6)	(18)	(42)	(78)	(126)	(195)	(270)	(364)	(463)	(563)	(662)	(764)	(868)	(978)	(1 096)	(1 220)	(1 350)	(1 485)
Business Operations Capex increase by 10% per year	0	54	113	183	257	345	440	539	648	762	885	1 018	1 158	1 303	1 462	1 627	1 803	1 990	2 184	2 391
Business Operations Capex decrease by 10% per year	0	(54)	(112)	(177)	(250)	(332)	(422)	(520)	(626)	(746)	(874)	(1 009)	(1 149)	(1 295)	(1 447)	(1 608)	(1 780)	(1 960)	(2 150)	(2 349)
2% Rate Path with Government Fees Unchanged	26	367	563	758	967	1 187	1 413	1 655	1 907	2 173	2 448	2 740	3 057	3 388	3 734	4 095	4 473	4 873	5 287	5 722
0% Rate Increase in 2023/24	0	24	64	107	154	203	257	311	371	434	500	572	649	730	821	918	1 019	1 133	1 250	1 378
0% Rate Increases in 2023/24 & 2024/25	0	24	101	185	272	368	471	576	690	808	935	1 074	1 224	1 383	1 559	1 745	1 946	2 164	2 397	2 644
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0	65	171	285	408	540	679	826	985	1 155	1 334	1 529	1 737	1 958	2 203	2 466	2 744	3 047	3 371	3 716

Net Debt (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$22 963**	**$22 529**	**$22 341**	**$22 371**	**$22 322**	**$22 356**	**$22 401**	**$22 451**	**$22 471**	**$22 424**	**$22 372**	**$22 270**	**$22 090**	**$22 030**	**$22 063**	**$21 983**	**$21 798**	**$21 656**	**$21 355**	**$20 930**
5 Year Drought beginning in 2025/26	22 963	22 529	22 341	22 741	23 167	23 475	23 827	24 168	24 266	24 296	24 322	24 304	24 212	24 244	24 374	24 394	24 312	24 283	24 095	23 790
7 Year Drought beginning in 2025/26	22 963	22 529	22 341	22 608	22 680	22 897	23 362	24 137	24 609	24 834	24 884	24 892	24 827	24 886	25 045	25 094	25 047	25 051	24 899	24 631
Above Average Water Flows (2025/26 to 2034/35)	22 963	22 529	22 341	22 276	22 129	22 060	22 000	21 934	21 835	21 661	21 476	21 235	20 913	20 803	20 785	20 649	20 404	20 201	19 835	19 344
Below Average Water Flows (2025/26 to 2034/35)	22 963	22 529	22 341	22 454	22 495	22 621	22 767	22 915	23 039	23 099	23 157	23 172	23 116	23 100	23 180	23 149	23 015	22 930	22 684	22 317
High Electricity Price Forecast Sensitivity	22 963	22 401	22 122	22 022	21 818	21 695	21 565	21 427	21 247	20 986	20 704	20 368	19 925	19 550	19 231	18 782	18 228	17 729	17 029	16 214
Low Electricity Price Forecast Sensitivity	22 963	22 624	22 497	22 606	22 644	22 790	22 948	23 118	23 264	23 345	23 413	23 447	23 421	23 542	23 770	23 899	23 923	23 990	23 917	23 728
High Interest Rate Sensitivity	22 963	22 525	22 343	22 384	22 363	22 445	22 551	22 683	22 796	22 857	22 923	22 943	22 892	22 968	23 147	23 220	23 197	23 233	23 116	22 890
Low Interest Rate Sensitivity	22 963	22 529	22 336	22 353	22 280	22 278	22 276	22 256	22 201	22 059	21 909	21 707	21 428	21 266	21 195	21 005	20 702	20 436	20 004	19 444
Business Operations Capex increase by 10% per year	22 963	22 583	22 455	22 554	22 579	22 701	22 841	22 990	23 119	23 185	23 257	23 288	23 248	23 333	23 525	23 611	23 601	23 647	23 538	23 320
Business Operations Capex decrease by 10% per year	22 963	22 474	22 230	22 193	22 072	22 023	21 980	21 931	21 845	21 677	21 498	21 261	20 941	20 735	20 616	20 375	20 017	19 696	19 205	18 581
2% Rate Path with Government Fees Unchanged	22 989	22 895	22 904	23 128	23 290	23 542	23 815	24 106	24 378	24 597	24 820	25 010	25 147	25 418	25 797	26 078	26 271	26 529	26 642	26 651
0% Rate Increase in 2023/24	22 963	22 552	22 405	22 478	22 476	22 558	22 658	22 761	22 842	22 858	22 872	22 842	22 740	22 760	22 884	22 901	22 817	22 789	22 604	22 307
0% Rate Increases in 2023/24 & 2024/25	22 963	22 552	22 442	22 555	22 594	22 724	22 872	23 027	23 161	23 232	23 307	23 344	23 314	23 413	23 622	23 728	23 744	23 820	23 752	23 574
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	22 963	22 593	22 512	22 655	22 731	22 895	23 080	23 277	23 456	23 578	23 706	23 799	23 827	23 988	24 266	24 449	24 542	24 703	24 726	24 646

Incremental Increase/(Decrease) from Financial Forecast Scenario Cash Surplus/(Deficiency) (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 310**	**$ 465**	**$ 174**	**$ (17)**	**$ 45**	**$ (33)**	**$ (47)**	**$ (49)**	**$ (19)**	**$ 50**	**$ 56**	**$ 106**	**$ 184**	**$ 65**	**$ (28)**	**$ 86**	**$ 190**	**$ 147**	**$ 306**	**$ 430**
5 Year Drought beginning in 2025/26	0	0	0	(370)	(474)	(275)	(306)	(292)	(77)	(78)	(78)	(84)	(88)	(92)	(97)	(100)	(104)	(112)	(114)	(120)
7 Year Drought beginning in 2025/26	0	0	0	(238)	(120)	(184)	(419)	(726)	(452)	(272)	(102)	(110)	(115)	(120)	(126)	(129)	(138)	(146)	(149)	(156)
Above Average Water Flows (2025/26 to 2034/35)	0	0	0	95	98	102	106	115	119	127	133	139	143	50	51	56	60	62	64	67
Below Average Water Flows (2025/26 to 2034/35)	0	0	0	(83)	(89)	(93)	(100)	(99)	(103)	(108)	(109)	(117)	(124)	(44)	(47)	(49)	(52)	(56)	(56)	(58)
High Electricity Price Forecast Sensitivity	0	127	92	129	156	156	176	187	203	216	231	235	264	316	353	371	370	359	400	392
Low Electricity Price Forecast Sensitivity	0	(96)	(60)	(80)	(87)	(112)	(112)	(121)	(126)	(128)	(121)	(138)	(155)	(182)	(195)	(210)	(210)	(209)	(230)	(236)
High Interest Rate Sensitivity	0	4	(5)	(12)	(27)	(48)	(61)	(82)	(92)	(109)	(116)	(123)	(128)	(136)	(146)	(153)	(162)	(178)	(185)	(200)
Low Interest Rate Sensitivity	0	(1)	6	12	23	36	47	69	75	94	99	100	99	102	104	109	118	124	130	135
Business Operations Capex increase by 10% per year	0	(54)	(59)	(70)	(74)	(88)	(95)	(99)	(109)	(114)	(123)	(133)	(140)	(145)	(159)	(165)	(176)	(187)	(193)	(207)
Business Operations Capex decrease by 10% per year	0	54	57	66	73	82	89	98	106	121	128	135	140	146	152	161	172	179	190	199
2% Rate Path with Government Fees Unchanged	(26)	(341)	(196)	(195)	(210)	(219)	(227)	(242)	(251)	(266)	(276)	(292)	(317)	(331)	(346)	(360)	(379)	(399)	(415)	(435)
0% Rate Increase in 2023/24	0	(24)	(40)	(43)	(47)	(49)	(54)	(54)	(61)	(63)	(66)	(71)	(77)	(81)	(90)	(97)	(101)	(114)	(116)	(128)
0% Rate Increases in 2023/24 & 2024/25	0	(24)	(77)	(84)	(87)	(96)	(103)	(105)	(114)	(118)	(127)	(139)	(149)	(159)	(176)	(186)	(201)	(218)	(233)	(247)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0	(65)	(106)	(114)	(124)	(131)	(139)	(147)	(159)	(170)	(179)	(195)	(208)	(221)	(245)	(263)	(278)	(303)	(325)	(345)

Cash Surplus/Deficiency (in millions of $) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**$ 310**	**$ 465**	**$ 174**	**$ (17)**	**$ 45**	**$ (33)**	**$ (47)**	**$ (49)**	**$ (19)**	**$ 50**	**$ 56**	**$ 106**	**$ 184**	**$ 65**	**$ (28)**	**$ 86**	**$ 190**	**$ 147**	**$ 306**	**$ 430**
5 Year Drought beginning in 2025/26	310	465	174	(388)	(429)	(308)	(353)	(342)	(96)	(27)	(22)	23	96	(27)	(125)	(15)	87	36	192	310
7 Year Drought beginning in 2025/26	310	465	174	(255)	(75)	(217)	(466)	(775)	(471)	(221)	(46)	(3)	70	(55)	(154)	(44)	52	2	157	274
Above Average Water Flows (2025/26 to 2034/35)	310	465	174	78	143	69	59	66	100	177	190	245	327	115	23	141	250	209	370	497
Below Average Water Flows (2025/26 to 2034/35)	310	465	174	(100)	(45)	(126)	(147)	(149)	(122)	(58)	(53)	(11)	61	21	(75)	37	139	91	250	373
High Electricity Price Forecast Sensitivity	310	593	266	112	201	123	129	138	184	266	287	341	449	381	325	456	560	507	706	822
Low Electricity Price Forecast Sensitivity	310	370	114	(97)	(42)	(145)	(159)	(170)	(145)	(78)	(65)	(32)	29	(117)	(223)	(125)	(20)	(61)	77	194
High Interest Rate Sensitivity	310	469	169	(29)	18	(81)	(108)	(132)	(111)	(59)	(60)	(17)	56	(71)	(173)	(67)	28	(30)	122	230
Low Interest Rate Sensitivity	310	464	180	(5)	68	3	0	19	56	144	155	206	284	167	77	195	309	271	437	565
Business Operations Capex increase by 10% per year	310	411	115	(87)	(29)	(121)	(142)	(149)	(128)	(64)	(67)	(27)	44	(80)	(187)	(80)	15	(40)	113	223
Business Operations Capex decrease by 10% per year	310	520	231	48	118	49	42	49	87	171	184	241	325	211	124	247	362	327	497	629
2% Rate Path with Government Fees Unchanged	285	125	(22)	(212)	(165)	(252)	(274)	(292)	(270)	(216)	(220)	(186)	(133)	(266)	(374)	(275)	(188)	(252)	(108)	(4)
0% Rate Increase in 2023/24	310	442	134	(61)	(2)	(82)	(101)	(103)	(80)	(13)	(10)	35	107	(16)	(118)	(12)	89	33	190	302
0% Rate Increases in 2023/24 & 2024/25	310	442	97	(101)	(43)	(129)	(150)	(155)	(133)	(68)	(71)	(33)	35	(94)	(204)	(101)	(11)	(71)	74	184
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	310	401	68	(131)	(79)	(164)	(186)	(197)	(178)	(120)	(123)	(88)	(24)	(156)	(273)	(177)	(88)	(155)	(18)	85

Incremental Increase/(Decrease) from Financial Forecast Self-Financing Ratio Fiscal Year Ending March 31	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**140%**	**165%**	**125%**	**98%**	**106%**	**96%**	**94%**	**94%**	**98%**	**105%**	**106%**	**111%**	**118%**	**106%**	**98%**	**107%**	**116%**	**111%**	**124%**	**134%**
5 Year Drought beginning in 2025/26	0%	0%	0%	-50%	-65%	-34%	-37%	-34%	-9%	-8%	-8%	-8%	-9%	-8%	-8%	-8%	-9%	-8%	-9%	-9%
7 Year Drought beginning in 2025/26	0%	0%	0%	-32%	-17%	-23%	-51%	-84%	-50%	-29%	-10%	-11%	-11%	-11%	-10%	-11%	-11%	-11%	-12%	-12%
Above Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	13%	14%	13%	13%	13%	13%	14%	14%	14%	14%	4%	4%	5%	5%	5%	5%	5%
Below Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	-11%	-12%	-12%	-12%	-11%	-11%	-12%	-11%	-12%	-12%	-4%	-4%	-4%	-4%	-4%	-4%	-5%
High Electricity Price Forecast Sensitivity	0%	18%	13%	17%	22%	19%	21%	22%	23%	23%	24%	24%	26%	28%	28%	30%	31%	26%	31%	31%
Low Electricity Price Forecast Sensitivity	0%	-13%	-8%	-11%	-12%	-14%	-14%	-14%	-14%	-14%	-12%	-14%	-15%	-16%	-15%	-17%	-17%	-15%	-18%	-19%
High Interest Rate Sensitivity	0%	1%	-1%	-2%	-4%	-6%	-7%	-10%	-10%	-12%	-12%	-12%	-13%	-12%	-11%	-13%	-13%	-13%	-14%	-16%
Low Interest Rate Sensitivity	0%	0%	1%	2%	3%	4%	6%	8%	8%	10%	10%	10%	10%	9%	8%	9%	10%	9%	10%	11%
Business Operations Capex increase by 10% per year	0%	-12%	-10%	-8%	-10%	-10%	-10%	-10%	-11%	-12%	-12%	-13%	-14%	-12%	-11%	-13%	-15%	-14%	-16%	-18%
Business Operations Capex decrease by 10% per year	0%	14%	11%	9%	12%	11%	11%	12%	13%	15%	15%	16%	17%	15%	13%	15%	17%	15%	18%	20%
2% Rate Path with Government Fees Unchanged	-3%	-48%	-28%	-26%	-29%	-27%	-27%	-28%	-28%	-28%	-28%	-30%	-32%	-30%	-27%	-29%	-31%	-29%	-32%	-34%
0% Rate Increase in 2023/24	0%	-3%	-6%	-6%	-6%	-6%	-7%	-6%	-7%	-7%	-7%	-7%	-8%	-7%	-7%	-8%	-8%	-8%	-9%	-10%
0% Rate Increases in 2023/24 & 2024/25	0%	-3%	-11%	-11%	-12%	-12%	-12%	-12%	-13%	-13%	-13%	-14%	-15%	-14%	-14%	-15%	-17%	-16%	-18%	-19%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0%	-9%	-15%	-15%	-17%	-16%	-17%	-17%	-18%	-18%	-18%	-20%	-21%	-20%	-19%	-22%	-23%	-22%	-25%	-27%

Self-Financing Ratio Fiscal Year Ending March 31	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**140%**	**165%**	**125%**	**98%**	**106%**	**96%**	**94%**	**94%**	**98%**	**105%**	**106%**	**111%**	**118%**	**106%**	**98%**	**107%**	**116%**	**111%**	**124%**	**134%**
5 Year Drought beginning in 2025/26	140%	165%	125%	48%	41%	62%	57%	60%	89%	97%	98%	102%	110%	98%	90%	99%	107%	103%	115%	124%
7 Year Drought beginning in 2025/26	140%	165%	125%	66%	90%	73%	44%	10%	48%	76%	95%	100%	107%	95%	88%	96%	104%	100%	112%	121%
Above Average Water Flows (2025/26 to 2034/35)	140%	165%	125%	111%	120%	109%	107%	108%	111%	119%	119%	125%	133%	110%	102%	112%	121%	115%	129%	139%
Below Average Water Flows (2025/26 to 2034/35)	140%	165%	125%	86%	94%	84%	82%	83%	86%	94%	95%	99%	106%	102%	94%	103%	111%	107%	119%	129%
High Electricity Price Forecast Sensitivity	140%	183%	138%	115%	128%	115%	116%	116%	120%	128%	129%	134%	145%	134%	126%	137%	146%	137%	155%	164%
Low Electricity Price Forecast Sensitivity	140%	152%	116%	87%	94%	82%	81%	80%	84%	92%	93%	97%	103%	89%	82%	90%	98%	95%	106%	115%
High Interest Rate Sensitivity	140%	166%	124%	96%	102%	90%	87%	85%	88%	94%	94%	98%	106%	94%	86%	94%	102%	98%	109%	118%
Low Interest Rate Sensitivity	140%	165%	125%	99%	109%	100%	100%	102%	106%	115%	116%	121%	128%	115%	106%	116%	126%	120%	134%	144%
Business Operations Capex increase by 10% per year	140%	154%	115%	89%	96%	86%	84%	84%	87%	94%	94%	98%	104%	93%	86%	94%	101%	97%	108%	116%
Business Operations Capex decrease by 10% per year	140%	179%	135%	107%	118%	107%	106%	106%	111%	120%	121%	127%	136%	121%	111%	122%	133%	126%	142%	154%
2% Rate Path with Government Fees Unchanged	137%	118%	97%	71%	77%	69%	67%	66%	70%	77%	77%	81%	87%	76%	71%	78%	84%	81%	92%	100%
0% Rate Increase in 2023/24	140%	162%	119%	92%	100%	90%	88%	88%	91%	99%	99%	104%	111%	99%	91%	99%	107%	102%	115%	124%
0% Rate Increases in 2023/24 & 2024/25	140%	162%	114%	86%	94%	84%	82%	82%	85%	93%	93%	97%	103%	92%	84%	92%	99%	95%	106%	114%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	140%	156%	110%	82%	89%	80%	77%	77%	80%	87%	87%	91%	98%	86%	79%	85%	93%	89%	99%	107%

Incremental Increase/(Decrease) from Financial Forecast Scenario Cash Flow to Net Debt Ratio (%) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**5%**	**5%**	**4%**	**3%**	**3%**	**3%**	**3%**	**4%**	**4%**	**4%**	**5%**	**5%**	**5%**	**5%**	**6%**	**6%**	**6%**	**7%**	**7%**	**8%**
5 Year Drought beginning in 2025/26	0%	0%	0%	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
7 Year Drought beginning in 2025/26	0%	0%	0%	-1%	-1%	-1%	-2%	-3%	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%
Above Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Below Average Water Flows (2025/26 to 2034/35)	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%
High Electricity Price Forecast Sensitivity	0%	1%	0%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%	3%	3%	3%	4%	4%	5%
Low Electricity Price Forecast Sensitivity	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%
High Interest Rate Sensitivity	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%
Low Interest Rate Sensitivity	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Business Operations Capex increase by 10% per year	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Business Operations Capex decrease by 10% per year	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	2%
2% Rate Path with Government Fees Unchanged	0%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-3%	-3%	-3%
0% Rate Increase in 2023/24	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
0% Rate Increases in 2023/24 & 2024/25	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	0%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-2%	-2%	-3%

Cash Flow to Net Debt Ratio (%) Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**5%**	**5%**	**4%**	**3%**	**3%**	**3%**	**3%**	**4%**	**4%**	**4%**	**5%**	**5%**	**5%**	**5%**	**6%**	**6%**	**6%**	**7%**	**7%**	**8%**
5 Year Drought beginning in 2025/26	5%	5%	4%	2%	1%	2%	2%	2%	3%	4%	4%	4%	5%	4%	5%	5%	5%	6%	6%	7%
7 Year Drought beginning in 2025/26	5%	5%	4%	2%	3%	3%	2%	0%	2%	3%	4%	4%	4%	4%	4%	5%	5%	5%	6%	6%
Above Average Water Flows (2025/26 to 2034/35)	5%	5%	4%	4%	4%	4%	4%	4%	5%	5%	5%	6%	6%	6%	6%	7%	7%	8%	8%	9%
Below Average Water Flows (2025/26 to 2034/35)	5%	5%	4%	3%	3%	3%	3%	3%	3%	4%	4%	4%	5%	5%	5%	5%	6%	6%	7%	7%
High Electricity Price Forecast Sensitivity	5%	6%	4%	4%	4%	4%	4%	5%	5%	6%	6%	7%	7%	8%	8%	9%	10%	11%	12%	13%
Low Electricity Price Forecast Sensitivity	5%	5%	4%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	4%	5%	5%	5%	6%	6%
High Interest Rate Sensitivity	5%	5%	4%	3%	3%	3%	3%	3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	6%	6%	7%
Low Interest Rate Sensitivity	5%	5%	4%	3%	4%	4%	4%	4%	4%	5%	5%	6%	6%	6%	6%	7%	7%	8%	9%	9%
Business Operations Capex increase by 10% per year	5%	5%	4%	3%	3%	3%	3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	6%	6%	6%	7%
Business Operations Capex decrease by 10% per year	5%	5%	4%	3%	4%	4%	4%	4%	4%	5%	5%	5%	6%	6%	6%	7%	7%	8%	9%	10%
2% Rate Path with Government Fees Unchanged	5%	4%	3%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	5%
0% Rate Increase in 2023/24	5%	5%	4%	3%	3%	3%	3%	3%	4%	4%	4%	4%	5%	5%	5%	5%	6%	6%	7%	7%
0% Rate Increases in 2023/24 & 2024/25	5%	5%	4%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	5%	5%	5%	5%	6%	6%
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	5%	5%	3%	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	4%	5%	5%	5%	6%

Incremental Increase/(Decrease) from Financial Forecast Scenario EBITDA Interest Coverage Ratio Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**2.48**	**2.21**	**2.06**	**1.92**	**1.95**	**1.89**	**1.90**	**1.95**	**1.99**	**2.12**	**2.17**	**2.24**	**2.33**	**2.36**	**2.44**	**2.53**	**2.64**	**2.79**	**2.92**	**3.07**
5 Year Drought beginning in 2025/26	-	-	-	(0.40)	(0.52)	(0.31)	(0.34)	(0.35)	(0.14)	(0.16)	(0.17)	(0.18)	(0.20)	(0.21)	(0.23)	(0.25)	(0.27)	(0.30)	(0.33)	(0.37)
7 Year Drought beginning in 2025/26	-	-	-	(0.26)	(0.14)	(0.21)	(0.45)	(0.76)	(0.51)	(0.37)	(0.22)	(0.23)	(0.25)	(0.27)	(0.29)	(0.32)	(0.35)	(0.38)	(0.42)	(0.46)
Above Average Water Flows (2025/26 to 2034/35)	-	-	-	0.11	0.11	0.12	0.13	0.14	0.15	0.18	0.19	0.21	0.23	0.13	0.14	0.16	0.19	0.20	0.22	0.25
Below Average Water Flows (2025/26 to 2034/35)	-	-	-	(0.09)	(0.10)	(0.11)	(0.11)	(0.12)	(0.13)	(0.14)	(0.15)	(0.16)	(0.18)	(0.11)	(0.12)	(0.13)	(0.14)	(0.15)	(0.17)	(0.19)
High Electricity Price Forecast Sensitivity	-	0.14	0.11	0.15	0.19	0.19	0.22	0.24	0.27	0.31	0.33	0.37	0.43	0.52	0.59	0.66	0.73	0.80	0.93	1.03
Low Electricity Price Forecast Sensitivity	-	(0.11)	(0.07)	(0.09)	(0.11)	(0.13)	(0.13)	(0.14)	(0.16)	(0.17)	(0.18)	(0.20)	(0.23)	(0.27)	(0.30)	(0.33)	(0.36)	(0.37)	(0.43)	(0.48)
High Interest Rate Sensitivity	-	0.00	(0.02)	(0.03)	(0.06)	(0.09)	(0.12)	(0.16)	(0.18)	(0.23)	(0.25)	(0.26)	(0.28)	(0.30)	(0.33)	(0.36)	(0.41)	(0.46)	(0.51)	(0.57)
Low Interest Rate Sensitivity	-	0.00	0.02	0.03	0.06	0.09	0.12	0.15	0.17	0.23	0.25	0.26	0.27	0.29	0.31	0.34	0.39	0.46	0.50	0.56
Business Operations Capex increase by 10% per year	-	(0.00)	(0.01)	(0.01)	(0.02)	(0.03)	(0.03)	(0.04)	(0.05)	(0.06)	(0.08)	(0.09)	(0.11)	(0.13)	(0.15)	(0.17)	(0.20)	(0.23)	(0.27)	(0.31)
Business Operations Capex decrease by 10% per year	-	0.00	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.07	0.09	0.10	0.12	0.13	0.15	0.18	0.22	0.26	0.30	0.36
2% Rate Path with Government Fees Unchanged	(0.34)	(0.32)	(0.32)	(0.30)	(0.32)	(0.33)	(0.34)	(0.36)	(0.39)	(0.43)	(0.46)	(0.49)	(0.55)	(0.57)	(0.62)	(0.67)	(0.73)	(0.80)	(0.87)	(0.96)
0% Rate Increase in 2023/24	-	(0.03)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)	(0.07)	(0.07)	(0.09)	(0.09)	(0.10)	(0.11)	(0.13)	(0.14)	(0.16)	(0.18)	(0.20)	(0.23)	(0.26)
0% Rate Increases in 2023/24 & 2024/25	-	(0.03)	(0.09)	(0.09)	(0.10)	(0.11)	(0.12)	(0.13)	(0.14)	(0.16)	(0.18)	(0.19)	(0.21)	(0.24)	(0.27)	(0.30)	(0.33)	(0.37)	(0.42)	(0.48)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	-	(0.07)	(0.12)	(0.13)	(0.14)	(0.15)	(0.16)	(0.18)	(0.20)	(0.22)	(0.24)	(0.27)	(0.29)	(0.33)	(0.37)	(0.40)	(0.46)	(0.51)	(0.57)	(0.64)

EBITDA Interest Coverage Ratio Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**2.48**	**2.21**	**2.06**	**1.92**	**1.95**	**1.89**	**1.90**	**1.95**	**1.99**	**2.12**	**2.17**	**2.24**	**2.33**	**2.36**	**2.44**	**2.53**	**2.64**	**2.79**	**2.92**	**3.07**
5 Year Drought beginning in 2025/26	2.48	2.21	2.06	1.51	1.43	1.58	1.56	1.60	1.84	1.96	2.00	2.06	2.14	2.15	2.21	2.28	2.37	2.48	2.59	2.70
7 Year Drought beginning in 2025/26	2.48	2.21	2.06	1.66	1.81	1.69	1.45	1.18	1.48	1.75	1.95	2.00	2.08	2.09	2.15	2.21	2.30	2.41	2.50	2.61
Above Average Water Flows (2025/26 to 2034/35)	2.48	2.21	2.06	2.02	2.06	2.02	2.04	2.09	2.14	2.30	2.37	2.45	2.56	2.49	2.58	2.69	2.83	2.99	3.14	3.33
Below Average Water Flows (2025/26 to 2034/35)	2.48	2.21	2.06	1.83	1.85	1.79	1.80	1.83	1.86	1.98	2.02	2.07	2.15	2.26	2.32	2.40	2.50	2.63	2.75	2.88
High Electricity Price Forecast Sensitivity	2.48	2.35	2.18	2.07	2.13	2.08	2.12	2.18	2.25	2.43	2.51	2.60	2.77	2.88	3.03	3.19	3.38	3.59	3.85	4.10
Low Electricity Price Forecast Sensitivity	2.48	2.10	1.99	1.83	1.84	1.77	1.77	1.80	1.83	1.95	1.99	2.04	2.10	2.09	2.14	2.20	2.29	2.41	2.49	2.59
High Interest Rate Sensitivity	2.48	2.21	2.04	1.89	1.89	1.80	1.78	1.79	1.81	1.89	1.92	1.98	2.05	2.06	2.11	2.17	2.24	2.33	2.41	2.50
Low Interest Rate Sensitivity	2.48	2.21	2.08	1.95	2.01	1.98	2.02	2.10	2.16	2.35	2.43	2.50	2.61	2.65	2.75	2.86	3.04	3.24	3.42	3.64
Business Operations Capex increase by 10% per year	2.48	2.21	2.06	1.90	1.93	1.87	1.87	1.90	1.94	2.06	2.10	2.15	2.23	2.24	2.29	2.35	2.44	2.55	2.65	2.76
Business Operations Capex decrease by 10% per year	2.48	2.21	2.07	1.93	1.96	1.92	1.94	1.99	2.04	2.19	2.26	2.34	2.45	2.49	2.59	2.70	2.86	3.05	3.22	3.43
2% Rate Path with Government Fees Unchanged	2.14	1.89	1.75	1.61	1.62	1.57	1.57	1.59	1.60	1.69	1.72	1.74	1.79	1.79	1.82	1.86	1.91	1.99	2.05	2.11
0% Rate Increase in 2023/24	2.48	2.18	2.02	1.87	1.89	1.84	1.84	1.88	1.91	2.03	2.08	2.13	2.22	2.24	2.30	2.37	2.46	2.59	2.69	2.81
0% Rate Increases in 2023/24 & 2024/25	2.48	2.18	1.98	1.82	1.85	1.78	1.79	1.82	1.85	1.96	2.00	2.04	2.12	2.13	2.17	2.23	2.31	2.41	2.50	2.59
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	2.48	2.14	1.94	1.79	1.80	1.74	1.74	1.77	1.79	1.90	1.93	1.97	2.04	2.04	2.07	2.12	2.19	2.28	2.35	2.43

Incremental Increase/(Decrease) from Financial Forecast Scenario **EBIT Interest Coverage Ratio** **Fiscal Year Ending March 31**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**1.80**	**1.51**	**1.32**	**1.16**	**1.18**	**1.10**	**1.10**	**1.11**	**1.11**	**1.18**	**1.20**	**1.23**	**1.29**	**1.27**	**1.30**	**1.33**	**1.39**	**1.48**	**1.57**	**1.65**
5 Year Drought beginning in 2025/26	-	-	-	(0.40)	(0.50)	(0.28)	(0.30)	(0.29)	(0.08)	(0.09)	(0.09)	(0.10)	(0.11)	(0.11)	(0.12)	(0.13)	(0.14)	(0.16)	(0.18)	(0.20)
7 Year Drought beginning in 2025/26	-	-	-	(0.26)	(0.13)	(0.19)	(0.43)	(0.72)	(0.44)	(0.28)	(0.12)	(0.13)	(0.14)	(0.14)	(0.15)	(0.17)	(0.18)	(0.20)	(0.22)	(0.25)
Above Average Water Flows (2025/26 to 2034/35)	-	-	-	0.11	0.11	0.11	0.12	0.12	0.13	0.15	0.15	0.16	0.17	0.07	0.08	0.08	0.10	0.11	0.12	0.14
Below Average Water Flows (2025/26 to 2034/35)	-	-	-	(0.09)	(0.09)	(0.10)	(0.10)	(0.10)	(0.11)	(0.12)	(0.12)	(0.13)	(0.14)	(0.06)	(0.06)	(0.07)	(0.07)	(0.08)	(0.09)	(0.10)
High Electricity Price Forecast Sensitivity	-	0.14	0.11	0.14	0.17	0.17	0.19	0.20	0.22	0.25	0.26	0.28	0.33	0.39	0.45	0.49	0.52	0.55	0.65	0.69
Low Electricity Price Forecast Sensitivity	-	(0.11)	(0.06)	(0.08)	(0.10)	(0.11)	(0.11)	(0.12)	(0.13)	(0.14)	(0.14)	(0.15)	(0.17)	(0.20)	(0.21)	(0.23)	(0.24)	(0.25)	(0.28)	(0.31)
High Interest Rate Sensitivity	-	0.00	(0.01)	(0.02)	(0.04)	(0.05)	(0.07)	(0.09)	(0.10)	(0.13)	(0.14)	(0.14)	(0.16)	(0.16)	(0.18)	(0.19)	(0.21)	(0.24)	(0.27)	(0.31)
Low Interest Rate Sensitivity	-	0.00	0.01	0.02	0.04	0.05	0.07	0.09	0.10	0.13	0.14	0.15	0.15	0.16	0.16	0.18	0.21	0.24	0.27	0.30
Business Operations Capex increase by 10% per year	-	(0.00)	(0.01)	(0.01)	(0.02)	(0.02)	(0.03)	(0.04)	(0.04)	(0.05)	(0.06)	(0.07)	(0.09)	(0.10)	(0.11)	(0.13)	(0.15)	(0.17)	(0.19)	(0.22)
Business Operations Capex decrease by 10% per year	-	0.00	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.14	0.16	0.19	0.22	0.25
2% Rate Path with Government Fees Unchanged	(0.26)	(0.24)	(0.22)	(0.21)	(0.22)	(0.21)	(0.22)	(0.23)	(0.24)	(0.26)	(0.28)	(0.29)	(0.33)	(0.33)	(0.35)	(0.38)	(0.41)	(0.45)	(0.49)	(0.54)
0% Rate Increase in 2023/24	-	(0.03)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)	(0.07)	(0.07)	(0.08)	(0.09)	(0.09)	(0.10)	(0.11)	(0.13)	(0.14)	(0.16)	(0.18)
0% Rate Increases in 2023/24 & 2024/25	-	(0.03)	(0.09)	(0.09)	(0.09)	(0.10)	(0.10)	(0.11)	(0.12)	(0.13)	(0.14)	(0.15)	(0.16)	(0.18)	(0.20)	(0.21)	(0.24)	(0.26)	(0.29)	(0.32)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	-	(0.07)	(0.12)	(0.12)	(0.13)	(0.14)	(0.14)	(0.15)	(0.16)	(0.18)	(0.19)	(0.21)	(0.22)	(0.24)	(0.27)	(0.29)	(0.32)	(0.35)	(0.39)	(0.43)

EBIT Interest Coverage Ratio **Fiscal Year Ending March 31**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
Amended Financial Forecast Scenario	**1.80**	**1.51**	**1.32**	**1.16**	**1.18**	**1.10**	**1.10**	**1.11**	**1.11**	**1.18**	**1.20**	**1.23**	**1.29**	**1.27**	**1.30**	**1.33**	**1.39**	**1.48**	**1.57**	**1.65**
5 Year Drought beginning in 2025/26	1.80	1.51	1.32	0.76	0.68	0.82	0.79	0.82	1.03	1.09	1.11	1.13	1.18	1.15	1.18	1.20	1.25	1.32	1.39	1.45
7 Year Drought beginning in 2025/26	1.80	1.51	1.32	0.90	1.05	0.91	0.67	0.39	0.67	0.90	1.08	1.10	1.15	1.12	1.15	1.17	1.21	1.28	1.34	1.40
Above Average Water Flows (2025/26 to 2034/35)	1.80	1.51	1.32	1.27	1.29	1.22	1.22	1.24	1.24	1.32	1.36	1.39	1.47	1.34	1.38	1.42	1.49	1.59	1.69	1.78
Below Average Water Flows (2025/26 to 2034/35)	1.80	1.51	1.32	1.07	1.08	1.00	1.00	1.01	1.00	1.06	1.08	1.10	1.15	1.21	1.24	1.27	1.32	1.40	1.47	1.55
High Electricity Price Forecast Sensitivity	1.80	1.65	1.43	1.30	1.35	1.27	1.29	1.32	1.33	1.43	1.46	1.51	1.62	1.66	1.75	1.82	1.91	2.04	2.21	2.34
Low Electricity Price Forecast Sensitivity	1.80	1.40	1.26	1.08	1.08	0.99	0.98	0.99	0.98	1.04	1.06	1.08	1.12	1.07	1.09	1.10	1.15	1.24	1.28	1.34
High Interest Rate Sensitivity	1.80	1.51	1.31	1.14	1.14	1.05	1.03	1.02	1.01	1.05	1.06	1.09	1.14	1.10	1.13	1.14	1.18	1.24	1.29	1.34
Low Interest Rate Sensitivity	1.80	1.51	1.34	1.18	1.21	1.15	1.16	1.20	1.20	1.31	1.34	1.38	1.44	1.42	1.47	1.51	1.60	1.73	1.84	1.95
Business Operations Capex increase by 10% per year	1.80	1.51	1.32	1.15	1.16	1.08	1.07	1.08	1.06	1.12	1.14	1.16	1.21	1.17	1.19	1.20	1.24	1.32	1.38	1.43
Business Operations Capex decrease by 10% per year	1.80	1.51	1.33	1.17	1.19	1.12	1.13	1.15	1.15	1.24	1.27	1.31	1.39	1.37	1.42	1.47	1.55	1.68	1.79	1.90
2% Rate Path with Government Fees Unchanged	1.54	1.27	1.10	0.95	0.96	0.89	0.88	0.89	0.87	0.92	0.93	0.94	0.97	0.94	0.95	0.96	0.98	1.03	1.08	1.11
0% Rate Increase in 2023/24	1.80	1.48	1.28	1.12	1.13	1.05	1.04	1.06	1.05	1.11	1.13	1.15	1.20	1.17	1.20	1.22	1.27	1.34	1.41	1.47
0% Rate Increases in 2023/24 & 2024/25	1.80	1.48	1.24	1.07	1.08	1.00	0.99	1.00	0.99	1.05	1.06	1.08	1.13	1.09	1.11	1.12	1.16	1.22	1.28	1.32
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	1.80	1.44	1.20	1.04	1.05	0.96	0.95	0.96	0.95	1.00	1.01	1.02	1.07	1.02	1.04	1.04	1.07	1.13	1.18	1.21

Incremental Increase/(Decrease) from Financial Forecast Scenario Capital Coverage Ratio Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**2.26**	**2.23**	**1.61**	**1.20**	**1.21**	**1.08**	**1.06**	**1.06**	**1.08**	**1.16**	**1.16**	**1.21**	**1.29**	**1.27**	**1.32**	**1.37**	**1.43**	**1.52**	**1.59**	**1.66**
5 Year Drought beginning in 2025/26	-	-	-	(0.60)	(0.73)	(0.38)	(0.41)	(0.37)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)	(0.11)	(0.11)	(0.12)
7 Year Drought beginning in 2025/26	-	-	-	(0.39)	(0.19)	(0.25)	(0.56)	(0.92)	(0.55)	(0.31)	(0.11)	(0.12)	(0.12)	(0.13)	(0.13)	(0.13)	(0.14)	(0.14)	(0.15)	(0.15)
Above Average Water Flows (2025/26 to 2034/35)	-	-	-	0.15	0.15	0.14	0.14	0.15	0.14	0.15	0.15	0.15	0.15	0.05	0.05	0.06	0.06	0.06	0.06	0.06
Below Average Water Flows (2025/26 to 2034/35)	-	-	-	(0.13)	(0.14)	(0.13)	(0.13)	(0.13)	(0.12)	(0.12)	(0.12)	(0.13)	(0.13)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.06)
High Electricity Price Forecast Sensitivity	-	0.24	0.16	0.21	0.24	0.22	0.23	0.24	0.25	0.25	0.26	0.26	0.28	0.33	0.37	0.38	0.37	0.36	0.39	0.38
Low Electricity Price Forecast Sensitivity	-	(0.18)	(0.11)	(0.13)	(0.13)	(0.16)	(0.15)	(0.15)	(0.15)	(0.15)	(0.13)	(0.15)	(0.17)	(0.19)	(0.20)	(0.21)	(0.21)	(0.21)	(0.22)	(0.23)
High Interest Rate Sensitivity	-	0.01	(0.01)	(0.02)	(0.04)	(0.07)	(0.08)	(0.10)	(0.11)	(0.13)	(0.13)	(0.13)	(0.14)	(0.14)	(0.15)	(0.16)	(0.16)	(0.18)	(0.18)	(0.19)
Low Interest Rate Sensitivity	-	(0.00)	0.01	0.02	0.04	0.05	0.06	0.09	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.13
Business Operations Capex increase by 10% per year	-	(0.20)	(0.15)	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)	(0.13)	(0.13)	(0.14)	(0.15)	(0.16)	(0.16)	(0.18)	(0.19)	(0.20)	(0.22)	(0.22)	(0.24)
Business Operations Capex decrease by 10% per year	-	0.25	0.18	0.14	0.15	0.14	0.14	0.14	0.15	0.17	0.18	0.19	0.20	0.20	0.21	0.22	0.24	0.26	0.27	0.28
2% Rate Path with Government Fees Unchanged	(0.05)	(0.63)	(0.35)	(0.32)	(0.32)	(0.30)	(0.30)	(0.31)	(0.30)	(0.31)	(0.31)	(0.32)	(0.34)	(0.35)	(0.36)	(0.37)	(0.38)	(0.40)	(0.40)	(0.42)
0% Rate Increase in 2023/24	-	(0.04)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)	(0.08)	(0.09)	(0.09)	(0.10)	(0.10)	(0.11)	(0.11)	(0.12)
0% Rate Increases in 2023/24 & 2024/25	-	(0.04)	(0.14)	(0.14)	(0.14)	(0.13)	(0.14)	(0.13)	(0.14)	(0.14)	(0.14)	(0.15)	(0.16)	(0.17)	(0.18)	(0.19)	(0.20)	(0.22)	(0.23)	(0.24)
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	-	(0.12)	(0.19)	(0.18)	(0.19)	(0.18)	(0.19)	(0.19)	(0.19)	(0.20)	(0.20)	(0.21)	(0.22)	(0.23)	(0.25)	(0.27)	(0.28)	(0.30)	(0.32)	(0.33)

Capital Coverage Ratio Fiscal Year Ending March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Amended Financial Forecast Scenario	**2.26**	**2.23**	**1.61**	**1.20**	**1.21**	**1.08**	**1.06**	**1.06**	**1.08**	**1.16**	**1.16**	**1.21**	**1.29**	**1.27**	**1.32**	**1.37**	**1.43**	**1.52**	**1.59**	**1.66**
5 Year Drought beginning in 2025/26	2.26	2.23	1.61	0.60	0.48	0.70	0.66	0.69	0.99	1.07	1.08	1.12	1.20	1.17	1.22	1.26	1.33	1.41	1.47	1.54
7 Year Drought beginning in 2025/26	2.26	2.23	1.61	0.82	1.03	0.83	0.50	0.14	0.54	0.85	1.05	1.09	1.17	1.14	1.19	1.23	1.29	1.38	1.44	1.51
Above Average Water Flows (2025/26 to 2034/35)	2.26	2.23	1.61	1.36	1.37	1.23	1.20	1.20	1.23	1.31	1.31	1.36	1.44	1.32	1.37	1.42	1.49	1.59	1.65	1.72
Below Average Water Flows (2025/26 to 2034/35)	2.26	2.23	1.61	1.07	1.08	0.95	0.93	0.93	0.96	1.04	1.04	1.09	1.16	1.22	1.27	1.32	1.38	1.47	1.53	1.60
High Electricity Price Forecast Sensitivity	2.26	2.46	1.78	1.41	1.46	1.30	1.30	1.29	1.33	1.41	1.42	1.47	1.57	1.60	1.69	1.75	1.80	1.88	1.97	2.04
Low Electricity Price Forecast Sensitivity	2.26	2.05	1.51	1.07	1.08	0.93	0.91	0.90	0.93	1.01	1.03	1.06	1.12	1.08	1.12	1.15	1.22	1.32	1.36	1.43
High Interest Rate Sensitivity	2.26	2.23	1.61	1.18	1.17	1.02	0.98	0.95	0.97	1.04	1.03	1.08	1.15	1.13	1.17	1.21	1.27	1.35	1.41	1.47
Low Interest Rate Sensitivity	2.26	2.22	1.63	1.22	1.25	1.13	1.13	1.14	1.18	1.27	1.27	1.32	1.40	1.38	1.43	1.48	1.55	1.65	1.71	1.79
Business Operations Capex increase by 10% per year	2.26	2.02	1.46	1.08	1.09	0.97	0.94	0.94	0.96	1.03	1.02	1.06	1.13	1.11	1.14	1.18	1.23	1.31	1.36	1.42
Business Operations Capex decrease by 10% per year	2.26	2.47	1.80	1.34	1.36	1.22	1.20	1.20	1.24	1.33	1.34	1.40	1.49	1.47	1.53	1.59	1.67	1.78	1.86	1.94
2% Rate Path with Government Fees Unchanged	2.20	1.59	1.26	0.88	0.89	0.78	0.76	0.75	0.78	0.85	0.86	0.89	0.95	0.92	0.96	1.00	1.05	1.13	1.18	1.24
0% Rate Increase in 2023/24	2.26	2.18	1.54	1.13	1.14	1.02	0.99	0.99	1.01	1.09	1.09	1.14	1.21	1.18	1.23	1.27	1.33	1.41	1.47	1.54
0% Rate Increases in 2023/24 & 2024/25	2.26	2.18	1.48	1.07	1.08	0.95	0.93	0.92	0.95	1.03	1.02	1.06	1.13	1.10	1.14	1.18	1.23	1.31	1.36	1.42
3.6% Interim rolled back on Sept 1/23, 2.0% in 2024/25	2.26	2.10	1.42	1.02	1.02	0.90	0.88	0.87	0.89	0.97	0.96	1.00	1.07	1.04	1.07	1.10	1.15	1.23	1.27	1.33

MFR 33 (Amended)

Prior references
PUB/MH II-39 2017/18 & 2018/19 GRA

Financial Information

Key Variable Sensitivity Impacts to Retained Earnings in a similar format to PUB/MH II-39 (2017/18 & 2018/19 GRA) showing the forecast retained earnings for each year and for each sensitivity. That is, show both the change in retained earnings as well as the resulting retained earnings. Also, show the equal annual rate changes over 10 years and 20 years to achieve the same equity levels as the base Financial Forecast.

Please refer to Tab 4 (Amended) for a full description of the key variable sensitivities and Appendix 4.4 (Amended) for the impacts of each of these sensitivities on the forecast retained earnings for each year. The table below summarizes the incremental equal annual rate changes over 10 years and 20 years to achieve the same level of retained earnings in the Amended Financial Forecast Scenario. The annual rate increases/(decrease) shown in the table are incremental to the annual rates included in the Amended Financial Forecast Scenario described in Tab 4 (Amended) and found in Appendix 4.1 (Amended).

Financial Forecast Scenario	Incremental Annual Rate Increase/(Decrease) required over the 9-year period (2023/24-2031/32) to achieve the same level of Retained Earings ($5.2B) in 2031/32 as in the Amended Financial Forecast Scenario	Incremental Annual Rate Increase/(Decrease) required over the 19-year period (2023/24-2041/42) to achieve the same level of Retained Earings ($8.6B) in 2041/42 as in the Amended Financial Forecast Scenario
5 Year Drought beginning in 2025/26	1.67%	0.41%
7 Year Drought beginning in 2025/26	2.13%	0.53%
Above Average Water Flows (2025/26 to 2034/35)	-0.74%	-0.24%
Below Average Water Flows (2025/26 to 2034/35)	0.61%	0.20%
High Electricity Price Forecast Sensitivity	-1.37%	-0.73%
Low Electricity Price Forecast Sensitivity	0.83%	0.39%
High Interest Rate Sensitivity	0.41%	0.27%
Low Interest Rate Sensitivity	-0.38%	-0.24%
Business Operations Capex increase by 10% per year	0.19%	0.18%
Business Operations Capex decrease by 10% per year	-0.19%	-0.17%

4

The following series of figures demonstrates the changes over the 20-year planning horizon between the two forecast scenarios.

Net Finance Expense

Figure 4 below compares net finance expense between the two financial forecast scenarios. Annual net finance expense in the Amended Financial Forecast scenario is on average $120 million lower which results in a cumulative decrease of $2.44 billion (as shown in Figure 5) over the 20-year forecast period. The decrease to net finance expense is primarily due to the reduction of the provincial guarantee fee from 100 to 50 basis points effective April, 1, 2022.

Figure 4 Net Finance Expense

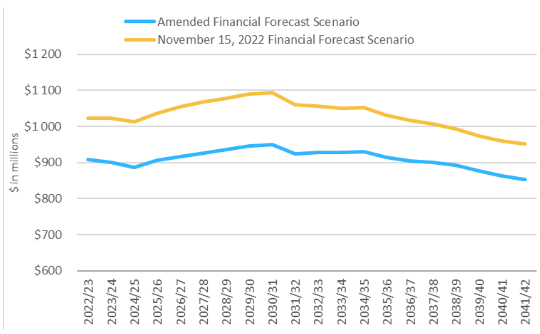
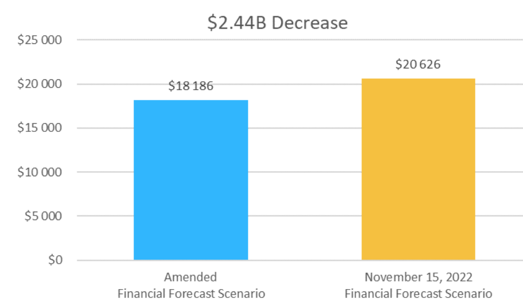


Figure 5 20 Year Cumulative Net Finance Expense



Water Rentals & Assessments

Figure 6 below compares the water rentals and assessments between the two financial forecast scenarios. Annual water rentals in the Amended Financial Forecast Scenario is on average $60 million lower which results in a cumulative decrease of $1.23 billion (as shown in Figure 7) over the 20-year forecast period. The decrease to water rentals is due to the reduction of the water rental rate from $20.32 to $10.16 per horsepower year output effective April 1, 2022.

Figure 6 Water Rentals & Assessments

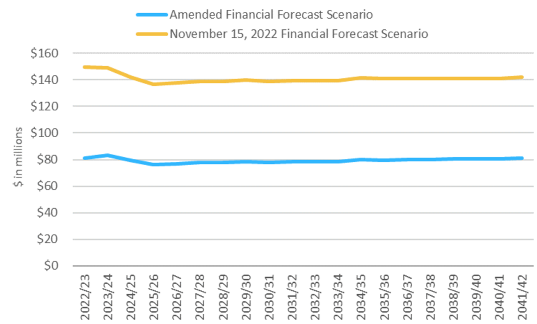
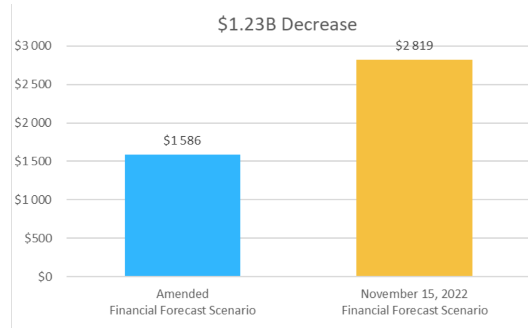


Figure 7 20 Year Cumulative Water Rentals & Assessments



The combined reduction to net finance expense ($2.44 billion) and water rentals ($1.23 billion) total $3.67 over the 20-year forecast period.

Additional Domestic Revenue

Figure 8 below compares the cumulative rate increases projected under each rate path in the two financial forecast scenarios. Both rate paths project cumulative rate increases in the 45% range by the end of the planning horizon. As shown in Figure 9, the 2.0% rate path in the Amended Financial Forecast Scenario is projected to collect $3.80 billion less additional rate revenue from customers over the 20-year forecast period.

Figure 8 Proposed Cumulative Rate Increases

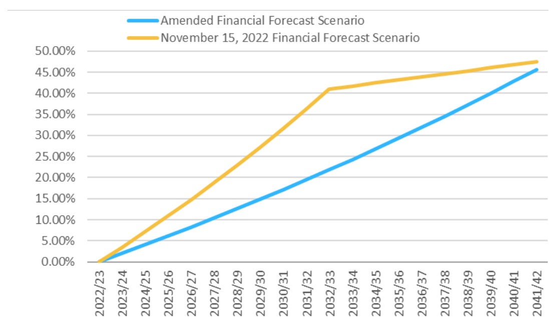
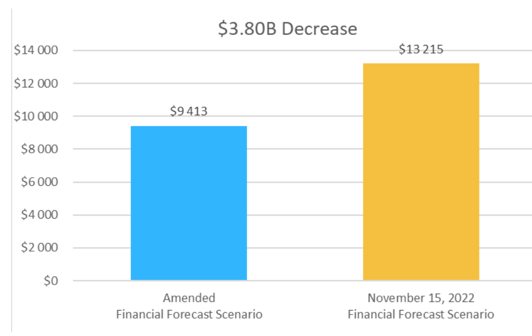


Figure 9 20 Year Cumulative Additional Domestic Revenue



Over the 20-year forecast period, the $3.67 billion combined reduction to net finance expense and water rentals is largely matched by a $3.80 billion reduction to additional rate revenue by adjusting to the 2.0% rate path. Despite the significant changes to these expense and revenue items, the two financial forecast scenarios generate similar financial results over the 20-year planning horizon. Aside from timing differences, the two scenarios are projected to be in very similar financial positions in the last year of the 20-year planning horizon. The following section will illustrate the differences to key financial metrics between the two forecast scenarios.

Fifth Session – Forty-Second Legislature

of the

Legislative Assembly of Manitoba

DEBATES
and
PROCEEDINGS

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(Hansard)

Published under the
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The Honourable Myrna Driedger
Speaker

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MINISTERIAL STATEMENTS

Mr. Deputy Speaker: And I would advise the House that the required 90 minutes notice prior to routine proceedings was provided in accordance with the rules.

Would the honourable minister please proceed with the statement.

Manitoba Hydro's Finances

Hon. Cameron Friesen (Minister responsible for Manitoba Hydro): Mr. Deputy Speaker, today our government is advancing an initiative aimed at further stabilizing Manitoba Hydro's finances.

The November 15th Speech from the Throne stated that our government will financially stabilize Hydro and that additional announcements will be made to ensure Hydro continues to be affordable for Manitoba taxpayers.

Manitoba Hydro currently has a debt-equity ratio of 87-13, which is very high compared to other hydro-electric public utilities in Canada. Financing costs, including interest payments and the fee, currently exceed $1 billion. In addition, interest rates are on the rise. Today, the rate on the 30-year Manitoba bond is over 4 per cent versus just 3 per cent in January.

Mr. Deputy Speaker, our government has been working hard to repair the shameful record and actions of the NDP over their 17 years in government. Manitoba Hydro is arguably one of the worst examples of NDP mismanagement, and their decision making resulted in higher rates for ratepayers and record debt for Manitoba Hydro.

We know the former NDP government tripled Manitoba Hydro's debt. We know that they raised hydro rates significantly more than under our government: 11 increases over the span of their 12 years in office, some years, hydro rates as high as 5 per cent.

Manitobans know that Hydro would not be in its current financial situation was it not for the NDP mismanagement of Keeyask and Bipole III projects, which saw cost overruns in excess of $4 billion, while bypassing the very regulatory oversight processes designed to protect ratepayers and hiding escalating project costs in a diminishing business case.

Members opposite rely on fear mongering to hide their record, but Manitobans will not be fooled. They know that this debt has been saddled on the backs of Manitobans. They know this debt equates to $16,000 per household in Manitoba.

In Moody's 2022 credit opinion for Manitoba, it noted that Manitoba Hydro's debt remained the largest contingent liability for the province and a credit rating downgrade risk. The Public Utilities Board opined that most payments from Hydro to Manitoba are driven by debt–the fee and the capital tax, which combine for about $350 million–and not financial performance. The economic review of Bipole III and Keeyask also noted similar concerns identified by the PUB during the Needs For and Alternatives To Review.

Now is the time to act for a number of reasons, including rising interest rates, and the high level of debt carried by Hydro.

The opposition party says the answer is to freeze electricity rates at zero per cent, and ignore the ballooning debt carried by Manitoba Hydro. Not only is this irresponsible, but it would likely to have–it would be likely to have serious impacts on our credit rating. The NDP is not disclosing the serious risk of rate shocks and higher borrowing costs in an area of–era of already high interest rates and the impact of the costs on ratepayers.

Mr. Deputy Speaker, we need only look to the east coast, where Nova Scotia, a bill introduced by the government to significantly limit rate increases to 1.8 per cent for three years–not the zero per cent proposed by the opposition–has led to a credit rating downgrade on Nova Scotia Power two days ago. Their bond status is now non-investment grade, which is credit-rating speak for junk bond status. Our government will not be taking the NDP junk bond status approach.

S & P Global Ratings view the enactment of the government–of the Nova Scotia government's bill as political interference, because it undermines the regulatory construct, materially weakens the regulatory jurisdiction's predictability and increases the uncertainty for its utility and stakeholders.

The Manitoba government, Mr. Deputy Speaker, is therefore taking a much more prudent approach that will result in a very positive outcome for Manitoba Hydro, but more importantly, for Manitoba Hydro ratepayers.

As Manitoba Hydro indicated in its November the 15th rate application with the PUB, reaching bill 36 debt-equity targets will be challenging within the 3.5 per cent requested for 2023 and 2024. Following increases of 2.9 per cent in 2021 and 3.6 per cent interim rate approved by the PUB in 2022, the record high inflation that households and businesses are experiencing today, we believe that working with the government's assistance, Manitoba Hydro can do better for Manitobans.

Hydro payments to Manitoba are higher than other public utilities to their provincial governments. Hydro pays over 16 per cent of its revenue in transfers to Manitobans, including the rental, the fee, capital tax and the payroll tax. Only Hydro-Québec pays more money to the provincial government, primarily because, with a lower debt-equity ratio of 70-30, it is solvent enough to also pay a dividend.

In this regard, I want to confirm today that our government has approved the following changes to better support Manitoba Hydro and better support Manitoba Hydro ratepayers:

Under The Water Power Act and accompanying water power regulation, Manitoba Hydro currently pays rent for the use of water. We have approved an amendment to reduce the water power rental rate by 50 per cent. Once signed by the Lieutenant Governor-in-Council, the order-in-council and regulation will be posted on the government's website under proactive disclosure.

* (13:50)

A debt guarantee fee paid annually for the Province's guarantee of Manitoba Hydro's gross outstanding debt balances at the previous fiscal year-end is currently calculated based on the rate of 1 per cent or 100 basis points. Manitoba is reducing the rate of the fee from 100 basis points to 50 per cent–50 basis points, a 50 per cent reduction.

Mr. Deputy Speaker, the savings from these reductions will be applied annually to Manitoba Hydro's debt. For 2022-2023, these savings are estimated at nearly $190 million. As part of this initiative, the government will require that Manutoba *[phonetic]* Hydro annually confirm the projected amount of the savings through the budget Estimates review process and report the actual savings realized in Manitoba Hydro's annual report as a payment against debt.

It is anticipated that applying these savings to debt will save Manitoba Hydro and ratepayers $4 billion in accumulated debt over the next 20 years. Ultimately, the impact on rates will be determined through general rate application hearings and the Public Utilities Board.

As this initiative represents a material impact on Manitoba Hydro's 2022-2023 and future financial forecasts, we expect that it would warrant amendments to be made to the November 15th general rate application currently filed with the Public Utilities Board.

I would now like to offer just a little context on the previous administration's actions to impose higher rental rates and fees on Hydro.

Originally, when Manitoba began to borrow on behalf of Hydro in 1962, that fee was 12.5 basis points. It was raised by the previous government to 65 basis points in 2000, to 70 basis points in 2001, 95 basis points in 2002 and 100 basis points in 2007. Where other provinces assess fees ranging from 25 to 65 basis points, Manitoba was clearly out of line with other provinces; but no longer.

The water rental rate paid by Hydro was in place since 2002, when the previous government increased it from $9.90 per horsepower year output to $20.32, immediately doubling the rental paid to Manitoba.

Mr. Deputy Speaker, in conclusion, Manitoba Hydro is important for Manitoba. Manitoba Hydro is one of our most important assets in shaping our province's economic future, and our government will continue to work with Manitoba Hydro in leading, in providing clean hydroelectric power for Manitobans and their businesses and offering among the lowest rates in the country for years to come.

Mr. Deputy Speaker, our plan has always been clear that our plan is to stabilize Manitoba Hydro and protect the low-rate advantage enjoyed by Manitoba ratepayers. In particular, our government will continue to work to secure Manitoba Hydro's financial stability for the benefit of all Manitobans.

Mr. Deputy Speaker: We have seated in the public gallery from River East Collegiate 20 grade 9 students under the direction of Dennis–*[interjection]* Okay. Okay. I'm told we will finish the ministerial statements and then acknowledge said students.

So please, the honourable member for St. James.

Mr. Adrien Sala (St. James): Nothing that the minister just shared will help to make Manitoba Hydro more affordable for Manitobans. On that side of the House, they introduced legislation to raise hydro rates. On this side of the House, we're working to freeze hydro rates for Manitobans, to keep rates affordable.

The PC government has been–*[interjection]*

Mr. Deputy Speaker: Order.

THE MANITOBA HYDRO AMENDMENT AND PUBLIC UTILITIES BOARD AMENDMENT ACT

STATUTES OF MANITOBA 2022

Chapter 42

Bill 36
4th Session, 42nd Legislature

Assented to November 3, 2022

LOI MODIFIANT LA LOI SUR L'HYDRO-MANITOBA ET LA LOI SUR LA RÉGIE DES SERVICES PUBLICS

LOIS DU MANITOBA 2022

Chapitre 42

Projet de loi 36
4e session, 42e législature

Date de sanction : 3 novembre 2022

Integrated resource plan to be published
38.1(7) After an integrated resource plan or a plan update is approved by the Lieutenant Governor in Council, the corporation must publish the plan or updated plan, as the case may be, on its website.

Regulations re integrated resource plans
38.1(8) The Lieutenant Governor in Council may make regulations respecting integrated resource plans, including regulations respecting the form or content of a plan or an update to a plan, when the first plan is to be submitted to the minister and the timing and frequency of plan updates.

13 The centred heading before section 39 and section 39 are replaced with the following:

ELECTRICITY RATES

Definitions
39(1) The following definitions apply in this section and sections 39.1 to 39.6.

"debt-to-capitalization ratio" means the ratio of the portion of the corporation's assets financed by debt to the corporation's total assets, expressed as a percentage and determined in accordance with the regulations. (« ratio d'endettement »)

"rate" means an amount that may be charged for the provision of power by the corporation, or a formula, method or procedure for determining such an amount, but does not include a capital recovery fee or contribution payable by a customer to offset or recover capital expenditures incurred by the corporation to extend or enhance the supply of power to a customer as contemplated by section 49.1. (« tarif »)

"rate period" means the period of three consecutive fiscal years of the corporation beginning

(a) on April 1, 2025; or

Publication du plan intégré des ressources
38.1(7) Lorsqu'un plan intégré des ressources ou sa mise à jour a été approuvé par le lieutenant-gouverneur en conseil, la Régie publie ce document sur son site Web.

Règlements — plans intégrés des ressources
38.1(8) Le lieutenant-gouverneur en conseil peut, par règlement, prendre des mesures concernant les plans intégrés des ressources, y compris quant à la forme ou au contenu d'un plan ou de sa mise à jour, quant au moment où le premier plan doit être soumis au ministre et quant au moment et à la fréquence des mises à jour.

13 L'intertitre qui précède l'article 39 et l'article 39 sont remplacés par ce qui suit :

TARIFS D'ÉLECTRICITÉ

Définitions
39(1) Les définitions qui suivent s'appliquent au présent article ainsi qu'aux articles 39.1 à 39.6.

« besoin en revenus » Revenus nécessaires pendant chacun des exercices de la période tarifaire :

a) pour payer les coûts raisonnables que prévoit la Régie à l'égard de cet exercice, notamment :

(i) ses dépenses d'exploitation, d'entretien et d'administration,

(ii) les sommes afférentes à ses dépenses en immobilisations,

(iii) les frais de service de la dette,

(iv) les sommes devant être tirées des revenus de la Régie, notamment pour les achats d'énergie, les taxes et les droits;

(b) on the day immediately following the end of the previous rate period. (« période tarifaire »)

"revenue requirement", in relation to a rate period, means the amount of rate revenue required in each fiscal year within the rate period

(a) to pay the reasonable costs forecast by the corporation for that fiscal year, including

(i) the corporation's operating, maintenance and administrative expenses,

(ii) amounts in respect of capital expenditures,

(iii) debt service costs, and

(iv) power purchases, taxes, fees and other amounts required to be paid out of the corporation's revenue; and

(b) to achieve, in accordance with the regulations, the financial targets set out or referred to in subsection 39.1(1) and address material risks that could affect the achievement of those targets. (« besoin en revenus »)

b) pour réaliser, en conformité avec les règlements, les objectifs financiers visés au paragraphe 39.1(1) et prévenir les risques importants qui pourraient avoir des incidences sur la réalisation de ces objectifs. ("revenue requirement")

« période tarifaire » Période formée de trois exercices consécutifs de la Régie débutant :

a) soit le 1er avril 2025;

b) soit le jour suivant la fin de la période tarifaire précédente. ("rate period")

« ratio d'endettement » Rapport entre la partie de l'actif de la Régie qui est financée par les emprunts et l'actif total de la Régie, exprimé sous forme de pourcentage et calculé en conformité avec les règlements. ("debt-to-capitalization ratio")

« tarif » Somme que la Régie peut demander pour l'énergie qu'elle fournit, ou encore formule, méthode ou procédure de fixation d'une telle somme. Cette définition n'inclut pas les frais de recouvrement des investissements ou la contribution aux dépenses en immobilisations que demande la Régie à certains clients afin de compenser ou de recouvrer les dépenses en immobilisations qu'elle a engagées pour fournir de l'énergie ou pour augmenter la quantité d'énergie fournie à ces clients conformément à l'article 49.1. ("rate")

General rate application
39(2) Before each rate period, the corporation must apply to the regulator for approval of a schedule of rates for the provision of power to retail customers in Manitoba during that rate period.

Demande d'approbation d'un barème de tarifs
39(2) Avant chaque période tarifaire, la Régie demande à l'autorité de réglementation d'approuver un barème de tarifs pour la fourniture d'énergie à des clients de détail au Manitoba pendant cette période tarifaire.

Application of PUB Act
39(3) Part I of *The Public Utilities Board Act* applies, with necessary changes, with respect to an application made under this section and any order made in relation to such an application. In the event of a conflict between that Part and a provision of this Act or the regulations, the provision of this Act or regulation prevails.

Application de la *Loi sur la Régie des services publics*
39(3) La partie I de la *Loi sur la Régie des services publics* s'applique, avec les adaptations nécessaires, à toute demande faite en vertu du présent article et à toute ordonnance rendue relativement à une telle demande. Les dispositions de la présente loi ou de ses règlements d'application l'emportent sur les dispositions incompatibles de cette partie.

Regulator to approve or vary rates
39(4) Subject to subsection (5), the regulator must

(a) approve the rates as proposed; or

(b) vary the rates as the regulator considers just and reasonable and direct the corporation to file with the regulator, in accordance with the regulator's directions, an updated schedule of rates.

Rules for approving or varying rates
39(5) The following rules apply to the approval or variation of rates by the regulator:

1. The regulator must base its order or decision about rates on the revenue requirements for the rate period.

2. When reviewing the revenue requirements, the regulator must take into account and be guided by

   (a) the policies set out in section 39.1 and any related regulations made under section 39.6;

   (b) any applicable policies established by regulation under section 10.2 of *The Public Utilities Board Act*;

   (c) any directives issued to the corporation under *The Crown Corporations Governance and Accountability Act* or *The Financial Administration Act*; and

   (d) the maximum general rate increase allowed for a fiscal year determined under section 39.2.

3. The regulator may not reduce for rate-setting purposes the amount required to support the capital expenditure program approved by Treasury Board for the rate period.

Approbation ou modification des tarifs par l'autorité de réglementation
39(4) Sous réserve du paragraphe (5), l'autorité de réglementation :

a) soit approuve les tarifs proposés;

b) soit modifie ces tarifs d'une façon qu'elle juge juste et raisonnable et demande à la Régie de mettre à jour son barème de tarifs selon ses directives puis de lui remettre le barème mis à jour.

Règles d'approbation ou de modification des tarifs
39(5) Les règles qui suivent s'appliquent à l'approbation et à la modification des tarifs par l'autorité de réglementation :

1. L'autorité de réglementation fonde son ordonnance ou sa décision au sujet des tarifs sur les besoins en revenus à l'égard de la période tarifaire.

2. Lorsqu'elle révise les besoins en revenus, l'autorité de réglementation tient compte des éléments suivants :

   a) les politiques énoncées à l'article 39.1 et les règlements connexes pris en vertu de l'article 39.6;

   b) les politiques applicables établies par règlement en vertu de l'article 10.2 de la *Loi sur la Régie des services publics*;

   c) les directives données à la Régie en vertu de la *Loi sur la gouvernance et l'obligation redditionnelle des corporations de la Couronne* ou de la *Loi sur la gestion des finances publiques*;

   d) la majoration maximale du tarif général qui est permise à l'égard d'un exercice en vertu de l'article 39.2.

3. L'autorité de réglementation ne peut pas réduire, à des fins de fixation de tarifs, la somme requise pour appuyer le programme de dépenses en immobilisations qui a été approuvé par le Conseil du Trésor à l'égard de la période tarifaire.

4. Subject to the policies set out in section 39.1, the corporation may propose changes to its cost allocation method or rate design, and the regulator may approve or disallow those changes or require the corporation to make other changes to them. But the regulator may not require a change to the classification of customers for rate-setting purposes that has not been proposed or agreed to by the corporation.

5. Rates for different customers or classes of customers must not differ based on affordability or other socio-economic factors.

6. Rates within a class may differ based on the type, level or combination of services provided to the customer.

7. If the regulator directs the corporation to defer the recognition of costs or revenue, it must also specify, as part of that direction, when, or the conditions under which, the corporation may recognize those costs or that revenue.

4. Sous réserve des politiques énoncées à l'article 39.1, la Régie peut proposer des modifications à sa méthode de répartition des coûts ou à sa conception tarifaire, et l'autorité de réglementation peut approuver ou refuser ces modifications ou demander à la Régie d'y apporter d'autres modifications. Toutefois, elle ne peut pas demander une modification à la classification des clients à des fins de fixation des tarifs si cette modification n'a pas été proposée ou acceptée par la Régie.

5. Les tarifs offerts à différents clients ou à différentes catégories de clients ne peuvent varier en fonction de facteurs socioéconomiques comme les moyens financiers.

6. Les tarifs au sein d'une même catégorie peuvent varier en fonction du type, du niveau ou de la combinaison de services fournis au client.

7. Si l'autorité de réglementation, au moyen d'une directive, demande à la Régie de reporter la constatation de ses coûts ou de ses revenus, cette directive doit également informer la Régie du moment où elle pourra les constater ou des conditions lui permettant de le faire.

Separate process to review cost allocation or rate design

39(6) A review of the cost allocation method or rate design to be used in approving or varying rates for a rate period may be initiated by the regulator, or by the corporation on application to the regulator, as a separate process from the rate approval process. Rule 4 in subsection (5) applies to such a review.

Procédure distincte de révision de la méthode de répartition des coûts ou de la conception tarifaire

39(6) L'autorité de réglementation ou la Régie, sur demande adressée à l'autorité de réglementation, peut entreprendre, en tant que procédure distincte de la procédure d'approbation des tarifs, une révision de la méthode de répartition des coûts ou de la conception tarifaire devant être utilisée pour approuver ou modifier les tarifs d'une période tarifaire. La règle 4 du paragraphe (5) s'applique à une telle révision.

Restriction
39(7) Except as expressly permitted by this section, the regulator's mandate to approve or vary rates does not include the authority to issue an order or directive governing the corporation's operations or its capital management, investments or expenditures. However, at the regulator's request, the minister responsible for *The Public Utilities Board Act* may authorize the regulator to review and make recommendations about any of those matters.

Restriction
39(7) Sauf disposition contraire expresse du présent article, le mandat de l'autorité de réglementation consistant à approuver ou à modifier les tarifs ne lui donne pas le pouvoir de rendre une ordonnance ou de donner une directive pour régir les activités, la gestion du capital, les placements ou les dépenses de la Régie. Toutefois, si l'autorité de réglementation le lui demande, le ministre responsable de la *Loi sur la Régie des services publics* peut l'autoriser à étudier ces questions et à lui faire des recommandations à leur sujet.

Electricity and rates policies
39.1(1) It is hereby declared to be the policy of the government that

(a) the rates charged by the corporation to each class of grid customers in Manitoba are to be based on the revenue requirements properly allocated to that class;

(b) the rates charged to a class of grid customers in Manitoba are to be the same throughout the province;

(c) subject to section 39.2 and the regulations, the rates charged by the corporation are to provide sufficient revenue

(i) to enable the corporation to achieve the following target debt-to-capitalization ratios:

(A) 80% by March 31, 2035,

(B) 70% by March 31, 2040, and

(ii) to achieve or maintain any additional financial targets established by regulation; and

(d) subject to the policy objectives set out in clauses (a) to (c) and to the extent practicable, rates or changes in rates should be stable and predictable from year to year.

Politiques tarifaires en matière d'électricité
39.1(1) Il est par les présentes déclaré que le gouvernement du Manitoba a pour politique :

a) de veiller à ce que les tarifs facturés par la Régie à toute catégorie de clients branchés au réseau du Manitoba soient fondés sur des besoins en revenus correctement associés aux clients de cette catégorie;

b) de veiller à ce que les tarifs facturés à une catégorie de clients branchés au réseau du Manitoba soient les mêmes dans l'ensemble de la province;

c) sous réserve de l'article 39.2 et des règlements, de veiller à ce que les tarifs facturés par la Régie procurent à cette dernière un revenu suffisant :

(i) pour réaliser les objectifs qui suivent en matière de ratios d'endettement :

(A) 80 % d'ici le 31 mars 2035,

(B) 70 % d'ici le 31 mars 2040,

(ii) pour réaliser ou maintenir tout objectif financier supplémentaire qui a été fixé par règlement;

d) sous réserve des objectifs politiques énoncés aux alinéas a) à c) et dans la mesure du possible, de veiller à ce que les tarifs ou les changements de tarifs soient stables et prévisibles d'année en année.

Classification of grid customers

39.1(2) For the purpose of subsection (1),

(a) grid customers are those who obtain power from the corporation's interconnected system for transmitting and distributing power in Manitoba;

(b) customers must not be classified based on where they are located or the population density of where they are located; and

(c) all residential grid customers are to constitute a single class of customers.

Maximum general rate increase

39.2(1) Despite sections 39 and 39.1, the general rate increase for all grid customers for any fiscal year within a rate period, expressed as a percentage increase from year to year, must not exceed the lesser of 5% and the maximum determined according to the following formula and expressed as a percentage:

$$\text{Max} = (\text{CPI}_1/\text{CPI}_2) - 1$$

In this formula,

CPI_1 is the Consumer Price Index, determined in accordance with subsection (2), for the 12-month period ending on September 30 of the calendar year immediately preceding that fiscal year;

CPI_2 is the Consumer Price Index, determined in accordance with subsection (2), for the 12-month period immediately preceding the 12-month period referred to in the description of CPI_1.

Consumer Price Index and general rate increase

39.2(2) For the purpose of subsection (1),

(a) the Consumer Price Index for a 12-month period is the result arrived at by

Classification des clients branchés au réseau

39.1(2) Aux fins du paragraphe (1) :

a) les clients branchés au réseau sont ceux qui obtiennent de l'énergie du réseau d'interconnexion de la Régie qui sert au transport et à la distribution de l'énergie au Manitoba;

b) il est interdit de catégoriser les clients en fonction du lieu où ils se trouvent ou de la densité de la population de ce lieu;

c) les clients résidentiels branchés au réseau constituent une catégorie distincte de clients.

Majoration maximale du tarif général

39.2(1) Par dérogation aux articles 39 et 39.1, la majoration du tarif général à l'égard des clients branchés au réseau pour tout exercice d'une période tarifaire, exprimée sous forme d'augmentation de pourcentage d'année en année, ne peut dépasser 5 % ou, si elle est inférieure, l'augmentation maximale calculée au moyen de la formule qui suit, laquelle est exprimée sous forme de pourcentage :

$$\text{Max} = (\text{IPC}_1/\text{IPC}_2) - 1$$

Dans la présente formule :

IPC_1 représente l'indice des prix à la consommation, calculé en conformité avec le paragraphe (2), pour la période de 12 mois prenant fin le 30 septembre de l'année civile qui précède cet exercice;

IPC_2 représente l'indice des prix à la consommation, calculé en conformité avec le paragraphe (2), pour la période de 12 mois qui précède la période de 12 mois visée dans la description de l'IPC_1.

Indice des prix à la consommation et majoration du tarif général

39.2(2) Pour l'application du paragraphe (1) :

a) l'indice des prix à la consommation pour une période de 12 mois correspond au résultat du calcul suivant :

(i) aggregating the Consumer Price Index (All-items) for Manitoba, as published by Statistics Canada under the authority of the *Statistics Act* (Canada), for each month in that period,

(ii) dividing the aggregate obtained under subclause (i) by 12, and

(iii) rounding the result obtained under subclause (ii) to the nearest one-thousandth (or to the higher one if it is at the midpoint between the two nearest one-thousandths); and

(b) the general rate increase from one fiscal year to the next is the percentage determined for GRI in the following formula:

$$GRI = (R_2 - R_1)/R_1$$

In this formula,

GRI is the general rate increase expressed as a percentage;

R_1 is the projected rate revenue for the first fiscal year;

R_2 is the amount that would be the projected rate revenue for the immediately following fiscal year if

(i) the rates for the second fiscal year were the rates approved for that year, and

(ii) all other factors used to calculate the projected rate revenue were the same as in the first fiscal year.

Review and approval of adjusted rates

39.2(3) If rates are required to be adjusted for a fiscal year because of this section,

(a) the corporation must submit to the regulator, for its review and approval without an oral hearing, a revised schedule of rates such that the general rate increase does not exceed the maximum general rate increase determined by subsection (1) for that year;

(i) obtenir l'indice d'ensemble des prix à la consommation pour le Manitoba publié par Statistique Canada en conformité avec la *Loi sur la statistique* (Canada) pour chaque mois que compte la période,

(ii) diviser le total obtenu au sous-alinéa (i) par 12,

(iii) arrondir le résultat obtenu au sous-alinéa (ii) au millième près (ou au millième supérieur, s'il s'agit du point intermédiaire entre deux millièmes);

b) la majoration du tarif général, d'un exercice à l'autre, correspond au pourcentage calculé pour la MTG dans la formule suivante :

$$MTG = (R_2 - R_1)/R_1$$

Dans la présente formule :

MTG représente la majoration du tarif général exprimée sous forme de pourcentage;

R_1 représente le revenu tarifaire projeté pour le premier exercice;

R_2 représente la somme correspondant au revenu tarifaire projeté pour l'exercice suivant si les conditions ci-après sont réunies :

(i) les tarifs du deuxième exercice étaient les tarifs approuvés pour cet exercice,

(ii) les autres facteurs utilisés pour calculer le revenu tarifaire projeté étaient les mêmes qu'au cours du premier exercice.

Révision et approbation des tarifs ajustés

39.2(3) S'il est nécessaire d'ajuster les tarifs d'un exercice en raison du présent article :

a) la Régie soumet à l'autorité de réglementation, afin qu'elle le révise et l'approuve sans audience orale, un barème de tarifs révisé de manière à ce que la majoration du tarif général ne dépasse pas la majoration maximale calculée au paragraphe (1) pour cet exercice;

(b) the regulator must approve the revised rate schedule or require the corporation to revise it, but only to the extent necessary to ensure that the general rate increase does not exceed the maximum general rate increase for the fiscal year; and

(c) the regulator must publish the final approved schedule of rates on its website.

b) l'autorité de réglementation approuve le barème tel que révisé ou demande à la Régie de le réviser, mais uniquement dans la mesure nécessaire pour que la majoration du tarif général ne dépasse pas la majoration maximale pour l'exercice;

c) l'autorité de réglementation publie le barème approuvé et définitif sur son site Web.

Interpretation
39.2(4) For greater certainty, this section does not establish a maximum rate increase for any specific class of customers. Even if a percentage rate increase for any class of customers exceeds the percentage determined under subsection (1), this section does not require a rate adjustment unless the general rate increase for a fiscal year exceeds the percentage determined under that subsection.

Interprétation
39.2(4) Il est entendu que le présent article n'établit pas une majoration tarifaire maximale pour certaines catégories de clients. Même si une majoration tarifaire sous forme de pourcentage pour toute catégorie de clients dépasse le pourcentage calculé au paragraphe (1), le présent article n'impose pas d'ajustement tarifaire à moins que la majoration du tarif général d'un exercice dépasse le pourcentage calculé à ce paragraphe.

Annual reporting
39.3 Within five months after the end of each fiscal year that falls within a rate period, the corporation must file with the minister and the regulator a report consisting of

(a) a copy of the corporation's audited financial statements for that fiscal year and a copy of its budget for the current fiscal year;

(b) a comparison of its actual results for that prior fiscal year with the projections shown for that year in the financial forecast relied upon by the regulator when setting or approving rates for that year;

(c) the most recent financial forecast approved by the board; and

(d) any additional documents required by the minister responsible for *The Public Utilities Board Act* on the recommendation of the regulator.

Rapport annuel
39.3 Dans les cinq mois qui suivent la fin de tout exercice d'une période tarifaire, la Régie dépose auprès du ministre et de l'autorité de réglementation un rapport qui se compose des documents suivants :

a) une copie des états financiers vérifiés de la Régie pour cet exercice et une copie de son budget pour l'exercice en cours;

b) une comparaison entre ses résultats réels pour cet exercice précédent et les projections pour cet exercice dans les prévisions financières auxquelles se fie l'autorité de réglementation lorsqu'elle fixe ou approuve les tarifs à l'égard de cet exercice;

c) les plus récentes prévisions financières approuvées par la Régie;

d) tout autre document que demande le ministre responsable de la *Loi sur la Régie des services publics* sur recommandation de l'autorité de réglementation.

Reconsideration of approved rates
39.4(1) If during a rate period there is a material difference between the corporation's actual or projected financial results, determined on a cumulative basis since the beginning of that period, and the financial results projected for that period in the rate application for that period,

(a) the corporation, with the approval of the Lieutenant Governor in Council, may apply to the regulator; or

(b) the regulator, with the approval of the Lieutenant Governor in Council, may require the corporation to apply to the regulator;

for a reconsideration and adjustment of the approved rates for the remainder of the rate period. In the order approving the reconsideration, the Lieutenant Governor in Council may expand or restrict the scope of the review.

Réexamen des tarifs approuvés
39.4(1) Si, pendant une période tarifaire, il y a une différence importante entre le bilan financier réel ou projeté de la Régie, déterminé de façon cumulative depuis le début de cette période, et le bilan financier projeté à l'égard de cette même période dans la demande d'approbation des tarifs à l'égard de cette période, la Régie, avec l'approbation du lieutenant-gouverneur en conseil, peut demander à l'autorité de réglementation de réexaminer et d'ajuster les tarifs approuvés à l'égard du reste de la période tarifaire ou, toujours avec l'approbation du lieutenant-gouverneur en conseil, l'autorité de réglementation peut obliger la Régie à lui demander d'effectuer ce réexamen et cet ajustement. Dans le décret approuvant le réexamen, le lieutenant-gouverneur en conseil peut étendre ou restreindre la portée de la révision.

Adjustment of approved rates
39.4(2) After reconsidering the approved rates and the updated financial forecasts, the regulator may approve or require an adjustment to those rates for the remainder of the period for which the rates were previously approved.

Ajustement des tarifs approuvés
39.4(2) Après avoir réexaminé les tarifs approuvés et les prévisions financières mises à jour, l'autorité de réglementation peut approuver ces tarifs ou demander qu'ils soient ajustés pour le reste de la période à l'égard de laquelle ils avaient été approuvés précédemment.

Sections 39 and 39.1 apply to reconsideration
39.4(3) Sections 39 and 39.1 apply, with necessary changes, to a reconsideration and adjustment of the approved rates under this section.

Application des articles 39 et 39.1 au réexamen
39.4(3) Les articles 39 et 39.1 s'appliquent, avec les adaptations nécessaires, au réexamen et à l'ajustement des tarifs approuvés en vertu du présent article.

Change to classification or rate design within rate period
39.5(1) With the approval of the Lieutenant Governor in Council, the corporation may apply to the regulator for approval of a change in rates resulting from a change in customer classification, or a change in rate design, to take effect before the end of a rate period.

Modifications apportées à la classification ou à la conception tarifaire au cours des périodes tarifaires
39.5(1) Avec l'approbation du lieutenant-gouverneur en conseil, la Régie peut demander à l'autorité de réglementation d'approuver la prise d'effet, avant la fin d'une période tarifaire, d'une modification apportée à la conception tarifaire ou d'une modification des tarifs résultant d'une modification apportée à la classification des clients.

Sections 39 and 39.1 apply
39.5(2) Sections 39 and 39.1 apply, with necessary changes, to the regulator's review and approval of an application under this section.

Regulations
39.6 The Lieutenant Governor in Council may make regulations respecting the framework established by sections 39 to 39.5 for approving, setting or varying rates, including regulations

(a) respecting the manner in which the corporation's debt-to-capitalization ratio is to be determined;

(b) respecting the time frame or manner in which the corporation is to achieve its target debt-to-capitalization ratios;

(c) establishing other financial targets for the corporation and respecting how they are to be achieved or maintained;

(d) modifying a target debt-to-capitalization ratio, or the target date for achieving it, in response to unforeseen or extenuating circumstances;

(e) defining any term that is used but not defined for the purposes of those sections;

(f) respecting any transitional or other matter the Lieutenant Governor in Council considers necessary or advisable for the purposes of those sections.

14 The centred heading before section 40 and section 40 are repealed.

15 The centred heading before section 41 and section 41 are repealed.

Application des articles 39 et 39.1
39.5(2) Les articles 39 et 39.1 s'appliquent, avec les adaptations nécessaires, à la révision et à l'approbation par l'autorité de réglementation d'une demande faite en vertu du présent article.

Règlements
39.6 Le lieutenant-gouverneur en conseil peut, par règlement, prendre des mesures concernant le cadre établi par les articles 39 à 39.5 à l'égard de l'approbation, de la fixation ou de la modification des tarifs, et notamment :

a) prendre des mesures concernant le mode de calcul du ratio d'endettement de la Régie;

b) prendre des mesures concernant l'échéancier ou le mode de réalisation de l'objectif de la Régie à l'égard de ses ratios d'endettement;

c) établir d'autres objectifs financiers pour la Régie et prendre des mesures quant à la façon de les réaliser ou de les maintenir;

d) modifier des objectifs à l'égard du ratio d'endettement ou la date limite de réalisation de ces objectifs, en réaction à des circonstances imprévues ou atténuantes;

e) définir tout terme utilisé mais non défini pour l'application de ces articles;

f) prendre des mesures concernant toute question transitoire ou autre que le lieutenant-gouverneur en conseil juge nécessaire ou utile pour l'application de ces articles.

14 L'intertitre qui précède l'article 40 est supprimé et l'article 40 est abrogé.

15 L'intertitre qui précède l'article 41 est supprimé et l'article 41 est abrogé.

64(6) Subsection 26(1) is amended by striking out "A corporation" *and substituting* "The corporation".

64(6) Le paragraphe 26(1) est modifié par substitution, à « Une corporation »*, de* « La corporation ».

64(7) Subsection 26(2) is amended by striking out "No corporation shall" *and substituting* "The corporation must not".

64(7) Le paragraphe 26(2) est modifié par substitution, à « Les corporations ne peuvent augmenter les tarifs afférents aux services qu'elles fournissent d'une somme qui, au cours d'une année, excède celle que la Régie des services publics a approuvé pour cette année. Elles ne peuvent »*, de* « La corporation ne peut augmenter les tarifs afférents aux services qu'elle fournit d'une somme qui, au cours d'une année, excède celle que la Régie des services publics a approuvée pour cette année. Elle ne peut ».

64(8) Subsection 26(3) is amended by striking out "a corporation" *and substituting* "the corporation".

64(8) Le paragraphe 26(3) est modifié par substitution, à « d'une corporation »*, de* « de la corporation ».

Transitional

65 Despite Part 1 and sections 23 and 64 of this Act, the following Acts or provisions, as they read immediately before the enactment of this Act, continue to apply to the determination of rates for the retail supply of power under ***The Manitoba Hydro Act*** *for any period ending before April 1, 2025:*

(a) Part 4 of ***The Crown Corporations Governance and Accountability Act****;*

(b) ***The Manitoba Hydro Act****;*

(c) section 2 of ***The Public Utilities Board Act****.*

Disposition transitoire

65 Par dérogation à la partie 1 et aux articles 23 et 64 de la présente loi, les lois ou dispositions qui suivent, telles qu'elles étaient libellées juste avant l'édiction de la présente loi, continuent de s'appliquer à la fixation des tarifs de fourniture d'énergie au détail prévue par la ***Loi sur l'Hydro-Manitoba*** *pour toute période prenant fin avant le 1er avril 2025 :*

a) la partie 4 de la ***Loi sur la gouvernance et l'obligation redditionnelle des corporations de la Couronne****;*

b) la ***Loi sur l'Hydro-Manitoba****;*

c) l'article 2 de la ***Loi sur la Régie des services publics****.*

Coming into force — royal assent

66(1) Except as otherwise provided in this section, this Act comes into force on the day it receives royal assent.

Entrée en vigueur — sanction

66(1) Sauf disposition contraire du présent article, la présente loi entre en vigueur le jour de sa sanction.

REFERENCE:

PUB/MH 1-23 (b), Coalition /MH 1-49

PREAMBLE TO IR (IF ANY):

The new legislative framework coming into effect under The Manitoba Hydro Amendment and Public Utilities Board Amendment Act establishes new debt ratio targets for Manitoba Hydro effective April 1, 2025, replacing the utility's long-standing 75% target. Rates charged by Manitoba Hydro are to provide sufficient revenues to enable the corporation to achieve debt ratios of 80% by March 31, 2035, and 70% by March 31, 2040, and any additional financial targets established by regulations.

QUESTION:

a) Please comment on how much of the reduction in payments to government has been directed to debt retirement/repayment versus customer rate relief based on the December 9th Application Update.
b) Please file the potential debt retirement analysis based on the original November 15 application's annual rate requests, reflecting the December 9th reduction in payments to the government and comment on the potential total debt retirement relative to the Amended Financial Forecast.
c) Please file a full financial forecast scenario including operating statement, balance sheet, cash flow statement, and summary of key financial measures reflecting the scenario in (b) and comment on the dates of achievement of Manitoba Hydro's debt ratio targets.
d) Please file the potential debt retirement analysis based on the requested rate increase in the original rate application for the test years and reflects the December 9th reduction in payment to the government, which adjusts the forecasted future rate increases to maintain the debt ratio targets once attained and comment on the potential total debt retirement relative to the Amended Financial Forecast.
e) Please file a full financial forecast, including operating statement, balance sheet, cash flow statement, and summary of key financial measures reflecting the scenario in (d) and comment on the dates of achievement of its debt ratio targets.

f) Please file the potential debt retirement analysis and full financial forecast scenario, including operating statement, balance sheet, cash flow statement, and summary of key financial measures similar to parts (d) and (e) reflecting a 3% rate increase in 2023/24 and 3% in 2024/25, which adjusts the forecasted future rate increases to maintain the debt ratio targets once attained and comment on the potential total debt retirement and the achievement of financial targets.

g) Please file comparative line graphs of the Debt Ratio, EBITDA Interest Coverage Ratio, Capital Coverage Ratio, Cash Flow Surplus /Deficit, Self Financing Ratio, and Cash Flow to Net Debt for the original Application, Amended Application, and the financial forecast scenarios in (c), (e), and (f). Include the table of supporting data points.

RESPONSE:

a) As indicated in Appendix 4.1.1, aside from timing differences, the Amended Financial Forecast Scenario and the initial November 15, 2022 application are projected to result in very similar financial positions by the end of the 20-year planning horizon. As shown in Figure 15 on page 9 of 10 in Appendix 4.1.1, the 20-year net cash surplus in both scenarios are almost identical. When comparing the two scenarios over the 20-year forecast period, the $3.67 billion of combined reductions to net finance expense and water rentals due to government fee reductions are largely matched by a $3.80 billion reduction to additional rate revenue by adjusting to the 2.0% rate path.

By reducing the debt guarantee and water rental fees, the government has reduced Manitoba Hydro's revenue requirement, and associated cash requirements by $3.67 billion over the 20-year planning horizon. This reduction in expenses, and associated cash requirements, exists irrespective of the rate path.

The full effect of the reduction in payments to government was outlined on page 9 of Tab 3 (Amended) of Manitoba Hydro's Application, where an analysis of the savings generated from the reduced payments to government under a consistent 2% rate path was provided. This analysis shows that if a 2% rate path is assumed both with and without the reduced payments to government, in addition to the almost $4 billion in savings associated with the reduced payments to government a further $2 billion in finance expense is avoided as a result of the reduced payments to government. A consistent 2% rate path is applied in this analysis in order to isolate the impact of the reduced payments to government. With savings on expenses of nearly $6 billion, Manitoba Hydro will either retire debt or forego issuing new debt in line with the decreased cash requirement.

b) Under this scenario, the rate path is unchanged from the initial November 15, 2022 application and the utility collects $3.8 billion of additional rate revenue over the 20 year forecast related to the difference between the 3.5% and 2.0% rate paths. As a result, the cash potentially available for debt retirement exceeds the cash available under the Amended Financial Forecast Scenario with the additional debt retirement resulting in a further savings to finance expense of $1.6 billion. Compared to the Amended Financial Forecast Scenario, this scenario results in $5.4 billion of additional cumulative net income and an additional $5.4 billion in cumulative net cash surplus over the 20-year forecast period. The 80% debt ratio target is achieved by March 31, 2027 and the 70% debt ratio target is achieved prior to March 31, 2034.

Manitoba Hydro does not regard this scenario as potentially viable considering the new legislative framework coming into effect under *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act.* The level of annual rate increases in this scenario exceeds Manitoba Hydro's forecast level of Manitoba inflation.

Please see the following table which shows the consolidated potential debt retirement analysis for this scenario.

PUB-MH II-8 b)

MANITOBA HYDRO
Consolidated Debt Maturities (Action Date) at September 30, 2022
Forecast Borrowing, Change in Cash and Cash from Operations
Less Cash Used for Investing
(in $ billions Canadian Dollars)

November 15th Application Rate Path & Reduced Govt Payments Scenario	Long Term Debt Maturities	Forecast Refinancing & New Borrowing	Cash Drawdown/ (Increase)	Potential Debt Retirement/ (Cash Requirement)
2022/23	$1.1	$0.8	($0.0)	$0.3
2023/24	$1.4	$0.4	$0.6	$0.5
2024/25	$0.9	$0.8	($0.1)	$0.2
2025/26	$1.2	$0.8	$0.1	$0.1
2026/27	$1.2	$1.0	$0.0	$0.2
2027/28	$1.4	$1.4	($0.2)	$0.1
2028/29	$1.7	$1.2	$0.1	$0.2
2029/30	$0.7	$0.4	$0.1	$0.2
2030/31	$1.1	$0.6	$0.2	$0.3
2031/32	$0.7	$0.6	($0.4)	$0.5
2032/33	$0.0	$0.0	($0.5)	$0.5
2033/34	$0.0	$0.0	($0.6)	$0.6
2034/35	$0.1	$0.0	($0.6)	$0.6
2035/36	$0.0	$0.0	($0.2)	$0.5
2036/37	$0.3	$0.0	($0.2)	$0.4
2037/38	$0.4	$0.0	($0.1)	$0.5
2038/39	$0.1	$0.0	($0.1)	$0.6
2039/40	$0.4	$0.0	($0.1)	$0.5
2040/41	$0.4	$0.0	($0.2)	$0.6
2041/42	$0.5	$0.0	($0.2)	$0.7
Total	$13.6	$8.0	($2.6)	$8.1

c) Please see the electric segment projected financial statements for the scenario requested in PUB/MH II-8b below. Under this rate scenario, the 80% debt ratio target is achieved by March 31, 2027 and the 70% debt ratio target is achieved prior to March 31, 2034.

Manitoba Hydro

Manitoba Hydro 2023/24 & 2024/25 General Rate Application
PUB/MH II-8a-g

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II 8b - Amended Financial Forecast Scenario with 3.5% Rate Path
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	41	131	201	274	352	433	519	611	711
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 070	2 976	2 873	2 957	3 025	3 114	3 227	3 361	3 489
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	885	900	907	913	913	914	905	862
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	167	169	170	172	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 694	2 743	2 769	2 814	2 855	2 890	2 927	2 908
Net Income before Net Movement in Reg. Deferral	565	386	282	131	189	211	259	337	434	581
Net Movement in Regulatory Deferral	190	106	77	118	114	62	57	50	4	(12)
Net Income	755	492	359	249	302	274	316	387	438	569
Net Income Attributable to:										
Manitoba Hydro	**751**	**487**	**353**	**242**	**295**	**267**	**309**	**379**	**429**	**560**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	492	359	249	302	274	316	387	438	569
Percent Increase	0.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Cumulative Percent Increase	0.00%	3.50%	7.12%	10.87%	14.75%	18.77%	22.93%	27.23%	31.68%	36.29%

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II 8b - Amended Financial Forecast Scenario with 3.5% Rate Path
(In Millions of Dollars)

For the year ended March 31	**2032/33**	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	819	850	884	923	965	1 008	1 053	1 099	1 147	1 194
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 624	3 707	3 808	3 829	3 922	4 043	4 129	4 203	4 292	4 376
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	850	833	818	791	768	749	727	696	674	654
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	181	182	185	188	190	192	195	197	199
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	2 950	3 006	3 056	3 116	3 192	3 303	3 363	3 385	3 459	3 519
Net Income before Net Movement in Reg. Deferral	674	701	752	714	731	740	766	819	833	856
Net Movement in Regulatory Deferral	(15)	(21)	(26)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	659	680	725	681	693	698	726	779	811	833
Net Income Attributable to:										
Manitoba Hydro	**649**	**669**	**713**	**669**	**680**	**686**	**710**	**762**	**793**	**813**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	659	680	725	681	693	698	726	779	811	833
Percent Increase	3.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Cumulative Percent Increase	41.06%	41.77%	42.47%	43.19%	43.90%	44.62%	45.34%	46.07%	46.80%	47.54%

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH II 8b - Amended Financial Forecast Scenario with 3.5% Rate Path
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36 672	37 680	38 768	39 910	41 171	42 495	43 923	45 182	46 564	48 003
Accumulated Depreciation	(9 818)	(10 579)	(11 346)	(12 134)	(12 963)	(13 841)	(14 753)	(15 690)	(16 642)	(17 650)
Net Plant in Service	26 853	27 101	27 422	27 776	28 208	28 655	29 170	29 491	29 922	30 354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	2 448	3 018	3 573	3 794	3 988	4 095	4 213	4 331	4 518	4 723
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	30 410	31 205	32 058	32 716	33 571	34 005	34 481	35 180	35 667	36 118
Regulatory Deferral Balance	1 783	1 763	1 736	1 704	1 666	1 625	1 585	1 546	1 523	1 499
	32 193	32 968	33 795	34 419	35 237	35 629	36 065	36 726	37 191	37 617
LIABILITIES AND EQUITY										
Long-Term Debt	21 132	21 056	20 743	20 586	20 202	19 716	19 380	18 928	18 442	17 824
Current and Other Liabilities	2 749	2 857	3 131	3 049	3 290	3 451	3 394	3 534	3 659	3 855
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1 113	1 189	1 342	1 538	1 821	1 853	1 973	2 184	2 218	2 254
Retained Earnings	7 544	8 213	8 926	9 594	10 275	10 961	11 671	12 433	13 226	14 039
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	32 193	32 968	33 795	34 419	35 237	35 629	36 065	36 726	37 191	37 617
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	32 193	32 968	33 795	34 419	35 237	35 629	36 065	36 726	37 191	37 617

REFERENCE:

PUB/MH 1-24(b)

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please refile the finance expense schedule based on retaining the originally proposed rate increases from the initial application and reflecting the December 9th reduction in payment to the government and provide comparisons and comment on the impact relative to the original application and with the amended financial forecast based on 2% annual rate increases.
b) Please provide a similar analysis to (a) where the future financial forecast rate increases are adjusted to maintain the Corporation's financial targets when maintained. Please comment on the total interest savings over the forecast.
c) Please provide a similar analysis to (a) with a 3% rate increase in 2023/24 and 3% in 2024/25, which adjusts the forecasted future rate increases to maintain the financial targets once attained. Please comment on the total interest savings over the forecast.
d) Please provide a comparative bar graph of the total annual interest savings of the revised application and the scenarios.

RESPONSE:

a) Under this scenario, the rate path is unchanged from the November 15, 2022 filing and reflects the December 9th reduction in payments to the government. Over the 20-year planning horizon, the direct savings from the reduction of the payments to government total $3.7 billion relative to the Financial Forecast Scenario. With the additional debt retirement ($5.5 billion), over the 20-year planning horizon, the net impact of these savings results in lower net debt and a reduction to Electric net finance expense of $4.1 billion including $1.4 billion in lower interest expense, $2.5 billion less in provincial guarantee fee and $0.2 billion more in finance income over the 20-year forecast period.

Relative to the Amended Financial Forecast Scenario, under this scenario, the utility collects $3.8 billion of additional rate revenue over the 20-year forecast related to the difference between the rate paths. As a result, the increased cash flow provides for additional debt retirement ($5.4 billion as outlined in PUB/MH II-8b) resulting in a savings to Electric net finance expense of $1.6 billion including $1.1 billion in lower interest expense, $0.2 billion less in provincial guarantee fee and $0.3 billion more in finance income over the 20-year forecast period.

MANITOBA HYDRO
Electric Operations
Summary of Net Finance Expense
Originally Proposed Rate Increases and Reduction in Payments to Government
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	863	835	835	830	828	839	853	850	840	798
Provincial Guarantee Fee	116	115	112	111	111	110	110	109	108	107
Amortization of (Premiums), Discounts, and Transaction Costs	(6)	(3)	(1)	1	2	-	(2)	(1)	1	2
Intercompany Interest Receivable	(20)	(23)	(24)	(25)	(28)	(29)	(30)	(31)	(31)	(32)
Total Interest on Short & Long Term Debt	**953**	**924**	**922**	**917**	**913**	**920**	**931**	**927**	**918**	**875**
Interest Allocated to Construction	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**	**(18)**	**(18)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	4	(1)	(17)	(1)	6	5	2	-	-	-
Revaluation of Dual Currency Bonds	2	2	2	1	-	-	-	-	-	-
Corporate Allocation	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(14)	(12)	(12)
Other Amortization	37	37	36	36	35	34	33	33	32	31
Total Finance Expense	**960**	**925**	**905**	**919**	**922**	**929**	**932**	**929**	**920**	**876**
Finance Income	**(51)**	**(24)**	**(21)**	**(18)**	**(16)**	**(16)**	**(18)**	**(15)**	**(16)**	**(15)**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	797	787	782	771	767	753	730	715	702	683	
Provincial Guarantee Fee	105	103	103	99	97	95	92	90	87	84	
Amortization of (Premiums), Discounts, and Transaction Costs	2	3	3	3	3	3	3	3	2	2	
Intercompany Interest Receivable	(32)	(32)	(33)	(33)	(33)	(32)	(33)	(33)	(32)	(32)	
Total Interest on Short & Long Term Debt	**872**	**861**	**855**	**840**	**834**	**819**	**792**	**775**	**759**	**737**	
Interest Allocated to Construction	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**	
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	
Other Amortization	31	30	30	30	29	29	29	29	29	29	
Total Finance Expense	**873**	**860**	**854**	**837**	**821**	**807**	**785**	**760**	**745**	**729**	**17,288**
Finance Income	**(23)**	**(26)**	**(36)**	**(45)**	**(53)**	**(57)**	**(59)**	**(64)**	**(70)**	**(74)**	**(717)**
Net Finance Expense											**16,571**

MANITOBA HYDRO
Electric Operations
Summary of Net Finance Expense
Originally Proposed Rate Increases and Reduction in Payment to Government Less Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	(2)	(11)	(11)	(22)	(37)	(42)	(48)	(56)	(72)	(80)
Provincial Guarantee Fee	(116)	(114)	(116)	(117)	(118)	(119)	(120)	(123)	(124)	(124)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	1	-	-	1	1	2	1
Total Interest on Short & Long Term Debt	**(118)**	**(125)**	**(127)**	**(138)**	**(155)**	**(161)**	**(167)**	**(178)**	**(194)**	**(203)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	1	1	1	1	1	1	1	1	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(117)**	**(124)**	**(126)**	**(137)**	**(154)**	**(160)**	**(166)**	**(177)**	**(194)**	**(203)**
Finance Income	**2**	**2**	**(3)**	**0**	**5**	**4**	**1**	**1**	**5**	**5**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(83)	(91)	(100)	(100)	(100)	(101)	(101)	(109)	(110)	(118)	(1,394)
Provincial Guarantee Fee	(125)	(125)	(132)	(130)	(131)	(132)	(133)	(133)	(134)	(134)	(2,500)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	
Intercompany Interest Receivable	2	2	2	2	3	4	3	4	5	5	38
Total Interest on Short & Long Term Debt	**(206)**	**(214)**	**(230)**	**(228)**	**(228)**	**(229)**	**(231)**	**(238)**	**(239)**	**(247)**	**(3,856)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	8
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(206)**	**(214)**	**(230)**	**(228)**	**(228)**	**(229)**	**(231)**	**(238)**	**(239)**	**(247)**	**(3,848)**
Finance Income	**0**	**(3)**	**(6)**	**(12)**	**(20)**	**(28)**	**(36)**	**(39)**	**(47)**	**(51)**	**(219)**
Net Finance Expense											**(4,067)**

MANITOBA HYDRO
Electric Operations
Summary of Net Finance Expense
Originally Proposed Rate Increases and Reduction in Payment to Government Less Amended Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	-	-	-	(6)	(8)	(10)	(18)	(28)	(38)	(55)
Provincial Guarantee Fee	-	-	-	(1)	(1)	(2)	(2)	(4)	(5)	(6)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**-**	**-**	**-**	**(7)**	**(9)**	**(12)**	**(20)**	**(32)**	**(43)**	**(61)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**-**	**-**	**-**	**(7)**	**(9)**	**(12)**	**(20)**	**(32)**	**(43)**	**(61)**
Finance Income	**-**	**(0)**	**(1)**	**1**	**(0)**	**(2)**	**(2)**	**(2)**	**(2)**	**0**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(65)	(77)	(85)	(85)	(84)	(92)	(104)	(115)	(115)	(120)	(1,105)
Provincial Guarantee Fee	(8)	(10)	(12)	(15)	(17)	(19)	(21)	(22)	(24)	(26)	(195)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**(73)**	**(87)**	**(97)**	**(100)**	**(101)**	**(111)**	**(125)**	**(137)**	**(139)**	**(146)**	**(1,300)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(73)**	**(87)**	**(97)**	**(100)**	**(101)**	**(111)**	**(125)**	**(137)**	**(139)**	**(146)**	**(1,300)**
Finance Income	**(4)**	**(7)**	**(14)**	**(24)**	**(34)**	**(39)**	**(41)**	**(42)**	**(49)**	**(53)**	**(316)**
Net Finance Expense											**(1,616)**

b) Under this scenario, the rate path is 3.5% for 2024 and 2025 and then 1.55% thereafter and reflects the December 9th reduction in payments to the government. Over the 20-year planning horizon, the direct savings from the reduction of the payments to government total $3.5 billion relative to the Financial Forecast Scenario. With the earlier debt retirement, over the 20-year planning horizon, despite higher net debt ($0.4 billion) at the end of the forecast period, the net impact of these savings results in a reduction to Electric net finance expense of $2.6 billion including $0.4 billion in lower interest expense,

$2.3 billion less in provincial guarantee fee and $0.1 billion less finance income over the 20-year forecast period.

Relative to the Amended Financial Forecast Scenario, under this scenario, the utility collects $0.6 billion less rate revenue over the 20-year forecast related to the difference between the rate paths. However, the larger upfront rate increases allow for earlier debt retirement and savings to Electric net finance expense of $0.1 billion predominantly due to lower net debt in the first 15 years of the 20-year forecast period. As a result, of the timing and amount of rate increases, net debt at the end of the 20 year forecast period is higher by $0.5 billion as outlined in PUB/MH II-8 d).

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3.5% Rate Increase in 2024 and 2025 and 1.55% Thereafter & Reduced Govt Payments Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	863	835	835	830	834	842	863	869	868	841
Provincial Guarantee Fee	116	115	112	111	111	111	111	111	112	112
Amortization of (Premiums), Discounts, and Transaction Costs	(6)	(3)	(1)	1	2	-	(2)	(1)	1	2
Intercompany Interest Receivable	(20)	(23)	(24)	(25)	(28)	(29)	(30)	(31)	(31)	(32)
Total Interest on Short & Long Term Debt	**953**	**924**	**922**	**917**	**919**	**924**	**942**	**948**	**950**	**923**
Interest Allocated to Construction	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**	**(18)**	**(18)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	4	(1)	(17)	(1)	6	5	2	-	-	-
Revaluation of Dual Currency Bonds	2	2	2	1	-	-	-	-	-	-
Corporate Allocation	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(14)	(12)	(12)
Other Amortization	37	37	36	36	35	34	33	33	32	31
Total Finance Expense	**960**	**925**	**905**	**919**	**928**	**933**	**943**	**950**	**952**	**924**
Finance Income	**(51)**	**(24)**	**(21)**	**(18)**	**(18)**	**(15)**	**(17)**	**(15)**	**(14)**	**(15)**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	850	854	859	848	844	842	833	830	824	815	
Provincial Guarantee Fee	112	112	114	112	113	113	113	113	112	111	
Amortization of (Premiums), Discounts, and Transaction Costs	2	3	3	3	3	3	3	3	2	2	
Intercompany Interest Receivable	(32)	(32)	(33)	(33)	(33)	(32)	(33)	(33)	(32)	(32)	
Total Interest on Short & Long Term Debt	**932**	**937**	**943**	**930**	**927**	**926**	**916**	**913**	**906**	**896**	
Interest Allocated to Construction	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**	
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	
Other Amortization	31	30	30	30	29	29	29	29	29	29	
Total Finance Expense	**933**	**936**	**942**	**927**	**914**	**914**	**909**	**898**	**892**	**888**	**18,492**
Finance Income	**(19)**	**(20)**	**(24)**	**(22)**	**(18)**	**(19)**	**(18)**	**(20)**	**(20)**	**(19)**	**(406)**
Net Finance Expense											**18,086**

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3.5% Rate Increase in 2024 and 2025 and 1.55% Thereafter & Reduced Govt Payments Scenario less Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	(2)	(11)	(11)	(22)	(31)	(39)	(38)	(37)	(44)	(37)
Provincial Guarantee Fee	(116)	(114)	(116)	(117)	(118)	(118)	(119)	(121)	(120)	(119)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	1	-	-	1	1	2	1
Total Interest on Short & Long Term Debt	**(118)**	**(125)**	**(127)**	**(138)**	**(149)**	**(157)**	**(156)**	**(157)**	**(162)**	**(155)**
Interest Allocated to Construction	-	-	-	-	-	-	-	-	-	-
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	1	1	1	1	1	1	1	1	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(117)**	**(124)**	**(126)**	**(137)**	**(148)**	**(156)**	**(155)**	**(156)**	**(162)**	**(155)**
Finance Income	**2**	**2**	**(3)**	**0**	**4**	**5**	**2**	**2**	**7**	**5**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(30)	(24)	(23)	(23)	(23)	(12)	2	6	12	14	(373)
Provincial Guarantee Fee	(118)	(116)	(121)	(117)	(115)	(114)	(112)	(110)	(109)	(107)	(2,317)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	2	2	2	2	3	4	3	4	5	5	38
Total Interest on Short & Long Term Debt	**(146)**	**(138)**	**(142)**	**(138)**	**(135)**	**(122)**	**(107)**	**(100)**	**(92)**	**(88)**	**(2,652)**
Interest Allocated to Construction	-	-	-	-	-	-	-	-	-	-	-
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	8
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(146)**	**(138)**	**(142)**	**(138)**	**(135)**	**(122)**	**(107)**	**(100)**	**(92)**	**(88)**	**(2,644)**
Finance Income	**4**	**3**	**6**	**11**	**15**	**11**	**5**	**5**	**3**	**4**	**93**
Net Finance Expense											**(2,551)**

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3.5% Rate Increase in 2024 and 2025 and 1.55% Thereafter & Reduced Govt Payments Scenario less Amended Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	-	-	-	(6)	(2)	(7)	(8)	(9)	(10)	(12)
Provincial Guarantee Fee	-	-	-	(1)	(1)	(1)	(1)	(2)	(1)	(1)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**-**	**-**	**-**	**(7)**	**(3)**	**(8)**	**(9)**	**(11)**	**(11)**	**(13)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**-**	**-**	**-**	**(7)**	**(3)**	**(8)**	**(9)**	**(11)**	**(11)**	**(13)**
Finance Income	**-**	**(0)**	**(1)**	**1**	**(2)**	**(0)**	**(1)**	**(1)**	**(0)**	**0**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(12)	(10)	(8)	(8)	(7)	(3)	(1)	-	7	12	(84)
Provincial Guarantee Fee	(1)	(1)	(1)	(2)	(1)	(1)	-	1	1	1	(12)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**(13)**	**(11)**	**(9)**	**(10)**	**(8)**	**(4)**	**(1)**	**1**	**8**	**13**	**(96)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(13)**	**(11)**	**(9)**	**(10)**	**(8)**	**(4)**	**(1)**	**1**	**8**	**13**	**(96)**
Finance Income	**0**	**(0)**	**(2)**	**(1)**	**0**	**(1)**	**(0)**	**2**	**0**	**1**	**(4)**
Net Finance Expense											**(100)**

c) Under this scenario, the rate path is 3.0% for 2024 and 2025 and then 1.69% thereafter and reflects the December 9th reduction in payments to the government. Over the 20-year planning horizon, the direct savings from the reduction of the payments to government total $3.5 billion relative to the Financial Forecast Scenario. With the earlier debt retirement, over the 20-year planning horizon, despite higher net debt ($0.3 billion) at the end of the forecast period, the net impact of these savings results in reduction to Electric net finance expense of $2.5 billion including $0.3 billion in lower interest expense,

$2.3 billion less in provincial guarantee fee and $0.1 billion less finance income over the 20-year forecast period.

Relative to the Amended Financial Forecast Scenario, under this scenario, the utility collects $0.4 billion less rate revenue over the 20-year forecast related to the difference between the rate paths. However, the larger upfront rate increases allow for earlier debt retirement and savings to Electric net finance expense of $0.1 billion predominantly due to lower net debt in the first 15 years of the 20-year forecast period. As a result of the timing and amount of the rate increases, net debt at the end of the 20 year forecast period is higher by $0.4 billion as outlined in PUB/MH II-8f).

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3% Rate Increase in 2024 and 2025 and 1.69% Thereafter & Reduced Govt Payments Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	863	835	835	832	834	846	866	873	872	846
Provincial Guarantee Fee	116	115	112	111	112	111	112	112	112	112
Amortization of (Premiums), Discounts, and Transaction Costs	(6)	(3)	(1)	1	2	-	(2)	(1)	1	2
Intercompany Interest Receivable	(20)	(23)	(24)	(25)	(28)	(29)	(30)	(31)	(31)	(32)
Total Interest on Short & Long Term Debt	**953**	**924**	**922**	**919**	**920**	**928**	**946**	**953**	**954**	**928**
Interest Allocated to Construction	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**	**(18)**	**(18)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	4	(1)	(17)	(1)	6	5	2	-	-	-
Revaluation of Dual Currency Bonds	2	2	2	1	-	-	-	-	-	-
Corporate Allocation	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(14)	(12)	(12)
Other Amortization	37	37	36	36	35	34	33	33	32	31
Total Finance Expense	**960**	**925**	**905**	**921**	**929**	**937**	**947**	**955**	**956**	**929**
Finance Income	**(51)**	**(24)**	**(21)**	**(18)**	**(17)**	**(16)**	**(17)**	**(15)**	**(14)**	**(15)**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	855	857	859	848	847	842	834	831	825	815	
Provincial Guarantee Fee	112	112	115	113	113	113	113	113	112	111	
Amortization of (Premiums), Discounts, and Transaction Costs	2	3	3	3	3	3	3	3	2	2	
Intercompany Interest Receivable	(32)	(32)	(33)	(33)	(33)	(32)	(33)	(33)	(32)	(32)	
Total Interest on Short & Long Term Debt	**937**	**940**	**944**	**931**	**930**	**926**	**917**	**914**	**907**	**896**	
Interest Allocated to Construction	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**	
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	
Other Amortization	31	30	30	30	29	29	29	29	29	29	
Total Finance Expense	**938**	**939**	**943**	**928**	**917**	**914**	**910**	**899**	**893**	**888**	**18,533**
Finance Income	**(19)**	**(19)**	**(21)**	**(20)**	**(19)**	**(17)**	**(18)**	**(20)**	**(21)**	**(20)**	**(401)**
Net Finance Expense											**18,132**

Manitoba Hydro

Manitoba Hydro 2023/24 & 2024/25 General Rate Application
PUB/MH II-9a-d

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3% Rate Increase in 2024 and 2025 and 1.69% Thereafter & Reduced Govt Payments Scenario less Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	(2)	(11)	(11)	(20)	(31)	(35)	(35)	(33)	(40)	(32)
Provincial Guarantee Fee	(116)	(114)	(116)	(117)	(117)	(118)	(118)	(120)	(120)	(119)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	1	-	-	1	1	2	1
Total Interest on Short & Long Term Debt	**(118)**	**(125)**	**(127)**	**(136)**	**(148)**	**(153)**	**(152)**	**(152)**	**(158)**	**(150)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	1	1	1	1	1	1	1	1	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(117)**	**(124)**	**(126)**	**(135)**	**(147)**	**(152)**	**(151)**	**(151)**	**(158)**	**(150)**
Finance Income	**2**	**2**	**(3)**	**0**	**5**	**5**	**3**	**2**	**7**	**5**

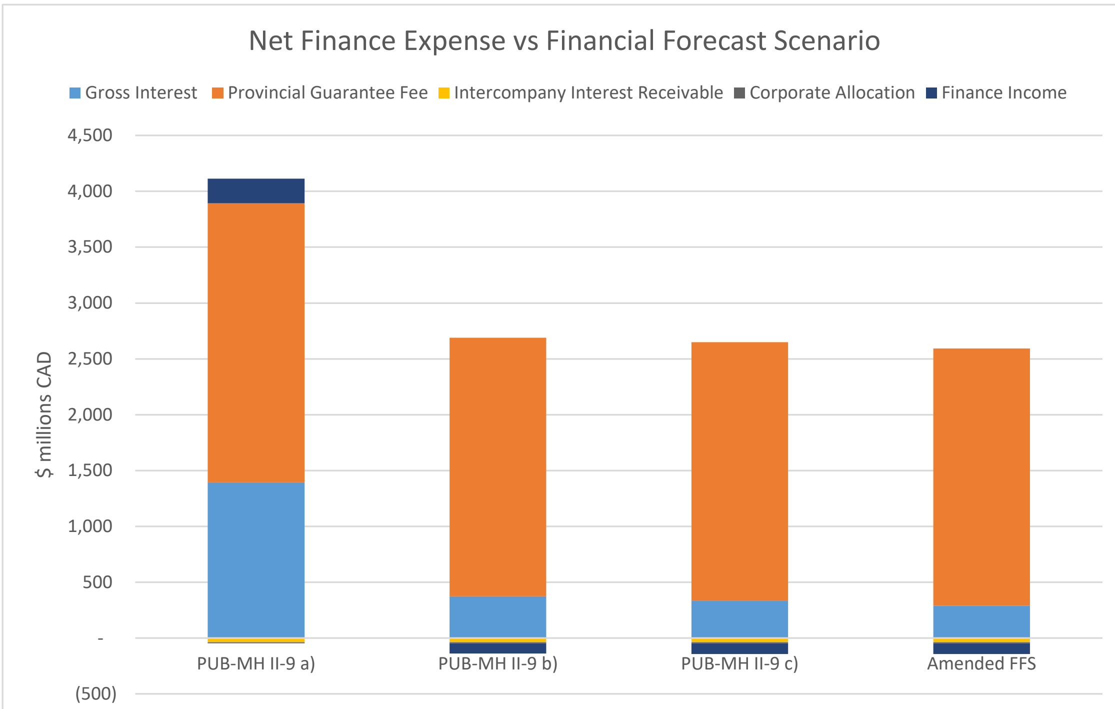
	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(25)	(21)	(23)	(23)	(20)	(12)	3	7	13	14	(337)
Provincial Guarantee Fee	(118)	(116)	(120)	(116)	(115)	(114)	(112)	(110)	(109)	(107)	(2,312)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	2	2	2	2	3	4	3	4	5	5	38
Total Interest on Short & Long Term Debt	**(141)**	**(135)**	**(141)**	**(137)**	**(132)**	**(122)**	**(106)**	**(99)**	**(91)**	**(88)**	**(2,611)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	8
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(141)**	**(135)**	**(141)**	**(137)**	**(132)**	**(122)**	**(106)**	**(99)**	**(91)**	**(88)**	**(2,603)**
Finance Income	**4**	**4**	**9**	**13**	**14**	**12**	**5**	**5**	**2**	**3**	**97**
Net Finance Expense											**(2,506)**

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
3% Rate Increase in 2024 and 2025 and 1.69% Thereafter & Reduced Govt Payments Scenario less Amended Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	-	-	-	(4)	(2)	(3)	(5)	(5)	(6)	(7)
Provincial Guarantee Fee	-	-	-	(1)	-	(1)	-	(1)	(1)	(1)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**-**	**-**	**-**	**(5)**	**(2)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**-**	**-**	**-**	**(5)**	**(2)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Finance Income	**-**	**(0)**	**(1)**	**1**	**(1)**	**(1)**	**(0)**	**(1)**	**(0)**	**0**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042	20 Year Total
Interest on Short & Long Term Debt											
Gross Interest	(7)	(7)	(8)	(8)	(4)	(3)	-	1	8	12	(48)
Provincial Guarantee Fee	(1)	(1)	-	(1)	(1)	(1)	-	1	1	1	(7)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	-	-	-	-	-	-	-	-
Total Interest on Short & Long Term Debt	**(8)**	**(8)**	**(8)**	**(9)**	**(5)**	**(4)**	**-**	**2**	**9**	**13**	**(55)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-
Realized FX (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(8)**	**(8)**	**(8)**	**(9)**	**(5)**	**(4)**	**-**	**2**	**9**	**13**	**(55)**
Finance Income	**0**	**0**	**1**	**1**	**(0)**	**1**	**0**	**2**	**(1)**	**(0)**	**1**
Net Finance Expense											**(54)**

d) Please find the comparative bar graph of net finance expense of the scenarios vs the financial forecast scenario.



REFERENCE:

PUB/MH I-35a-b

PREAMBLE TO IR (IF ANY):

In the Amended Financial Forecast Scenario, the Cash from Operations has been updated to reflect the reduction in payments to the government of approximately $4.0 billion and the revised rate path with reduced revenue of $3.8 billion for the 20-year planning horizon.

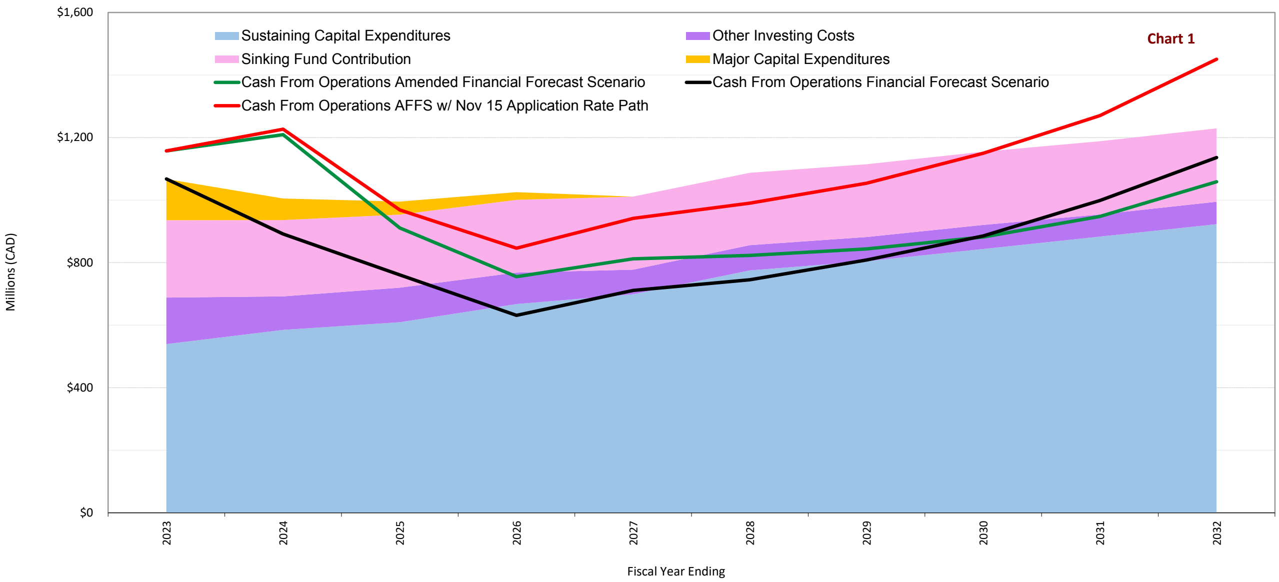
QUESTION:

a) Please update the graph in (a) by adding an additional line plotting the cash flow assuming no changes in the application's annual rate request from the November application, reflecting the December 9th reduction in payments to the government and commenting on the changes relative to the amended application.
b) Please update the graph in (a) by adding an additional line plotting the cash flow assuming no changes in the application's annual rate request for the two test years from the November application, reflecting the December 9th reduction in payments to the government, which adjusts the forecasted future equal annual rate increases to achieve and maintain the debt ratio targets once attained and comment on the comment on the change.

RESPONSE:

a) Under this scenario, the rate path is unchanged from the November 15, 2022 filing and the utility collects $3.8 billion of additional rate revenue over the 20 year forecast related to the difference between the 3.5% and 2.0% rate paths. The additional rate revenue allows for earlier debt retirement resulting in savings to finance expense of $1.6 billion. In total, this scenario provides for additional cash from operations of $5.4 billion over the 20-year forecast relative to the Amended Financial Forecast Scenario. As a result of this earlier debt repayment, the sinking fund contributions for the 20-year planning horizon are slightly lower under this scenario relative to the Amended Financial Forecast Scenario by $0.3 billion. By 2029/30, the utility is able to fund all capital investments excluding

Major Capital as well as the minimum sinking fund contribution with internally generated funds. Under the Amended Financial Forecast Scenario, internally generated funds are not sufficient to do so until 2036/37. The following graph shows a comparison of the two scenarios for consolidated operations.



b) Under this scenario, the rate path includes 3.5% for the test years and adjusts the forecasted future rate increases to smoothed, annual rate increases of 1.55% for the remainder of the 20-year forecast period to maintain the debt ratio targets once attained.

With the higher rate increases in the test years, the cash collected by the utility in the first decade exceeds the Amended Financial Forecast Scenario by $0.2 billion allowing for earlier debt retirement and finance expense savings of $0.1 billion over the 20-year forecast timeframe. However, in the second decade cash collected is lower by $0.8 billion. As a result, the cash from operations is lower by $0.5 billion over the 20-year forecast relative to the Amended Financial Forecast Scenario. The timing of the cash flows is such that the total sinking fund contributions over the 20-year planning horizon are nearly the same relative to the Amended Financial Forecast Scenario. Due to the reduced cash from operations, the utility does not have the ability to fund all capital investments excluding Major Capital as well as the minimum sinking fund contribution with internally generated funds until 2038/39. The following graph shows a comparison of the two scenarios for consolidated operations.

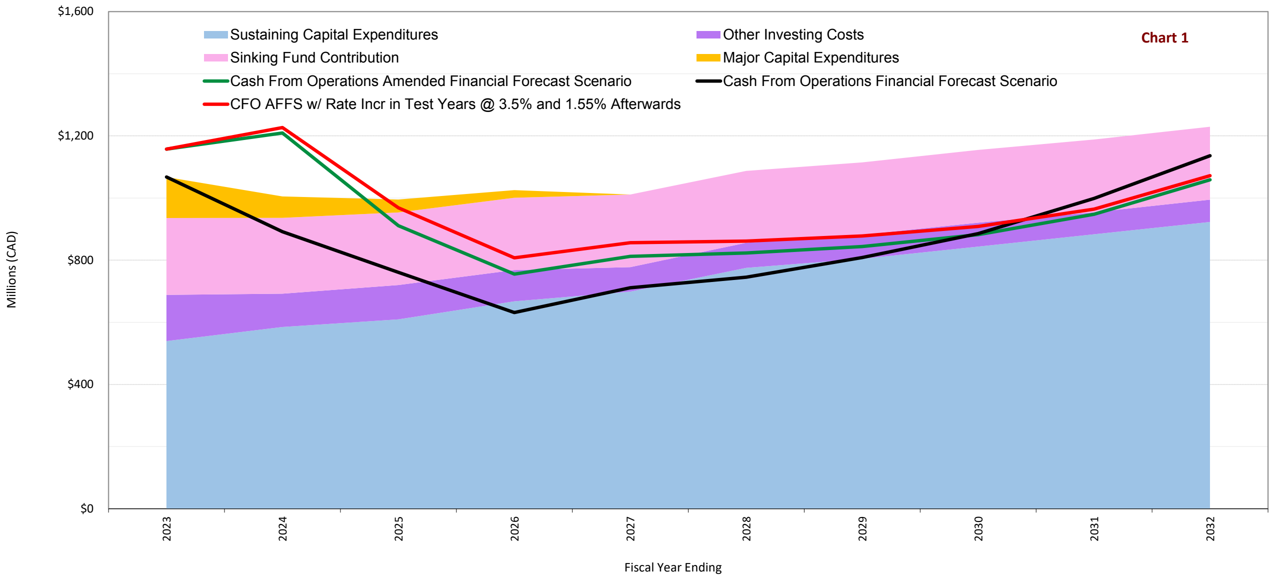


Chart 1
Sustaining Capital Expenditures
Other Investing Costs
Sinking Fund Contribution
Major Capital Expenditures
Cash From Operations Amended Financial Forecast Scenario
Cash From Operations Financial Forecast Scenario
CFO AFFS w/ Rate Incr in Test Years @ 3.5% and 1.55% Afterwards
Millions (CAD)
$1,600
$1,200
$800
$400
$0
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Fiscal Year Ending

MFR 20 (Amended)

Prior references
PUB MFR 15, 2017/18 & 2018/19 GRA

Financial Information

A table which details the debt to equity ratio, capital coverage ratio and interest coverage ratio, net assets, net income, total debt and retained earnings for the last five fiscal years and each of the years in the 20-year forecast.

Please see Figure 1 below for the last five fiscal years and the 20-year Amended Financial Forecast Scenario.

Figure 1 Financial Metrics for the last five fiscal years and the 20-year Amended Financial Forecast Scenario

	Fiscal Year Ended	Debt/ Equity Ratio	Capital Coverage Ratio	EBIT Interest Coverage Ratio	EBITDA Interest Coverage Ratio	Total Assets (in Millions of $)	Net Income (in Millions of $)	Net Debt (in Millions of $)	Retained Earnings (in Millions of $)
Actual	2018	85:15	0.19	1.02	1.46	24,540	18	18,233	2,767
Actual	2019	87:13	0.68	1.10	1.59	26,765	101	20,258	2,853
Actual	2020	87:13	1.08	1.10	1.57	28,629	105	21,956	2,958
Actual	2021	86:14	1.26	1.10	1.56	30,001	116	22,602	3,074
Actual	2022	87:13	0.56	0.77	1.31	30,420	(249)	23,293	2,825
Forecast	2023	85:15	2.26	1.80	2.48	30,403	751	22,963	3,575
Forecast	2024	83:17	2.23	1.51	2.21	29,790	469	22,529	4,044
Forecast	2025	82:18	1.61	1.32	2.06	30,038	295	22,341	4,339
Forecast	2026	82:18	1.20	1.16	1.92	30,251	149	22,371	4,488
Forecast	2027	81:19	1.21	1.18	1.95	30,251	166	22,322	4,654
Forecast	2028	81:19	1.08	1.10	1.89	30,495	97	22,356	4,751
Forecast	2029	80:20	1.06	1.10	1.90	30,770	92	22,401	4,843
Forecast	2030	80:20	1.06	1.11	1.95	30,807	111	22,451	4,953
Forecast	2031	79:21	1.08	1.11	1.99	31,066	105	22,471	5,058
Forecast	2032	79:21	1.16	1.18	2.12	31,419	169	22,424	5,227
Forecast	2033	78:22	1.16	1.20	2.17	31,879	190	22,372	5,417
Forecast	2034	77:23	1.21	1.23	2.24	32,604	219	22,270	5,635
Forecast	2035	76:24	1.29	1.29	2.33	32,994	277	22,090	5,912
Forecast	2036	75:25	1.27	1.27	2.36	33,200	250	22,030	6,162
Forecast	2037	73:27	1.32	1.30	2.44	33,820	282	22,063	6,444
Forecast	2038	72:28	1.37	1.33	2.53	34,036	309	21,983	6,753
Forecast	2039	71:29	1.43	1.39	2.64	34,320	358	21,798	7,112
Forecast	2040	70:30	1.52	1.48	2.79	34,860	439	21,656	7,551
Forecast	2041	68:32	1.59	1.57	2.92	35,040	507	21,355	8,058
Forecast	2042	66:34	1.66	1.65	3.07	35,422	569	20,930	8,628

MFR 20

Prior references
PUB MFR 15, 2017/18 & 2018/19 GRA

Financial Information

A table which details the debt to equity ratio, capital coverage ratio and interest coverage ratio, net assets, net income, total debt and retained earnings for the last five fiscal years and each of the years in the 20-year forecast.

1 Please see Figure 1 below for the last five fiscal years and the 20-year Financial Forecast Scenario.

Figure 1 Financial Metrics for the last five fiscal years and the 20-year Financial Forecast Scenario

	Fiscal Year Ended	Debt/ Equity Ratio	Capital Coverage Ratio	EBIT Interest Coverage Ratio	EBITDA Interest Coverage Ratio	Total Assets	Net Income	Net Debt	Retained Earnings
Actual	2018	85:15	0.19	1.02	1.46	24 540	18	18 233	2 767
Actual	2019	87:13	0.68	1.10	1.59	26 765	101	20 258	2 853
Actual	2020	87:13	1.08	1.10	1.57	28 629	105	21 956	2 958
Actual	2021	86:14	1.26	1.10	1.56	30 001	116	22 602	3 074
Actual	2022	87:13	0.56	0.77	1.31	30 420	(249)	23 293	2 825
Forecast	2023	86:14	2.20	1.54	2.14	30 219	568	22 989	3 392
Forecast	2024	85:15	1.62	1.28	1.90	29 841	298	22 878	3 691
Forecast	2025	84:16	1.37	1.16	1.81	29 953	162	22 829	3 853
Forecast	2026	84:16	1.03	1.04	1.70	30 252	46	22 963	3 899
Forecast	2027	83:17	1.09	1.08	1.75	30 366	86	22 993	3 985
Forecast	2028	83:17	1.02	1.05	1.74	30 563	51	23 075	4 036
Forecast	2029	83:17	1.05	1.08	1.78	30 823	83	23 127	4 119
Forecast	2030	82:18	1.09	1.13	1.85	30 890	141	23 148	4 260
Forecast	2031	82:18	1.17	1.16	1.93	31 023	181	23 094	4 441
Forecast	2032	81:19	1.31	1.28	2.10	31 510	301	22 915	4 742
Forecast	2033	79:21	1.37	1.36	2.21	31 954	383	22 671	5 125
Forecast	2034	78:22	1.40	1.36	2.26	33 040	389	22 401	5 514
Forecast	2035	76:24	1.44	1.39	2.31	33 570	416	22 084	5 931
Forecast	2036	74:26	1.39	1.35	2.32	33 884	367	21 910	6 298
Forecast	2037	73:27	1.41	1.35	2.37	34 383	371	21 858	6 669
Forecast	2038	72:28	1.42	1.36	2.43	34 447	368	21 723	7 037
Forecast	2039	70:30	1.45	1.38	2.51	34 547	384	21 516	7 422
Forecast	2040	69:31	1.51	1.42	2.60	35 063	425	21 393	7 847
Forecast	2041	67:33	1.52	1.45	2.67	35 183	448	21 156	8 294
Forecast	2042	66:34	1.55	1.47	2.75	35 446	457	20 845	8 752

5

MFR 19

Prior references
PUB MFR 14, 2017/18 & 2018/19 GRA

Financial Information

An updated table of financial ratios (debt to equity ratio, capital coverage ratio and interest coverage ratio), net assets, net income, total debt, retained earnings, DBRS bond ratings, total provincial debt, and ratio of total Manitoba Hydro debt to total Manitoba debt in each year since 1992.

Please see Figure 1 on the following page. Information relating to the Province of Manitoba was provided by the Province.

Figure 1 Financial Ratios

Financial History	Debt/Equity Ratio	EBITDA Interest Coverage Ratio	CFO/ Total Debt	Total MH Assets	MH Net Income	Total MH Debt	Sinking Fund	Total MH Net Debt	MH Retained Earnings	DBRS Bond Rating	Total Province of MB Debt	Sinking Fund	Total Province of MB Net Debt	Total MH Net Debt to Total MB Net Debt
2022	86:14	1.35	2.9	31,138	(248)	24,758	0	24,758	3,012	A (high)	57,116	1,110	56,006	44.2%
2021	86:14	1.59	3.2	30,715	119	24,186	0	24,186	3,260	A (high)	55,337	991	54,346	44.5%
2020	86:14	1.60	2.3	29,306	99	23,288	0	23,288	3,141	A (high)	52,411	974	51,437	45.3%
2019	86:14	1.57	1.2	27,431	121	21,552	0	21,552	3,042	A (high)	50,728	741	49,987	43.1%
2018	85:15	1.50	5.3	25,169	37	19,200	0	19,200	2,936	A (high)	46,459	871	45,588	42.1%
2017	84:16	1.54	5.4	22,338	71	16,438	0	16,438	2,899	A (high)	43,738	1,104	42,634	38.6%
2016	83:17	1.57	5.2	19,780	49	14,527	0	14,527	2,828	A (high)	39,851	1,227	38,624	37.6%
2015	82:18	1.73	6.4	17,567	136	12,680	114	12,566	2,779	A (high)	35,742	1,389	34,353	36.6%
2014	76:24	1.95	6.1	15,639	174	10,868	111	10,757	2,716	A (high)	32,629	1,544	31,085	34.6%
2013	75:25	1.81	6.3	14,542	92	9,985	352	9,633	2,542	A (high)	30,563	1,672	28,891	33.3%
2012	74:26	1.74	7.1	13,791	61	9,382	372	9,010	2,450	A (high)	28,698	1,859	26,839	33.6%
2011	73:27	1.96	7.6	12,882	150	8,647	282	8,365	2,389	A (high)	25,617	1,896	23,721	35.3%
2010	73:27	2.06	9.0	12,437	164	8,538	383	8,155	2,239	A (high)	24,431	2,097	22,334	36.5%
2009	77:23	2.16	9.2	11,547	266	8,187	666	7,521	2,076	A (high)	22,727	2,335	20,392	36.9%
2008	73:27	2.43	6.6	11,766	346	7,571	718	6,853	1,822	A (high)	22,056	2,757	19,299	35.5%
2007	80:20	1.83	10.7	10,922	122	7,227	630	6,597	1,407	A (high)	20,476	2,516	17,960	36.7%
2006	81:19		6.5	10,482	415	7,169	555	6,614	1,285	A (high)	19,828	2,153	17,675	37.4%
2005	85:15			9,952	136	7,204	562	6,642	870	A (high)	19,410	2,729	16,681	39.8%
2004	87:13			9,903	(436)	7,390	715	6,675	734	A (high)	18,206	3,070	15,136	44.1%
2003	80:20			10,234	71	7,268	948	6,320	1,170	A (high)	17,810	3,939	13,871	45.6%
2002	77:23			10,405	214	7,661	1,515	6,146	1,302	A	20,682	6,551	14,131	43.5%
2001	80:20			9,966	270	7,464	1,350	6,114	1,088	A	20,459	6,247	14,212	43.0%
2000	83:17			8,692	152	6,770	1,282	5,488	818	A	19,878	6,411	13,467	40.8%
1999	84:16			7,866	100	5,883	1,111	4,772	666	A	18,278	5,822	12,456	38.3%
1998	86:14			7,617	111	5,548	989	4,559	566	A	17,378	5,053	12,325	37.0%
1997	88:12			7,133	101	5,175	682	4,493	455	A	16,886	4,530	12,356	36.4%
1996	91:09			6,737	70	5,284	599	4,685	354	A	16,763	3,833	12,930	36.2%
1995	92:08			6,449	56	5,034	527	4,507	284	A	16,481	3,442	13,039	34.6%
1994	93:07			6,543	70	5,406	458	4,948	228	A	15,670	3,091	12,579	39.3%
1993	95:05			6,025	(24)	4,971	438	4,533	159	A	14,127	2,892	11,235	40.3%
1992	94:06			6,505	18	5,441	469	4,972	183	A	12,776	2,669	10,107	49.2%

Please note the above information includes Consolidated data.

Manitoba Hydro
360 Portage Avenue (22) • Winnipeg Manitoba Canada • R3C 0G8
Telephone / Nº de téléphone: (204) 360-3257 • Fax / Nº de télécopieur: (204) 360-6147 • baczarnecki@hydro.mb.ca

February 28, 2022

THE PUBLIC UTILITIES BOARD OF MANITOBA
400-330 Portage Avenue
Winnipeg, Manitoba
R3C 0C4

ATTENTION: Dr. D. Christle, Board Secretary and Executive Director

Dear Dr. Christle:

RE: Manitoba Hydro Response to Directive 2 of Order 9/22

On January 26, 2022, the Public Utilities Board of Manitoba ("PUB") issued Order 9/22 directing Manitoba Hydro to file updated schedules of its revenue requirement for 2021/22 and 2022/23 reflecting the PUB's decisions in Orders 137/21 and 140/21. Enclosed is Manitoba Hydro's response to this directive, which provides the 2021/22 and 2022/23 financial statements reflecting the approved rate increase of 3.6%, as well as the PUB's direction with respect to the Major Capital Deferral.

The following is a table summarizing the financial impacts:

($ millions)	**2021/22**	**2022/23**
Lower additional revenue (3.6% versus 5.0% rate increase)	(8)	(24)
No recognition of Major Capital Projects Deferral Account revenues	(12)	(50)
Total Net Income Impact of the PUB's Decision	(20)	(74)

Should you have any questions with respect to this submission, please contact the writer at 204-360-3257.

Yours truly,

MANITOBA HYDRO LEGAL SERVICES DIVISION
Per:

BRENT A. CZARNECKI
Barrister & Solicitor

Available in accessible formats upon request

ELECTRIC OPERATIONS
OPERATING STATEMENT
(In Millions of Dollars)

For the year ended March 31	**FORECAST 2021/22**	**BUDGET 2022/23**
REVENUES		
Domestic Revenue	1,792	1,769
Additional - Board Order 137/21	20	63
Extraprovincial	637	916
Other	29	29
	2,478	2,777
EXPENSES		
Operating and Administrative	557	595
Net Finance Expense	994	1,039
Depreciation and Amortization	579	621
Water Rentals and Assessments	98	134
Fuel and Power Purchased	428	157
Capital and Other Taxes	152	161
Other Expenses	87	106
Corporate Allocation	8	8
	2,902	2,820
Net Income before Net Movement in Reg. Deferral	(424)	(43)
Net Movement in Regulatory Deferral	202	175
Net Income	(222)	132
Net Income Attributable to:		
Manitoba Hydro	**(210)**	**126**
Non-Controlling Interests	(13)	6
	(222)	132
Interim Approved Percent Increase	3.60%	
Proposed Percent Increase		0.00%

REFERENCE:

Tab 4 Amended pg. 46 Figures 4.36

PREAMBLE TO IR (IF ANY):

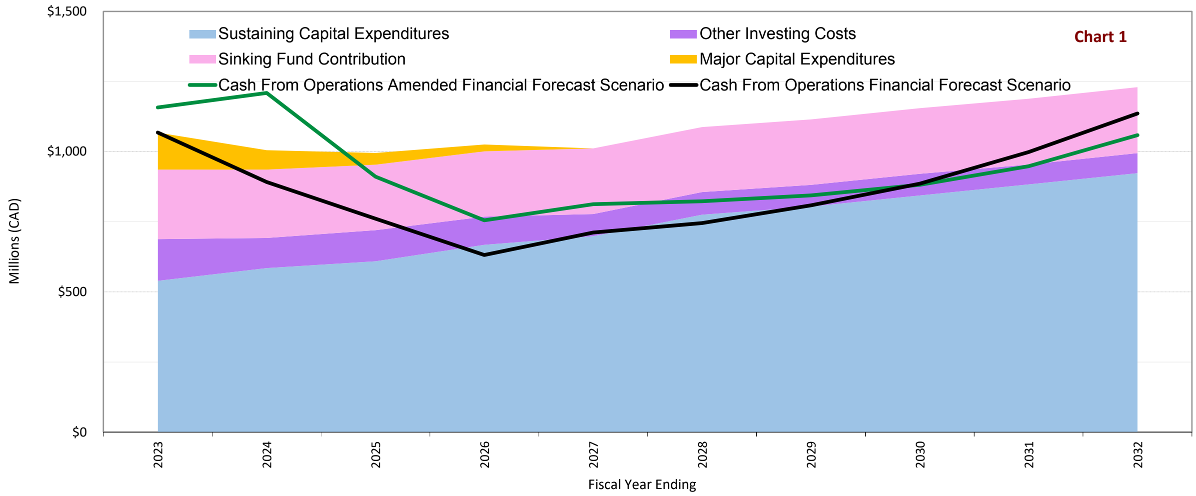
QUESTION:

a) Please comment on the changes between Figure 4.36 from Tab 4 Amended with Figure 4.34 from the original Tab 4.

b) Please refile Figure 4.36 from Tab 4 Amended adding additional cash from the operations plot, excluding the 3.6% rate increase granted in 2021/22, effective September 1, 2023.

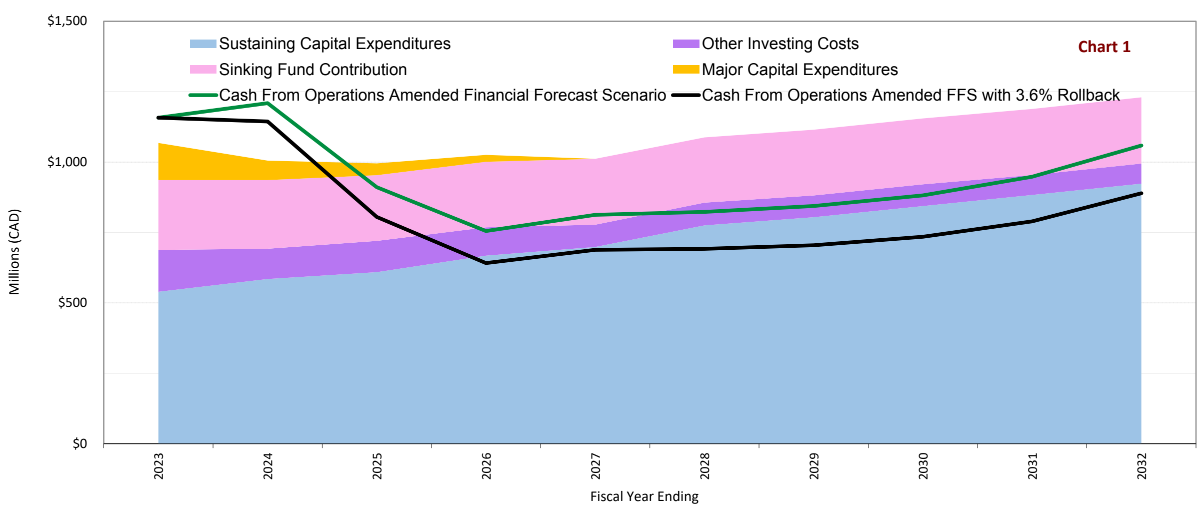
RESPONSE:

a) In the Amended Financial Forecast Scenario, the Cash from Operations has been updated to reflect the reduction in payments to government of approximately $4.0 billion, as well as the revised rate path with reduced revenue of $3.8 billion for the 20-year planning horizon. While the two financial forecast scenarios generate similar financial results over the 20-year planning horizon, timing differences result in Cash from Operations under the Amended Financial Forecast Scenario exceeding the Cash from Operations in the Financial Forecast Scenario for the first seven years of the forecast allowing for accelerated repayment of debt. As a result of this earlier debt repayment, the sinking fund contributions for the 20-year planning horizon are slightly lower under the Amended Financial Forecast Scenario by $0.1 billion. The following graph shows a comparison of the two scenarios for consolidated operations.



Please note, in Figure 4.34 from the original Tab 4, Other Investing was understated and this was corrected in Figure 4.36 in the Amended Tab 4.

b) Please see the following graph which adds to the Figure 4.36 from Tab 4 (Amended), the Cash from Operations from the Amended Financial Forecast Scenario excluding the 3.6% rate increase granted in 2021/22, effective September 1, 2023. Please note, under this scenario with the 3.6% removed, the minimum legislated sinking fund contribution would increase by $0.25 billion over the levels below in pink over the 20-year planning horizon. Absent the 3.6% rate increase granted in 2021/22, Manitoba Hydro will not have sufficient cash from operations to fund all business operations capital and other investing after 2024/25 and will require external debt financing to support these investment needs.



REFERENCE:

MFR 17, MFR18

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please provide the present value of the proposed annualized revenue increase requested for each of 2021/22, 2023/24 and 2024/25 over the next twenty years of the planning horizon based on including a 2.0% rate increase in each of the years 2023/24 and 2024/25. Please utilize MH's weighted average cost of capital for the determination.
b) Provide (a) based on the 3.5% increases forecast for each of the 2023/24 and 2024/25 years. Please utilize MH's weighted average cost of capital for the determination.
c) Please provide the present value of the proposed annualized revenue increase requested for each of 2021/22, 2023/24 and 2024/25 over the next twenty years of the planning horizon based on including a 1.0% rate increase in each of the years 2023/24 and 2024/25. Please utilize MH's weighted average cost of capital for the determination.
d) Please provide the present value of the proposed annualized revenue increase requested for each of 2021/22, 2023/24 and 2024/25 over the next twenty years of the planning horizon based on including a 1.0% rate increase on February 1, 2023, 1% on September 1, 2023 and 2% on April 1, 2024. Please utilize MH's weighted average cost of capital for the determination.

RESPONSE:

a) The present value of the proposed annualized revenue increase requested for 2021/22 (3.6%), 2023/24 (2.0%) and 2024/25 (2.0%) at a 5.75% weighted average cost of capital ("WACC") discount rate is $1,915 million. Please see the attached schedules for the calculations.

b) The present value of the proposed annualized revenue increase requested for 2021/22 (3.6%) and based on 3.5% increases in 2023/24 and 2024/25 at a 5.75% WACC discount rate is $2,650 million. Please see the attached schedules for the calculations.

c) The present value of the proposed annualized revenue increase requested for 2021/22 (3.6%) and based on 1% increases in 2023/24 and 2024/25 at a 5.75% WACC discount rate is $1,430 million. Please see the attached schedules for the calculations.

d) The present value of the proposed annualized revenue increase requested for 2021/22 (3.6%) and based on a 1.0% rate increase on February 1, 2023 (2022/23), a 1% rate increase on September 1, 2023 (2023/24) and a 2% rate increase on April 1, 2024 (2024/25) at a 5.75% WACC discount rate is $1,926 million. Please see the attached schedules for the calculations.

In Millions of Dollars

				Amended Financial Forecast Scenario with No Rate Increases from 2021/22 to 2024/25				PUB 17a: Amended Financial Forecast Scenario with Jan 1, 2022 3.6% Interim Rate Increase in Additional				NPV of Revenue Increases	
	Nominal WACC	Discount Factor	Domestic Revenue at Dec 1/20 Rates	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Additional Revenue Associated with 2022/23 Rate Inc	Discounted Additional Revenue
2021/22	5.75%	1.000	$1 814	0.00%	0.00%	$0	$0	**3.60%**	1.09%	$20	$20	$20	$20
2022/23	5.75%	1.058	1 810	0.00%	0.00%	0	0	0.00%	3.60%	65	61	65	61
2023/24	5.75%	1.118	1 783	0.00%	0.00%	0	0	**2.00%**	4.93%	87	78	87	78
2024/25	5.75%	1.183	1 789	0.00%	0.00%	0	0	**2.00%**	7.79%	138	117	138	117
2025/26	5.75%	1.251	1 798	2.00%	2.00%	36	29	2.00%	9.94%	177	142	142	113
2026/27	5.75%	1.323	1 809	2.00%	4.04%	73	55	2.00%	12.14%	218	165	145	110
2027/28	5.75%	1.399	1 823	2.00%	6.12%	111	79	2.00%	14.38%	260	186	149	107
2028/29	5.75%	1.479	1 838	2.00%	8.24%	150	102	2.00%	16.67%	304	206	154	104
2029/30	5.75%	1.564	1 856	2.00%	10.41%	192	123	2.00%	19.00%	350	224	158	101
2030/31	5.75%	1.654	1 876	2.00%	12.62%	235	142	2.00%	21.38%	398	241	163	99
2031/32	5.75%	1.749	1 905	2.00%	14.87%	281	161	2.00%	23.81%	450	257	169	97
2032/33	5.75%	1.850	1 940	2.00%	17.17%	331	179	2.00%	26.29%	506	274	176	95
2033/34	5.75%	1.956	1 980	2.00%	19.51%	383	196	2.00%	28.81%	566	289	183	93
2034/35	5.75%	2.068	2 023	2.00%	21.90%	440	213	2.00%	31.39%	630	305	191	92
2035/36	5.75%	2.187	2 077	2.00%	24.34%	502	229	2.00%	34.02%	702	321	200	91
2036/37	5.75%	2.313	2 136	2.00%	26.82%	569	246	2.00%	36.70%	778	336	209	91
2037/38	5.75%	2.446	2 196	2.00%	29.36%	640	262	2.00%	39.43%	860	352	220	90
2038/39	5.75%	2.587	2 256	2.00%	31.95%	716	277	2.00%	42.22%	946	366	230	89
2039/40	5.75%	2.736	2 318	2.00%	34.59%	796	291	2.00%	45.07%	1 038	379	241	88
2040/41	5.75%	2.893	2 381	2.00%	37.28%	882	305	2.00%	47.97%	1 135	392	253	87
2041/42	5.75%	2.893	2 440	2.00%	40.02%	971	336	2.00%	50.93%	1 235	427	264	91
NPV							**$3 222**				**$5 137**		**$1 915**

In Millions of Dollars

PUB 17a: Amended Financial Forecast Scenario with Jan 1, 2022 3.6% Interim Rate Increase in Additional					With Compounding Due To Projected Future Rate Increases				NPV of Revenue Increases	
	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increase without Rate Increase in 2022/23	Effective Cumulative Rate Increase	Additional Domestic Revenue due to Compounding of Future Rate Increase	Discounted Additional Domestic Revenue due to Compounding of Future Rate Increase	Additional Revenue Associated with 2022/23 Rate Inc	Total Discounted Additional Domestic Revenue
2021/22	**3.60%**	1.09%	$20	$20	0.00%	0.00%	$0	$0	$20	$20
2022/23	0.00%	3.60%	65	61	0.00%	0.00%	0	0	65	61
2023/24	**2.00%**	4.93%	87	78	0.00%	0.00%	0	0	87	78
2024/25	**2.00%**	7.79%	138	117	0.00%	0.00%	0	0	138	117
2025/26	0.00%	7.79%	139	111	2.00%	2.00%	3	2	142	113
2026/27	0.00%	7.79%	140	106	2.00%	4.04%	6	4	145	110
2027/28	0.00%	7.79%	141	101	2.00%	6.12%	9	6	149	107
2028/29	0.00%	7.79%	142	96	2.00%	8.24%	12	8	154	104
2029/30	0.00%	7.79%	143	92	2.00%	10.41%	15	10	158	101
2030/31	0.00%	7.79%	145	88	2.00%	12.62%	18	11	163	99
2031/32	0.00%	7.79%	147	84	2.00%	14.87%	22	13	169	97
2032/33	0.00%	7.79%	150	81	2.00%	17.17%	26	14	176	95
2033/34	0.00%	7.79%	153	78	2.00%	19.51%	30	15	183	93
2034/35	0.00%	7.79%	156	76	2.00%	21.90%	34	17	191	92
2035/36	0.00%	7.79%	161	73	2.00%	24.34%	39	18	200	91
2036/37	0.00%	7.79%	165	71	2.00%	26.82%	44	19	209	91
2037/38	0.00%	7.79%	170	69	2.00%	29.36%	50	20	220	90
2038/39	0.00%	7.79%	174	67	2.00%	31.95%	56	22	230	89
2039/40	0.00%	7.79%	179	66	2.00%	34.59%	62	23	241	88
2040/41	0.00%	7.79%	184	64	2.00%	37.28%	69	24	253	87
2041/42	0.00%	7.79%	189	65	2.00%	40.02%	76	26	264	91
NPV				**$1 664**				**$251**		**$1 915**

In Millions of Dollars

				Amended Financial Forecast Scenario with No Rate Increases from 2021/22 to 2024/25				PUB 17b Scenario: 3.5% Proposed Rates in 2023/24 & 2024/25 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				NPV of Revenue Increases	
	Nominal WACC	Discount Factor	Domestic Revenue at Dec 1/20 Rates	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Additional Revenue Associated with 2022/23 Rate Inc	Discounted Additional Revenue
2021/22	5.75%	1.000	$1 814	0.00%	0.00%	$0	$0	**3.60%**	1.09%	$20	$20	$20	$20
2022/23	5.75%	1.058	1 810	0.00%	0.00%	0	0	0.00%	3.60%	65	61	65	61
2023/24	5.75%	1.118	1 783	0.00%	0.00%	0	0	**3.50%**	5.93%	105	94	105	94
2024/25	5.75%	1.183	1 789	0.00%	0.00%	0	0	**3.50%**	10.98%	195	165	195	165
2025/26	5.75%	1.251	1 798	2.00%	2.00%	36	29	2.00%	13.20%	235	188	200	160
2026/27	5.75%	1.323	1 809	2.00%	4.04%	73	55	2.00%	15.46%	278	210	205	155
2027/28	5.75%	1.399	1 823	2.00%	6.12%	111	79	2.00%	17.77%	321	230	211	151
2028/29	5.75%	1.479	1 838	2.00%	8.24%	150	102	2.00%	20.13%	367	248	217	147
2029/30	5.75%	1.564	1 856	2.00%	10.41%	192	123	2.00%	22.53%	415	265	223	143
2030/31	5.75%	1.654	1 876	2.00%	12.62%	235	142	2.00%	24.98%	465	281	230	139
2031/32	5.75%	1.749	1 905	2.00%	14.87%	281	161	2.00%	27.48%	519	297	238	136
2032/33	5.75%	1.850	1 940	2.00%	17.17%	331	179	2.00%	30.03%	578	313	248	134
2033/34	5.75%	1.956	1 980	2.00%	19.51%	383	196	2.00%	32.63%	641	328	258	132
2034/35	5.75%	2.068	2 023	2.00%	21.90%	440	213	2.00%	35.28%	709	343	269	130
2035/36	5.75%	2.187	2 077	2.00%	24.34%	502	229	2.00%	37.99%	783	358	282	129
2036/37	5.75%	2.313	2 136	2.00%	26.82%	569	246	2.00%	40.75%	864	374	295	128
2037/38	5.75%	2.446	2 196	2.00%	29.36%	640	262	2.00%	43.56%	950	388	310	127
2038/39	5.75%	2.587	2 256	2.00%	31.95%	716	277	2.00%	46.43%	1 041	402	325	126
2039/40	5.75%	2.736	2 318	2.00%	34.59%	796	291	2.00%	49.36%	1 137	416	340	124
2040/41	5.75%	2.893	2 381	2.00%	37.28%	882	305	2.00%	52.35%	1 239	428	357	123
2041/42	5.75%	2.893	2 440	2.00%	40.02%	971	336	2.00%	55.40%	1 344	464	373	129
NPV							**$3 222**				**$5 873**		**$2 650**

In Millions of Dollars

	PUB 17b Scenario: 3.5% Proposed Rates in 2023/24 & 2024/25 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				With Compounding Due To Projected Future Rate Increases				NPV of Revenue Increases	
	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increase without Rate Increase in 2022/23	Effective Cumulative Rate Increase	Additional Domestic Revenue due to Compounding of Future Rate Increase	Discounted Additional Domestic Revenue due to Compounding of Future Rate Increase	Additional Revenue Associated with 2022/23 Rate Inc	Total Discounted Additional Domestic Revenue
2021/22	**3.60%**	1.09%	$20	$20	0.00%	0.00%	$0	$0	$20	$20
2022/23	0.00%	3.60%	65	61	0.00%	0.00%	0	0	65	61
2023/24	**3.50%**	5.93%	105	94	0.00%	0.00%	0	0	105	94
2024/25	**3.50%**	10.98%	195	165	0.00%	0.00%	0	0	195	165
2025/26	0.00%	10.98%	196	157	2.00%	2.00%	4	3	200	160
2026/27	0.00%	10.98%	197	149	2.00%	4.04%	8	6	205	155
2027/28	0.00%	10.98%	199	142	2.00%	6.12%	12	9	211	151
2028/29	0.00%	10.98%	200	135	2.00%	8.24%	17	11	217	147
2029/30	0.00%	10.98%	202	129	2.00%	10.41%	21	13	223	143
2030/31	0.00%	10.98%	204	124	2.00%	12.62%	26	16	230	139
2031/32	0.00%	10.98%	208	119	2.00%	14.87%	31	18	238	136
2032/33	0.00%	10.98%	211	114	2.00%	17.17%	36	20	248	134
2033/34	0.00%	10.98%	216	110	2.00%	19.51%	42	22	258	132
2034/35	0.00%	10.98%	220	107	2.00%	21.90%	48	23	269	130
2035/36	0.00%	10.98%	226	104	2.00%	24.34%	55	25	282	129
2036/37	0.00%	10.98%	233	101	2.00%	26.82%	62	27	295	128
2037/38	0.00%	10.98%	239	98	2.00%	29.36%	70	29	310	127
2038/39	0.00%	10.98%	246	95	2.00%	31.95%	79	30	325	126
2039/40	0.00%	10.98%	253	92	2.00%	34.59%	87	32	340	124
2040/41	0.00%	10.98%	260	90	2.00%	37.28%	97	33	357	123
2041/42	0.00%	10.98%	266	92	2.00%	40.02%	107	37	373	129
NPV				**$2 297**				**$354**		**$2 650**

In Millions of Dollars

				Amended Financial Forecast Scenario with No Rate Increases from 2021/22 to 2024/25				PUB 17c Scenario: 1% Proposed Rates in 2023/24 & 2024/25 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				NPV of Revenue Increases	
	Nominal WACC	Discount Factor	Domestic Revenue at Dec 1/20 Rates	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Additional Revenue Associated with 2022/23 Rate Inc	Discounted Additional Revenue
2021/22	5.75%	1.000	$1 814	0.00%	0.00%	$0	$0	**3.60%**	1.09%	$20	$20	$20	$20
2022/23	5.75%	1.058	1 810	0.00%	0.00%	0	0	0.00%	3.60%	65	61	65	61
2023/24	5.75%	1.118	1 783	0.00%	0.00%	0	0	**1.00%**	4.26%	75	67	75	67
2024/25	5.75%	1.183	1 789	0.00%	0.00%	0	0	**1.00%**	5.68%	101	85	101	85
2025/26	5.75%	1.251	1 798	2.00%	2.00%	36	29	2.00%	7.80%	139	111	103	83
2026/27	5.75%	1.323	1 809	2.00%	4.04%	73	55	2.00%	9.95%	179	135	106	80
2027/28	5.75%	1.399	1 823	2.00%	6.12%	111	79	2.00%	12.15%	220	157	109	78
2028/29	5.75%	1.479	1 838	2.00%	8.24%	150	102	2.00%	14.39%	262	177	112	76
2029/30	5.75%	1.564	1 856	2.00%	10.41%	192	123	2.00%	16.68%	307	196	115	74
2030/31	5.75%	1.654	1 876	2.00%	12.62%	235	142	2.00%	19.02%	354	214	119	72
2031/32	5.75%	1.749	1 905	2.00%	14.87%	281	161	2.00%	21.40%	404	231	123	71
2032/33	5.75%	1.850	1 940	2.00%	17.17%	331	179	2.00%	23.82%	459	248	128	69
2033/34	5.75%	1.956	1 980	2.00%	19.51%	383	196	2.00%	26.30%	517	264	133	68
2034/35	5.75%	2.068	2 023	2.00%	21.90%	440	213	2.00%	28.83%	579	280	139	67
2035/36	5.75%	2.187	2 077	2.00%	24.34%	502	229	2.00%	31.40%	648	296	146	67
2036/37	5.75%	2.313	2 136	2.00%	26.82%	569	246	2.00%	34.03%	722	312	153	66
2037/38	5.75%	2.446	2 196	2.00%	29.36%	640	262	2.00%	36.71%	801	327	160	66
2038/39	5.75%	2.587	2 256	2.00%	31.95%	716	277	2.00%	39.45%	884	342	168	65
2039/40	5.75%	2.736	2 318	2.00%	34.59%	796	291	2.00%	42.23%	973	356	176	64
2040/41	5.75%	2.893	2 381	2.00%	37.28%	882	305	2.00%	45.08%	1 067	369	185	64
2041/42	5.75%	2.893	2 440	2.00%	40.02%	971	336	2.00%	47.98%	1 164	402	193	67
NPV							**$3 222**				**$4 652**		**$1 430**

In Millions of Dollars

	PUB 17c Scenario: 1% Proposed Rates in 2023/24 & 2024/25 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				With Compounding Due To Projected Future Rate Increases				NPV of Revenue Increases	
	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increase without Rate Increase in 2022/23	Effective Cumulative Rate Increase	Additional Domestic Revenue due to Compounding of Future Rate Increase	Discounted Additional Domestic Revenue due to Compounding of Future Rate Increase	Additional Revenue Associated with 2022/23 Rate Inc	Total Discounted Additional Domestic Revenue
2021/22	**3.60%**	1.09%	$20	$20	0.00%	0.00%	$0	$0	$20	$20
2022/23	0.00%	3.60%	65	61	0.00%	0.00%	0	0	65	61
2023/24	**1.00%**	4.26%	75	67	0.00%	0.00%	0	0	75	67
2024/25	**1.00%**	5.68%	101	85	0.00%	0.00%	0	0	101	85
2025/26	0.00%	5.68%	101	81	2.00%	2.00%	2	2	103	83
2026/27	0.00%	5.68%	102	77	2.00%	4.04%	4	3	106	80
2027/28	0.00%	5.68%	103	73	2.00%	6.12%	6	4	109	78
2028/29	0.00%	5.68%	104	70	2.00%	8.24%	9	6	112	76
2029/30	0.00%	5.68%	105	67	2.00%	10.41%	11	7	115	74
2030/31	0.00%	5.68%	106	64	2.00%	12.62%	13	8	119	72
2031/32	0.00%	5.68%	107	61	2.00%	14.87%	16	9	123	71
2032/33	0.00%	5.68%	109	59	2.00%	17.17%	19	10	128	69
2033/34	0.00%	5.68%	112	57	2.00%	19.51%	22	11	133	68
2034/35	0.00%	5.68%	114	55	2.00%	21.90%	25	12	139	67
2035/36	0.00%	5.68%	117	54	2.00%	24.34%	29	13	146	67
2036/37	0.00%	5.68%	121	52	2.00%	26.82%	32	14	153	66
2037/38	0.00%	5.68%	124	51	2.00%	29.36%	36	15	160	66
2038/39	0.00%	5.68%	127	49	2.00%	31.95%	41	16	168	65
2039/40	0.00%	5.68%	131	48	2.00%	34.59%	45	17	176	64
2040/41	0.00%	5.68%	134	46	2.00%	37.28%	50	17	185	64
2041/42	0.00%	5.68%	138	48	2.00%	40.02%	55	19	193	67
NPV				**$1 247**				**$183**		**$1 430**

In Millions of Dollars

				Amended Financial Forecast Scenario with No Rate Increases from 2021/22 to 2024/25				PUB 17d Scenario: 1% Proposed Rates in 2022/23 & 2023/24 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				NPV of Revenue Increases	
	Nominal WACC	Discount Factor	Domestic Revenue at Dec 1/20 Rates	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Additional Revenue Associated with 2022/23 Rate Inc	Discounted Additional Revenue
2021/22	5.75%	1.000	$1 814	0.00%	0.00%	$0	$0	**3.60%**	1.09%	$20	$20	$20	$20
2022/23	5.75%	1.058	1 810	0.00%	0.00%	0	0	**1.00%**	3.80%	68	65	68	65
2023/24	5.75%	1.118	1 783	0.00%	0.00%	0	0	**1.00%**	5.31%	94	84	94	84
2024/25	5.75%	1.183	1 789	0.00%	0.00%	0	0	**2.00%**	7.80%	138	117	138	117
2025/26	5.75%	1.251	1 798	2.00%	2.00%	36	29	2.00%	9.95%	178	142	142	113
2026/27	5.75%	1.323	1 809	2.00%	4.04%	73	55	2.00%	12.15%	218	165	146	110
2027/28	5.75%	1.399	1 823	2.00%	6.12%	111	79	2.00%	14.39%	260	186	150	107
2028/29	5.75%	1.479	1 838	2.00%	8.24%	150	102	2.00%	16.68%	304	206	154	104
2029/30	5.75%	1.564	1 856	2.00%	10.41%	192	123	2.00%	19.02%	350	224	158	101
2030/31	5.75%	1.654	1 876	2.00%	12.62%	235	142	2.00%	21.40%	398	241	163	99
2031/32	5.75%	1.749	1 905	2.00%	14.87%	281	161	2.00%	23.82%	450	257	169	97
2032/33	5.75%	1.850	1 940	2.00%	17.17%	331	179	2.00%	26.30%	506	274	176	95
2033/34	5.75%	1.956	1 980	2.00%	19.51%	383	196	2.00%	28.83%	566	290	183	94
2034/35	5.75%	2.068	2 023	2.00%	21.90%	440	213	2.00%	31.40%	631	305	191	92
2035/36	5.75%	2.187	2 077	2.00%	24.34%	502	229	2.00%	34.03%	702	321	200	91
2036/37	5.75%	2.313	2 136	2.00%	26.82%	569	246	2.00%	36.71%	779	337	210	91
2037/38	5.75%	2.446	2 196	2.00%	29.36%	640	262	2.00%	39.45%	860	352	220	90
2038/39	5.75%	2.587	2 256	2.00%	31.95%	716	277	2.00%	42.23%	947	366	231	89
2039/40	5.75%	2.736	2 318	2.00%	34.59%	796	291	2.00%	45.08%	1 038	379	242	88
2040/41	5.75%	2.893	2 381	2.00%	37.28%	882	305	2.00%	47.98%	1 135	392	253	88
2041/42	5.75%	2.893	2 440	2.00%	40.02%	971	336	2.00%	50.94%	1 235	427	265	92
NPV							**$3 222**				**$5 149**		**$1 926**

In Millions of Dollars

	PUB 17d Scenario: 1% Proposed Rates in 2022/23 & 2023/24 with Jan 1, 2022 3.6% Interim Rate Increase in Additional				With Compounding Due To Projected Future Rate Increases				NPV of Revenue Increases	
	Annual Rate Increases	Effective Cumulative Rate Increases	Additional Domestic Revenue	Discounted Additional Domestic Revenue	Annual Rate Increase without Rate Increase in 2022/23	Effective Cumulative Rate Increase	Additional Domestic Revenue due to Compounding of Future Rate Increase	Discounted Additional Domestic Revenue due to Compounding of Future Rate Increase	Additional Revenue Associated with 2022/23 Rate Inc	Total Discounted Additional Domestic Revenue
2021/22	**3.60%**	1.09%	$20	$20	0.00%	0.00%	$0	$0	$20	$20
2022/23	**1.00%**	3.80%	68	65	0.00%	0.00%	0	0	68	65
2023/24	**1.00%**	5.31%	94	84	0.00%	0.00%	0	0	94	84
2024/25	**2.00%**	7.80%	138	117	0.00%	0.00%	0	0	138	117
2025/26	0.00%	7.80%	139	111	2.00%	2.00%	3	2	142	113
2026/27	0.00%	7.80%	140	106	2.00%	4.04%	6	4	146	110
2027/28	0.00%	7.80%	141	101	2.00%	6.12%	9	6	150	107
2028/29	0.00%	7.80%	142	96	2.00%	8.24%	12	8	154	104
2029/30	0.00%	7.80%	144	92	2.00%	10.41%	15	10	158	101
2030/31	0.00%	7.80%	145	88	2.00%	12.62%	18	11	163	99
2031/32	0.00%	7.80%	147	84	2.00%	14.87%	22	13	169	97
2032/33	0.00%	7.80%	150	81	2.00%	17.17%	26	14	176	95
2033/34	0.00%	7.80%	153	78	2.00%	19.51%	30	15	183	94
2034/35	0.00%	7.80%	157	76	2.00%	21.90%	34	17	191	92
2035/36	0.00%	7.80%	161	74	2.00%	24.34%	39	18	200	91
2036/37	0.00%	7.80%	165	71	2.00%	26.82%	44	19	210	91
2037/38	0.00%	7.80%	170	69	2.00%	29.36%	50	20	220	90
2038/39	0.00%	7.80%	175	68	2.00%	31.95%	56	22	231	89
2039/40	0.00%	7.80%	180	66	2.00%	34.59%	62	23	242	88
2040/41	0.00%	7.80%	184	64	2.00%	37.28%	69	24	253	88
2041/42	0.00%	7.80%	189	65	2.00%	40.02%	76	26	265	92
NPV				**$1 675**				**$251**		**$1 926**

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MFR 22 (Amended)

Prior references
PUB MFR 1, 2017/18 & 2018/19 GRA

Financial Information

Provide a financial forecast scenario that achieves a 75/25 debt-to-equity ratio by the end of the 20-year financial forecast, using equal annual rate increases. The scenario should set out

- **the financial ratios for each year; and**
- **supporting calculations on how the ratios were determined**

The 20-year Electric Operations projected financial statements and financial measures for the scenario described above are provided below. The supporting calculations of the financial measures are provided in MFR 23 (Amended).

The amended financial scenario requested in this MFR results in even annual rate increases from 2023/24 to 2041/42 of 1.59% and cumulative rate increases by the end of the forecast period are 34.96%. This scenario does not result in any years with financial losses, however beginning in 2025/26 the net debt increases in all but three of the remaining seventeen years of the forecast period. Net debt at March 31, 2042 is $23.7 billion, approximately $350 million higher than the net debt balance at March 31, 2022. The cumulative cash flow deficit between 2025/26 and 2041/42 totals $1.3 billion. While the debt ratio reaches 75% by the end of the forecast period, the cash flow metrics over much of the 20-year forecast period are not very strong. From 2025/26 to the end of the forecast period, the self-financing ratio averages 93%, the EBIT interest coverage ratio does not reach 1.20 until 2041/42 and the capital coverage ratio does not exceed 1.20 until 2039/40.

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1,875	1,847	1,853	1,863	1,874	1,888	1,904	1,922	1,943	1,973
additional	-	19	59	90	121	154	188	223	259	299
Extraprovincial	1,283	1,153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3,186	3,047	2,904	2,762	2,804	2,828	2,868	2,930	3,010	3,077
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	919	931	942	955	962	938
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	167	169	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2,621	2,684	2,696	2,749	2,780	2,832	2,884	2,931	2,984	2,984
Net Income before Net Movement in Reg. Deferral	565	363	209	13	24	(5)	(15)	(1)	25	93
Net Movement in Regulatory Deferral	190	106	77	118	114	62	57	50	4	(12)
Net Income	755	470	285	132	137	58	42	49	29	81
Net Income Attributable to:										
Manitoba Hydro	**751**	**464**	**279**	**125**	**130**	**51**	**35**	**41**	**20**	**71**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	470	285	132	137	58	42	49	29	81
Percent Increase	-	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
Cumulative Percent Increase	-	1.59%	3.21%	4.85%	6.51%	8.21%	9.93%	11.68%	13.45%	15.26%

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28,814	29,416	30,089	30,739	31,593	32,345	33,112	33,929	34,789	35,693
Accumulated Depreciation	(3,525)	(4,083)	(4,638)	(5,186)	(5,773)	(6,409)	(7,044)	(7,706)	(8,390)	(9,096)
Net Plant in Service	25,288	25,333	25,451	25,553	25,820	25,935	26,068	26,223	26,399	26,597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2,222	1,508	1,610	1,643	1,669	1,707	1,756	1,541	1,560	1,657
Goodwill and Intangible Assets	1,034	1,006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	29,014	28,359	28,514	28,634	28,734	28,866	29,025	28,942	29,114	29,385
Regulatory Deferral Balance	1,389	1,426	1,503	1,572	1,637	1,700	1,757	1,807	1,811	1,798
	30,403	29,785	30,017	30,206	30,371	30,566	30,782	30,749	30,925	31,184
LIABILITIES AND EQUITY										
Long-Term Debt	22,408	21,912	21,747	21,494	21,386	21,278	22,187	21,640	22,168	22,950
Current and Other Liabilities	3,931	3,389	3,440	3,742	3,861	4,086	3,332	3,778	3,376	2,748
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1,004	1,038
Retained Earnings	3,575	4,040	4,319	4,444	4,574	4,624	4,659	4,700	4,720	4,792
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30,236	29,687	29,920	30,157	30,371	30,566	30,782	30,749	30,925	31,184
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30,403	29,785	30,017	30,206	30,371	30,566	30,782	30,749	30,925	31,184

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Cash Receipts from Customers	3,174	3,035	2,891	2,748	2,790	2,812	2,848	2,910	2,988	3,055
Cash Paid to Suppliers and Employees	(1,049)	(1,044)	(1,099)	(1,116)	(1,121)	(1,142)	(1,162)	(1,178)	(1,203)	(1,203)
Interest Paid	(1,064)	(834)	(935)	(941)	(940)	(954)	(970)	(987)	(991)	(961)
Interest Received	24	15	10	8	6	4	5	2	2	1
Cash Provided by Operating Activities	1,084	1,172	867	699	735	721	721	746	796	893
FINANCING ACTIVITIES	21	(2)	(1)	(1)	(1)					
Proceeds from Long-Term Debt	657	350	750	920	1,170	1,360	1,590	550	1,190	780
Retirement of Long-Term Debt	(1,103)	(1,439)	(875)	(901)	(1,183)	(1,274)	(1,468)	(680)	(1,096)	(663)
Repayments from/(Advances to) External Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	234	235	236	237	238
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(234)	(235)	(236)	(237)	(238)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1,090)	(126)	18	(14)	86	122	(131)	94	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(630)	33	(24)	(5)	4	15	(250)	(8)	72
Cash at Beginning of Year	1,047	933	304	336	312	307	312	327	77	69
Cash at End of Year	933	304	336	312	307	312	327	77	69	141

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	755	470	285	132	137	58	42	49	29	81
Net Movement in Regulatory Deferral	(190)	(106)	(77)	(118)	(114)	(62)	(57)	(50)	(4)	12
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	909	900	886	906	919	931	942	955	962	938
Adjustments for Non-Cash Items	39	13	13	12	11	10	6	2	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	(6)	82	41	43	45	46	47	48	49	50
Interest Paid	(1,064)	(834)	(935)	(941)	(940)	(954)	(970)	(987)	(991)	(961)
Interest Received	24	15	10	8	6	4	5	2	2	1
Cash Provided by Operating Activities	1,084	1,172	867	699	735	721	721	746	796	893
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	1,170	1,360	1,590	550	1,190	780
Retirement of Long-Term Debt	(1,103)	(1,439)	(875)	(901)	(1,183)	(1,274)	(1,468)	(680)	(1,096)	(663)
Repayments from/(Advances to) Investment Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	234	235	236	237	238
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(234)	(235)	(236)	(237)	(238)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1,090)	(126)	18	(14)	86	122	(131)	94	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(630)	33	(24)	(5)	4	15	(250)	(8)	72
Cash at Beginning of Year	1,047	933	304	336	312	307	312	327	77	69
Cash at End of Year	933	304	336	312	307	312	327	77	69	141

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2,010	2,051	2,095	2,151	2,212	2,274	2,337	2,400	2,466	2,528
additional	341	386	434	486	543	603	667	734	805	878
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3,146	3,242	3,358	3,393	3,501	3,638	3,743	3,838	3,950	4,060
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	948	953	959	953	952	956	961	954	956	960
Depreciation and Amortization	797	824	851	878	908	945	984	1,016	1,055	1,095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	181	182	184	187	189	191	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3,048	3,126	3,196	3,277	3,374	3,509	3,596	3,642	3,739	3,824
Net Income before Net Movement in Reg. Deferral	99	117	161	116	126	129	147	196	211	236
Net Movement in Regulatory Deferral	(15)	(21)	(26)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	84	96	135	83	89	87	107	157	188	212
Net Income Attributable to:										
Manitoba Hydro	**73**	**84**	**122**	**71**	**76**	**75**	**92**	**140**	**170**	**193**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	84	96	135	83	89	87	107	157	188	212
Percent Increase	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
Cumulative Percent Increase	17.09%	18.95%	20.85%	22.77%	24.72%	26.70%	28.72%	30.77%	32.85%	34.96%

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36,672	37,680	38,768	39,910	41,171	42,495	43,923	45,182	46,564	48,003
Accumulated Depreciation	(9,818)	(10,579)	(11,346)	(12,134)	(12,963)	(13,841)	(14,753)	(15,690)	(16,642)	(17,650)
Net Plant in Service	26,853	27,101	27,422	27,776	28,208	28,655	29,170	29,491	29,922	30,354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	1,988	2,575	2,539	2,568	2,558	2,454	2,560	2,458	2,422	2,408
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	29,950	30,762	31,025	31,490	32,141	32,363	32,828	33,307	33,572	33,803
Regulatory Deferral Balance	1,783	1,763	1,736	1,704	1,666	1,625	1,585	1,546	1,523	1,499
	31,733	32,525	32,761	33,193	33,807	33,988	34,413	34,853	35,095	35,302
LIABILITIES AND EQUITY										
Long-Term Debt	23,332	23,856	23,543	23,786	23,802	23,716	23,980	23,928	23,842	23,624
Current and Other Liabilities	2,768	2,877	3,151	3,075	3,316	3,477	3,428	3,570	3,694	3,891
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1,113	1,189	1,342	1,538	1,821	1,853	1,973	2,184	2,218	2,254
Retained Earnings	4,865	4,950	5,072	5,143	5,219	5,293	5,385	5,525	5,695	5,889
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31,733	32,525	32,761	33,193	33,807	33,988	34,413	34,853	35,095	35,302
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31,733	32,525	32,761	33,193	33,807	33,988	34,413	34,853	35,095	35,302

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Cash Receipts from Customers	3,123	3,218	3,331	3,364	3,468	3,602	3,706	3,798	3,908	4,016
Cash Paid to Suppliers and Employees	(1,231)	(1,276)	(1,313)	(1,371)	(1,440)	(1,531)	(1,574)	(1,593)	(1,649)	(1,687)
Interest Paid	(975)	(983)	(992)	(990)	(996)	(1,002)	(997)	(1,003)	(1,005)	(1,003)
Interest Received	6	4	5	6	5	4	5	6	5	4
Cash Provided by Operating Activities	923	962	1,031	1,008	1,037	1,074	1,140	1,208	1,259	1,330
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	360	570	(40)	390	350	360	600	370	400	400
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) External Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	239	241	247	246	248	250	250	252	252	252
Sinking Fund Investment Purchases	(239)	(241)	(247)	(246)	(248)	(250)	(250)	(252)	(252)	(252)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	358	588	(91)	113	198	20	149	29	(28)	(91)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1,010)	(1,109)	(1,270)	(1,517)	(1,218)	(1,294)	(1,539)	(1,297)	(1,286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1,001)	(1,117)	(1,271)	(1,223)	(1,209)	(1,361)	(1,290)	(1,276)
Net Increase (Decrease) in Cash	304	561	(61)	4	(36)	(129)	80	(125)	(59)	(37)
Cash at Beginning of Year	141	445	1,006	945	949	913	784	864	740	681
Cash at End of Year	445	1,006	945	949	913	784	864	740	681	644

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
Amended MFR 22
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	84	96	135	83	89	87	107	157	188	212
Net Movement in Regulatory Deferral	15	21	26	33	37	42	40	39	23	24
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1,016	1,055	1,095
Net Finance Expense	948	953	959	953	952	956	961	954	956	960
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(13)	(16)	(17)	(20)	(23)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(975)	(983)	(992)	(990)	(996)	(1,002)	(997)	(1,003)	(1,005)	(1,003)
Interest Received	6	4	5	6	5	4	5	6	5	4
Cash Provided by Operating Activities	923	962	1,031	1,008	1,037	1,074	1,140	1,208	1,259	1,330
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	360	570	(40)	390	350	360	600	370	400	400
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	239	241	247	246	248	250	250	252	252	252
Sinking Fund Investment Purchases	(239)	(241)	(247)	(246)	(248)	(250)	(250)	(252)	(252)	(252)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	358	588	(91)	113	198	20	149	29	(28)	(91)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1,010)	(1,109)	(1,270)	(1,517)	(1,218)	(1,294)	(1,539)	(1,297)	(1,286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1,001)	(1,117)	(1,271)	(1,223)	(1,209)	(1,361)	(1,290)	(1,276)
Net Increase (Decrease) in Cash	304	561	(61)	4	(36)	(129)	80	(125)	(59)	(37)
Cash at Beginning of Year	141	445	1,006	945	949	913	784	864	740	681
Cash at End of Year	445	1,006	945	949	913	784	864	740	681	644

KEY FINANCIAL MEASURES

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
Amended MFR 22

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%	1.59%
Cumulative Rate Increases	0.00%	1.59%	3.21%	4.85%	6.51%	8.21%	9.93%	11.68%	13.45%	15.26%	17.09%	18.95%	20.85%	22.77%	24.72%	26.70%	28.72%	30.77%	32.85%	34.96%
Net Income/(Loss)	$751	$464	$279	$125	$130	$51	$35	$41	$20	$71	$73	$84	$122	$71	$76	$75	$92	$140	$170	$193
Net Income/(Loss) before Net Movement in Reg. Deferral	$565	$363	$209	$13	$24	($5)	($15)	($1)	$25	$93	$99	$117	$161	$116	$126	$129	$147	$196	$211	$236
Retained Earnings	$3 575	$4 040	$4 319	$4 444	$4 574	$4 624	$4 659	$4 700	$4 720	$4 792	$4 865	$4 950	$5 072	$5 143	$5 219	$5 293	$5 385	$5 525	$5 695	$5 889
Total Equity	$4 030	$4 506	$4 862	$5 011	$5 175	$5 267	$5 339	$5 410	$5 460	$5 565	$5 713	$5 873	$6 150	$6 419	$6 779	$6 887	$7 098	$7 450	$7 655	$7 883
Net Debt	$22 963	$22 533	$22 362	$22 415	$22 403	$22 485	$22 590	$22 708	$22 812	$22 859	$22 917	$22 949	$22 924	$23 037	$23 276	$23 431	$23 504	$23 664	$23 699	$23 650
Change in Net Debt - Inc/(Dec)	($330)	($430)	($172)	$54	($13)	$82	$105	$119	$104	$47	$58	$32	($25)	$114	$239	$154	$74	$159	$35	($49)
Cash Provided by Operating Activities	$1 084	$1 172	$867	$699	$735	$721	$721	$746	$796	$893	$923	$962	$1 031	$1 008	$1 037	$1 074	$1 140	$1 208	$1 259	$1 330
Cash Used for Investing Activities	($774)	($711)	($708)	($741)	($725)	($803)	($827)	($865)	($898)	($937)	($977)	($989)	($1 001)	($1 117)	($1 271)	($1 223)	($1 209)	($1 361)	($1 290)	($1 276)
Cash Surplus/(Deficit)	$310	$460	$158	($42)	$9	($82)	($106)	($119)	($102)	($44)	($54)	($27)	$30	($109)	($234)	($149)	($69)	($153)	($31)	$54
Self Financing Ratio	140%	165%	122%	94%	101%	90%	87%	86%	89%	95%	95%	97%	103%	90%	82%	88%	94%	89%	98%	104%
Cash Flow to Net Debt	4.7%	5.2%	3.9%	3.1%	3.3%	3.2%	3.2%	3.3%	3.5%	3.9%	4.0%	4.2%	4.5%	4.4%	4.5%	4.6%	4.9%	5.1%	5.3%	5.6%
Net Finance Expense	$909	$900	$886	$906	$919	$931	$942	$955	$962	$938	$948	$953	$959	$953	$952	$956	$961	$954	$956	$960
Debt Ratio	85%	83%	82%	82%	81%	81%	81%	81%	81%	80%	80%	80%	79%	78%	77%	77%	77%	76%	76%	75%
Interest Paid	$1 064	$834	$935	$941	$940	$954	$970	$987	$991	$961	$975	$983	$992	$990	$996	$1 002	$997	$1 003	$1 005	$1 003
EBIT Interest Coverage Ratio	1.80	1.50	1.31	1.13	1.14	1.05	1.04	1.04	1.02	1.07	1.08	1.09	1.12	1.07	1.08	1.08	1.09	1.14	1.17	1.20
EBITDA Interest Coverage Ratio	2.48	2.21	2.05	1.89	1.91	1.84	1.84	1.87	1.89	2.00	2.03	2.07	2.14	2.13	2.16	2.20	2.26	2.34	2.40	2.47
Capital Coverage Ratio	2.26	2.22	1.59	1.16	1.16	1.02	0.98	0.97	0.98	1.05	1.04	1.07	1.12	1.09	1.11	1.13	1.17	1.23	1.26	1.30

REFERENCE:

Appendix 4.1 (Amended)

PREAMBLE TO IR (IF ANY):

Subclause 39.1(1) of The Manitoba Hydro Act requires Manitoba Hydro to achieve a debt-to-capitalization ratio of 80% by 2035 and 70% by 2040. Appendix 4.1 (Amended) achieves a debt-to-capitalization ratio of 76% by 2035 and 70% by 2040.

QUESTION:

a) File version of the financial forecast that achieves a debt-to-capitalization ratio of 80% in 2035 through equal annual rate increases until that time (i.e., one that meets the Bill 36 deadline).
b) Re-file Figure 18 from Appendix 4.1.1 to include this alternate scenario.

RESPONSE:

a) As indicated in Tab 4 (Amended), Manitoba Hydro interprets the 2034/35 target date as the latest date for the achievement of the 80% debt ratio target. Manitoba Hydro also interprets the 2039/40 target date as the latest date for the achievement of the 70% debt ratio target.

The requested scenario that achieves a debt ratio of 80% in 2034/35 results in even annual rate increases from 2022/23 to 2034/35 of 1.43% followed by 2.0% annual rate increases thereafter to the end of the planning horizon.

However, the 70% debt ratio target is not achieved by the 2039/40 target date under this scenario with the projected debt ratio in 2039/40 being 78%.

This scenario results in near break-even earnings over the twelve-year period 2027/28 through 2038/39. Beginning in 2025/26, cash deficits are projected in all but the last year of the forecast totaling $1.8 billion, which results in a similar increase to the net debt balance over the same forecast period. Under this scenario, annual earnings are not sufficient to generate the surplus cash flow necessary to minimize debt growth and increase equity to meet the 70% debt ratio target by 2039/40.

In order to improve the debt ratio from 80% in 2034/35 to 70% in 2039/40, annual rate increases of roughly 7.0% (3.5 times the projected inflationary rate cap of 2%) would be required from 2035/36 through 2039/40 in violation of the rate cap in *The Manitoba Hydro Act*.

Financial statements and the summary of key financial measures for the requested scenario are found below:

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1,875	1,847	1,853	1,863	1,874	1,888	1,904	1,922	1,943	1,973
additional	-	17	53	80	108	137	167	199	231	266
Extraprovincial	1,283	1,153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3,186	3,045	2,898	2,753	2,791	2,811	2,848	2,906	2,981	3,045
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	907	920	933	944	960	966	945
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	167	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2,621	2,684	2,696	2,750	2,782	2,834	2,886	2,936	2,989	2,991
Net Income before Net Movement in Reg. Deferral	565	361	202	3	10	(23)	(38)	(29)	(7)	54
Net Movement in Regulatory Deferral	190	106	77	118	114	62	57	50	4	(12)
Net Income	755	468	279	121	123	40	20	21	(4)	41
Net Income Attributable to:										
Manitoba Hydro	**751**	**463**	**273**	**115**	**116**	**33**	**13**	**12**	**(12)**	**32**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	468	279	121	123	40	20	21	(4)	41
Percent Increase	0.0%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Cumulative Percent Increase	0.0%	1.4%	2.9%	4.3%	5.8%	7.3%	8.9%	10.4%	12.0%	13.6%

Manitoba Hydro 2023/24 & 2024/25 General Rate Application
PUB/MH I-20a-b

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28,814	29,416	30,089	30,739	31,593	32,345	33,112	33,929	34,789	35,693
Accumulated Depreciation	(3,525)	(4,083)	(4,638)	(5,186)	(5,773)	(6,409)	(7,044)	(7,706)	(8,390)	(9,096)
Net Plant in Service	25,288	25,333	25,451	25,553	25,820	25,935	26,068	26,223	26,399	26,597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2,222	1,506	1,602	1,826	1,636	1,657	1,683	1,641	1,627	1,683
Goodwill and Intangible Assets	1,034	1,006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	29,014	28,357	28,506	28,816	28,700	28,817	28,952	29,042	29,181	29,411
Regulatory Deferral Balance	1,389	1,426	1,503	1,572	1,637	1,700	1,757	1,807	1,811	1,798
	30,403	29,783	30,009	30,389	30,338	30,517	30,709	30,849	30,992	31,210
LIABILITIES AND EQUITY										
Long-Term Debt	22,408	21,912	21,747	21,694	21,386	21,278	22,187	21,840	22,368	23,150
Current and Other Liabilities	3,931	3,389	3,440	3,743	3,861	4,087	3,331	3,779	3,376	2,747
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1,004	1,038
Retained Earnings	3,575	4,038	4,310	4,425	4,541	4,574	4,587	4,599	4,587	4,619
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30,236	29,685	29,911	30,340	30,338	30,517	30,709	30,849	30,992	31,210
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30,403	29,783	30,009	30,389	30,338	30,517	30,709	30,849	30,992	31,210

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	755	468	279	121	123	40	20	21	(4)	41
Net Movement in Regulatory Deferral	(190)	(106)	(77)	(118)	(114)	(62)	(57)	(50)	(4)	12
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	909	900	886	907	920	933	944	960	966	945
Adjustments for Non-Cash Items	39	13	13	12	11	10	6	2	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	(6)	82	41	43	45	46	47	48	49	50
Interest Paid	(1,064)	(834)	(935)	(941)	(943)	(954)	(974)	(990)	(996)	(969)
Interest Received	24	15	10	9	6	4	5	2	1	1
Cash Provided by Operating Activities	1,084	1,170	860	690	719	705	698	720	762	852
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	1,120	970	1,360	1,590	750	1,190	780
Retirement of Long-Term Debt	(1,103)	(1,439)	(875)	(901)	(1,183)	(1,274)	(1,468)	(680)	(1,096)	(663)
Repayments from/(Advances to) Investment Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	236	234	235	236	238	239
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(236)	(234)	(235)	(236)	(238)	(239)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1,090)	(126)	218	(214)	86	122	69	94	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(632)	26	167	(221)	(12)	(8)	(76)	(42)	31
Cash at Beginning of Year	1,047	933	302	328	495	274	262	254	178	136
Cash at End of Year	933	302	328	495	274	262	254	178	136	167
Cash at End of Year	933	302	328	495	274	262	254	178	136	167

Manitoba Hydro 2023/24 & 2024/25 General Rate Application
PUB/MH I-20a-b

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2,010	2,051	2,095	2,151	2,212	2,274	2,337	2,400	2,466	2,528
additional	303	343	385	446	512	582	657	736	820	908
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3,109	3,199	3,309	3,353	3,470	3,617	3,733	3,840	3,965	4,089
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	955	965	974	968	969	975	981	976	980	984
Depreciation and Amortization	797	824	851	878	908	945	984	1,016	1,055	1,095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	181	182	184	187	189	192	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3,055	3,137	3,211	3,292	3,392	3,528	3,617	3,663	3,763	3,848
Net Income before Net Movement in Reg. Deferral	54	62	99	61	78	89	116	177	202	241
Net Movement in Regulatory Deferral	(15)	(21)	(26)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	39	42	72	28	41	47	76	138	180	218
Net Income Attributable to:										
Manitoba Hydro	**29**	**30**	**60**	**16**	**27**	**34**	**61**	**120**	**161**	**198**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	0	0	0	0	0	0	0	0	0	0
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	39	42	72	28	41	47	76	138	180	218
Percent Increase	1.4%	1.4%	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cumulative Percent Increase	15.2%	16.8%	18.5%	20.9%	23.3%	25.8%	28.3%	30.9%	33.5%	36.1%

Manitoba Hydro 2023/24 & 2024/25 General Rate Application
PUB/MH I-20a-b

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36,672	37,680	38,768	39,910	41,171	42,495	43,923	45,182	46,564	48,003
Accumulated Depreciation	(9,818)	(10,579)	(11,346)	(12,134)	(12,963)	(13,841)	(14,753)	(15,690)	(16,642)	(17,650)
Net Plant in Service	26,853	27,101	27,422	27,776	28,208	28,655	29,170	29,491	29,922	30,354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	1,966	2,699	2,600	2,571	2,512	2,568	2,638	2,514	2,469	2,460
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	29,928	30,886	31,086	31,493	32,095	32,477	32,906	33,363	33,619	33,855
Regulatory Deferral Balance	1,783	1,763	1,736	1,704	1,666	1,625	1,585	1,546	1,523	1,499
	31,711	32,649	32,822	33,196	33,761	34,102	34,491	34,909	35,142	35,354
LIABILITIES AND EQUITY										
Long-Term Debt	23,532	24,256	23,943	24,186	24,202	24,316	24,580	24,528	24,442	24,224
Current and Other Liabilities	2,764	2,873	3,147	3,067	3,308	3,469	3,414	3,554	3,679	3,875
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1,113	1,189	1,342	1,538	1,821	1,853	1,973	2,184	2,218	2,254
Retained Earnings	4,648	4,678	4,738	4,753	4,781	4,815	4,876	4,996	5,158	5,356
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31,711	32,649	32,822	33,196	33,761	34,102	34,491	34,909	35,142	35,354
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31,711	32,649	32,822	33,196	33,761	34,102	34,491	34,909	35,142	35,354

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH I-20a Scenario
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	39	42	72	28	41	47	76	138	180	218
Net Movement in Regulatory Deferral	15	21	26	33	37	42	40	39	23	24
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1,016	1,055	1,095
Net Finance Expense	955	965	974	968	969	975	981	976	980	984
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(13)	(16)	(17)	(20)	(23)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(983)	(996)	(1,009)	(1,007)	(1,013)	(1,019)	(1,023)	(1,025)	(1,031)	(1,029)
Interest Received	4	5	7	5	5	3	4	4	7	6
Cash Provided by Operating Activities	875	908	968	950	988	1,034	1,103	1,186	1,250	1,335
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	360	770	(40)	390	350	560	600	370	400	400
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	241	243	251	250	252	254	256	258	258	258
Sinking Fund Investment Purchases	(241)	(243)	(251)	(250)	(252)	(254)	(256)	(258)	(258)	(258)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	358	788	(91)	113	198	220	149	29	(28)	(91)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1,010)	(1,109)	(1,270)	(1,517)	(1,218)	(1,294)	(1,539)	(1,297)	(1,286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1,001)	(1,117)	(1,271)	(1,223)	(1,209)	(1,361)	(1,290)	(1,276)
Net Increase (Decrease) in Cash	256	707	(124)	(54)	(85)	31	44	(146)	(68)	(31)
Cash at Beginning of Year	167	423	1,130	1,006	952	867	898	942	795	728
Cash at End of Year	423	1,130	1,006	952	867	898	942	795	728	696
Cash at End of Year	423	1,130	1,006	952	867	898	942	795	728	696

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
PUB/MH I-20a Scenario

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Rate Increases	0.00%	1.43%	2.87%	4.34%	5.83%	7.33%	8.86%	10.42%	11.99%	13.59%	15.21%	16.85%	18.52%	20.89%	23.30%	25.77%	28.29%	30.85%	33.47%	36.14%
Net Income/(Loss)	$751	$463	$273	$115	$116	$33	$13	$12	($12)	$32	$29	$30	$60	$16	$27	$34	$61	$120	$161	$198
Net Income/(Loss) before Net Movement in Reg. Deferral	$565	$361	$202	$3	$10	($23)	($38)	($29)	($7)	$54	$54	$62	$99	$61	$78	$89	$116	$177	$202	$241
Retained Earnings	$3,575	$4,038	$4,310	$4,425	$4,541	$4,574	$4,587	$4,599	$4,587	$4,619	$4,648	$4,678	$4,738	$4,753	$4,781	$4,815	$4,876	$4,996	$5,158	$5,356
Total Equity	$4,030	$4,504	$4,854	$4,992	$5,142	$5,216	$5,266	$5,309	$5,326	$5,392	$5,495	$5,602	$5,816	$6,030	$6,341	$6,408	$6,589	$6,921	$7,117	$7,351
Net Debt	$22,963	$22,535	$22,370	$22,433	$22,436	$22,534	$22,663	$22,808	$22,946	$23,033	$23,139	$23,225	$23,262	$23,434	$23,722	$23,917	$24,027	$24,208	$24,252	$24,198
Change in Net Debt - Inc/(Dec)	($330)	($428)	($165)	$63	$3	$98	$128	$145	$137	$88	$106	$86	$37	$172	$288	$195	$110	$181	$44	($54)
Cash Surplus/(Deficit)	$310	$459	$152	($51)	($7)	($98)	($130)	($146)	($136)	($85)	($102)	($81)	($33)	($167)	($283)	($189)	($105)	($175)	($40)	$59
Self Financing Ratio	140%	164%	121%	93%	99%	88%	84%	83%	85%	91%	90%	92%	97%	85%	78%	85%	91%	87%	97%	105%
Cash Flow to Net Debt	$0.0	$0.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1	$0.1
Net Finance Expense	$909	$900	$886	$907	$920	$933	$944	$960	$966	$945	$955	$965	$974	$968	$969	$975	$981	$976	$980	$984
Debt Ratio	85%	83%	82%	82%	81%	81%	81%	81%	81%	81%	81%	81%	80%	80%	79%	79%	78%	78%	77%	77%
Interest Paid	$1,064	$834	$935	$941	$943	$954	$974	$990	$996	$969	$983	$996	$1,009	$1,007	$1,013	$1,019	$1,023	$1,025	$1,031	$1,029
EBIT Interest Coverage Ratio	1.80	1.50	1.30	1.12	1.12	1.03	1.01	1.01	0.99	1.03	1.03	1.03	1.06	1.02	1.03	1.03	1.06	1.12	1.16	1.20
EBITDA Interest Coverage Ratio	2.48	2.20	2.04	1.88	1.89	1.82	1.81	1.83	1.85	1.95	1.97	2.00	2.06	2.05	2.09	2.14	2.20	2.29	2.36	2.44
Capital Coverage Ratio	2.26	2.21	1.57	1.15	1.13	0.99	0.95	0.93	0.94	1.01	0.99	1.01	1.06	1.02	1.06	1.09	1.13	1.21	1.25	1.30

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TABLE 4 - ECONOMIC INDICATORS - FISCAL YEAR

SPRING 2022

	MANITOBA					CANADA			US
Year	Real GDP % chge	CPI % chge	Real Disposable Income % chge	Population '000s	Residential Customers '000s	Real GDP % chge	CPI % chge	GDP Price Deflator % chge	GDP Price Deflator % chge
2016/17	1.9	1.4	0.7	1,319	483	1.4	1.5	1.5	1.3
2017/18	2.9	1.7	2.5	1,339	489	3.2	1.6	2.2	2.0
2018/19	1.6	2.4	(1.2)	1,357	495	2.5	2.2	1.4	2.4
2019/20	(0.9)	2.3	2.5	1,373	502	1.3	2.0	1.5	1.7
2020/21	(2.4)	0.3	8.6	1,381	509	(5.0)	0.6	2.0	1.4
2021/22	4.2	4.6	(2.6)	1,386	513	5.6	4.5	7.5	4.4
Forecast									
2022/23	3.4	3.3	(2.0)	1,398	519	3.6	3.5	2.7	4.1
2023/24	2.4	2.3	1.4	1,412	524	2.7	2.3	1.9	2.5
2024/25	1.9	2.1	1.3	1,428	530	1.8	2.1	1.8	2.2
2025/26	1.8	2.0	1.5	1,444	536	1.7	2.0	1.9	2.3
2026/27	1.6	2.0	2.0	1,460	542	1.7	2.1	1.9	2.3
2027/28	1.5	2.1	2.7	1,476	548	1.7	2.0	1.9	2.3
2028/29	1.5	2.1	1.7	1,492	554	1.6	2.1	1.8	2.3
2029/30	1.5	2.1	1.7	1,509	561	1.6	2.1	1.8	2.3
2030/31	1.5	2.1	1.5	1,525	567	1.6	2.1	1.8	2.3
2031/32	1.5	2.1	1.4	1,542	573	1.6	2.1	1.8	2.3
2032/33	1.5	2.1	1.4	1,558	579	1.6	2.1	1.8	2.3
2033/34	1.5	2.1	1.6	1,575	586	1.6	2.1	1.8	2.3
2034/35	1.5	2.1	1.6	1,592	592	1.6	2.1	1.8	2.3
2035/36	1.5	2.1	1.5	1,609	598	1.6	2.1	1.8	2.3
2036/37	1.5	2.1	1.4	1,626	604	1.6	2.1	1.8	2.3
2037/38	1.5	2.1	1.4	1,644	610	1.6	2.1	1.8	2.3
2038/39	1.5	2.1	1.3	1,661	616	1.6	2.1	1.8	2.3
2039/40	1.5	2.1	1.3	1,678	622	1.6	2.1	1.8	2.3
2040/41	1.5	2.1	1.3	1,695	628	1.6	2.1	1.8	2.3
2041/42	1.5	2.1	1.3	1,712	634	1.6	2.1	1.8	2.3

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MFR 68 (Amended)

Prior references
PUB MFR 55, 2017/18 & 2018/19 GRA

Finance Expense-Debt Levels

A schedule that details, for the last five fiscal years through the 20 year current forecast, a summary of total interest and finance cost incurred or forecasted by major category (debt charges, foreign currency gains/losses etc.) both capitalized and expensed.

Figure 1 below conforms to the categorization of finance expense for the fiscal years 2017/18 to 2041/42 as shown in Tab 3 - Appendix 3.2. This schedule groups the components of finance expense into three primary categories:

1. Total Interest on Short & Long Term Debt;
2. Interest Allocated to Construction; and,
3. Sinking Fund and Other Adjustments.

The Corporation's net interest expense is the total interest on short and long term debt minus the interest allocated to construction.

For further information on Finance Expense, please see Tab 3 - Appendix 3.2 of this Application.

Figure 1 Finance Expense by Category

MANITOBA HYDRO
Summary of Total Finance Expense
($ millions CAD)

	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030
Interest on Short & Long Term Debt													
Gross Interest	773	808	856	910	857	863	835	835	836	836	849	871	878
Provincial Guarantee Fee	154	182	202	218	224	116	115	112	112	112	112	112	113
Amortization of (Premiums), Discounts, and Transaction Costs	2	4	2	(6)	(6)	(6)	(3)	(1)	1	2	-	(2)	(1)
Intercompany Interest Receivable	(15)	(15)	(16)	(16)	(16)	(20)	(23)	(24)	(25)	(28)	(29)	(30)	(31)
Total Interest on Short & Long Term Debt	**914**	**979**	**1,044**	**1,106**	**1,059**	**953**	**924**	**922**	**924**	**922**	**932**	**951**	**959**
Interest Allocated to Construction	**(343)**	**(283)**	**(299)**	**(346)**	**(82)**	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	17	30	38	33	29	4	(1)	(17)	(1)	6	5	2	-
Revaluation of Dual Currency Bonds	1	1	1	1	2	2	2	2	1	-	-	-	-
Corporate Allocation	(18)	(18)	(18)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(14)
Other Amortization	30	31	31	29	39	37	37	36	36	35	34	33	33
Total Finance Expense	**601**	**740**	**797**	**805**	**1,029**	**960**	**925**	**905**	**926**	**931**	**941**	**952**	**961**

	Forecast 2031	Forecast 2032	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042
Interest on Short & Long Term Debt												
Gross Interest	878	853	862	864	867	856	851	845	834	830	817	803
Provincial Guarantee Fee	113	113	113	113	115	114	114	114	113	112	111	110
Amortization of (Premiums), Discounts, and Transaction Costs	1	2	2	3	3	3	3	3	3	3	2	2
Intercompany Interest Receivable	(31)	(32)	(32)	(32)	(33)	(33)	(33)	(32)	(33)	(33)	(32)	(32)
Total Interest on Short & Long Term Debt	**961**	**936**	**945**	**948**	**952**	**940**	**935**	**930**	**917**	**912**	**898**	**883**
Interest Allocated to Construction	**(18)**	**(18)**	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Other Amortization	32	31	31	30	30	30	29	29	29	29	29	29
Total Finance Expense	**963**	**937**	**946**	**947**	**951**	**937**	**922**	**918**	**910**	**897**	**884**	**875**

MFR 68

Prior references
PUB MFR 55, 2017/18 & 2018/19 GRA

Finance Expense-Debt Levels

A schedule that details, for the last five fiscal years through the 20 year current forecast, a summary of total interest and finance cost incurred or forecasted by major category (debt charges, foreign currency gains/losses etc.) both capitalized and expensed.

Figure 1 below for the fiscal years 2017/18 to 2041/42 conforms to the categorization of finance expense as shown in the Application in Appendix 3.2. This schedule groups the components of finance expense into three primary categories:

1. Total Interest on Short & Long Term Debt;
2. Interest Allocated to Construction; and,
3. Sinking Fund and Other Adjustments.

The Corporation's net interest expense is the total interest on short & long term debt minus the interest allocated to construction.

For a fuller discussion of Finance Expense, please see Appendix 3.2 of this Application.

Figure 1 Finance Expense by Category

MANITOBA HYDRO
Summary of Total Finance Expense
($ thousands CAD)

	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030
Interest on Short & Long Term Debt													
Gross Interest	773	808	856	910	857	865	846	846	852	865	881	901	906
Provincial Guarantee Fee	154	182	202	218	224	232	229	228	228	229	229	230	232
Amortization of (Premiums), Discounts, and Transaction Costs	2	4	2	(6)	(6)	(6)	(3)	(1)	1	2	-	(2)	(1)
Intercompany Interest Receivable	(15)	(15)	(16)	(16)	(16)	(20)	(23)	(24)	(26)	(28)	(29)	(31)	(32)
Total Interest on Short & Long Term Debt	**914**	**979**	**1,044**	**1,106**	**1,059**	**1,071**	**1,049**	**1,049**	**1,055**	**1,068**	**1,081**	**1,098**	**1,105**
Interest Allocated to Construction	**(343)**	**(283)**	**(299)**	**(346)**	**(82)**	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	17	30	38	33	29	4	(1)	(17)	(1)	6	5	2	-
Revaluation of Dual Currency Bonds	1	1	1	1	2	2	2	2	1	-	-	-	-
Corporate Allocation	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(15)
Other Amortization	30	31	31	29	39	37	37	36	36	35	34	33	33
Total Finance Expense	**601**	**740**	**797**	**805**	**1,029**	**1,077**	**1,049**	**1,031**	**1,056**	**1,076**	**1,089**	**1,098**	**1,106**

	Forecast 2031	Forecast 2032	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042
Interest on Short & Long Term Debt												
Gross Interest	912	878	880	878	882	871	867	854	831	824	812	801
Provincial Guarantee Fee	232	231	230	228	235	229	228	227	225	223	221	218
Amortization of (Premiums), Discounts, and Transaction Costs	1	2	2	3	3	3	3	3	3	3	2	2
Intercompany Interest Receivable	(33)	(33)	(34)	(34)	(35)	(35)	(36)	(36)	(36)	(37)	(37)	(37)
Total Interest on Short & Long Term Debt	**1,112**	**1,078**	**1,078**	**1,075**	**1,085**	**1,068**	**1,062**	**1,048**	**1,023**	**1,013**	**998**	**984**
Interest Allocated to Construction	**(18)**	**(18)**	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Other Amortization	32	31	31	30	30	30	29	29	29	29	29	29
Total Finance Expense	**1,114**	**1,079**	**1,079**	**1,074**	**1,084**	**1,065**	**1,049**	**1,036**	**1,016**	**998**	**984**	**976**

REFERENCE:

Tab 4 Appendix 4.5 pg. 11 Chart 3, MFR 68

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please provide a table of supporting data points for the update to Chart 3. Provide the information in Excel if available.

b) Please provide a comparison of finance expense detail in MFR 68 based on the original application and the December 9th update and provide commentary on the changes. Please provide the information in excel if available.

RESPONSE:

a) Please see the following table of supporting data points for the update to Chart 3 in Appendix 4.5 Amended.

PUB-MH I-24 a)

MANITOBA HYDRO
Consolidated Operations
Finance Expense

Amended Financial Forecast Scenario
(in $ millions Canadian Dollars)

Finance Expense	Actual 2022	Forecast 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Total Finance Expense	1,027	1,001	969	952	973	981	993	1,005	1,011	1,013	989
Interest Allocated to Construction	82	19	20	21	17	16	13	17	18	18	18

b) The following table shows the difference in finance expense between the December 9th update and the original application. Over the 20-year Financial Forecast Scenario the direct savings from the reduction of the fees to government is estimated to total approximately $4 billion. While both scenarios project cumulative rate increases in the 45% range by the end of the planning horizon, the smoothed 2.0% rate path in the Amended Financial Forecast Scenario is projected to collect $3.8 billion less additional rate revenue from customers over the 20-year forecast period. Under the Amended

Financial Forecast Scenario, accelerated debt retirement results in lower net debt through 2033/34. By 2041/42, the net debt balances are almost identical. As a result, less debt is issued in the first decade and more debt is issued in the second decade in the Amended Financial Forecast Scenario.

Over the 20-year Financial Forecast Scenario, the net impact of these amendments will result in savings of approximately $2.6 billion in Electric finance expense. Under the Amended Financial Forecast Scenario, gross interest is lower for the first sixteen years owing mostly to lower net debt balances in the first decade but shifts to higher for the last four years with more debt being issued in the second decade. There is upward pressure on finance expense as maturing debt is currently projected to be refinanced at higher interest rates, with refinanced debt in second decade at slightly higher rates on average.

PUB-MH I-24 b)

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
Amended Financial Forecast Scenario less Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	(2)	(11)	(11)	(16)	(29)	(32)	(30)	(28)	(34)	(25)
Provincial Guarantee Fee	(116)	(114)	(116)	(116)	(117)	(117)	(118)	(119)	(119)	(118)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	-	-	-	1	-	-	1	1	2	1
Total Interest on Short & Long Term Debt	**(118)**	**(125)**	**(127)**	**(131)**	**(146)**	**(149)**	**(147)**	**(146)**	**(151)**	**(142)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	1	1	1	1	1	1	1	1	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(117)**	**(124)**	**(126)**	**(130)**	**(145)**	**(148)**	**(146)**	**(145)**	**(151)**	**(142)**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042
Interest on Short & Long Term Debt										
Gross Interest	(18)	(14)	(15)	(15)	(16)	(9)	3	6	5	2
Provincial Guarantee Fee	(117)	(115)	(120)	(115)	(114)	(113)	(112)	(111)	(110)	(108)
Amortization of (Premiums), Discounts, and Transaction Costs	-	-	-	-	-	-	-	-	-	-
Intercompany Interest Receivable	2	2	2	2	3	4	3	4	5	5
Total Interest on Short & Long Term Debt	**(133)**	**(127)**	**(133)**	**(128)**	**(127)**	**(118)**	**(106)**	**(101)**	**(100)**	**(101)**
Interest Allocated to Construction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	-	-	-	-	-	-	-	-	-	-
Other Amortization	-	-	-	-	-	-	-	-	-	-
Total Finance Expense	**(133)**	**(127)**	**(133)**	**(128)**	**(127)**	**(118)**	**(106)**	**(101)**	**(100)**	**(101)**

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
Amended Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	863	835	835	836	836	849	871	878	878	853
Provincial Guarantee Fee	116	115	112	112	112	112	112	113	113	113
Amortization of (Premiums), Discounts, and Transaction Costs	(6)	(3)	(1)	1	2	-	(2)	(1)	1	2
Intercompany Interest Receivable	(20)	(23)	(24)	(25)	(28)	(29)	(30)	(31)	(31)	(32)
Total Interest on Short & Long Term Debt	**953**	**924**	**922**	**924**	**922**	**932**	**951**	**959**	**961**	**936**
Interest Allocated to Construction	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**	**(18)**	**(18)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	4	(1)	(17)	(1)	6	5	2	-	-	-
Revaluation of Dual Currency Bonds	2	2	2	1	-	-	-	-	-	-
Corporate Allocation	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(14)	(12)	(12)
Other Amortization	37	37	36	36	35	34	33	33	32	31
Total Finance Expense	**960**	**925**	**905**	**926**	**931**	**941**	**952**	**961**	**963**	**937**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042
Interest on Short & Long Term Debt										
Gross Interest	862	864	867	856	851	845	834	830	817	803
Provincial Guarantee Fee	113	113	115	114	114	114	113	112	111	110
Amortization of (Premiums), Discounts, and Transaction Costs	2	3	3	3	3	3	3	3	2	2
Intercompany Interest Receivable	(32)	(32)	(33)	(33)	(33)	(32)	(33)	(33)	(32)	(32)
Total Interest on Short & Long Term Debt	**945**	**948**	**952**	**940**	**935**	**930**	**917**	**912**	**898**	**883**
Interest Allocated to Construction	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Other Amortization	31	30	30	30	29	29	29	29	29	29
Total Finance Expense	**946**	**947**	**951**	**937**	**922**	**918**	**910**	**897**	**884**	**875**

MANITOBA HYDRO
Electric Operations
Summary of Total Finance Expense
Financial Forecast Scenario
($ millions CAD)

	Outlook 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
Interest on Short & Long Term Debt										
Gross Interest	865	846	846	852	865	881	901	906	912	878
Provincial Guarantee Fee	232	229	228	228	229	229	230	232	232	231
Amortization of (Premiums), Discounts, and Transaction Costs	(6)	(3)	(1)	1	2	-	(2)	(1)	1	2
Intercompany Interest Receivable	(20)	(23)	(24)	(26)	(28)	(29)	(31)	(32)	(33)	(33)
Total Interest on Short & Long Term Debt	**1,071**	**1,049**	**1,049**	**1,055**	**1,068**	**1,081**	**1,098**	**1,105**	**1,112**	**1,078**
Interest Allocated to Construction	**(19)**	**(20)**	**(21)**	**(17)**	**(15)**	**(13)**	**(17)**	**(17)**	**(18)**	**(18)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	4	(1)	(17)	(1)	6	5	2	-	-	-
Revaluation of Dual Currency Bonds	2	2	2	1	-	-	-	-	-	-
Corporate Allocation	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(15)	(12)	(12)
Other Amortization	37	37	36	36	35	34	33	33	32	31
Total Finance Expense	**1,077**	**1,049**	**1,031**	**1,056**	**1,076**	**1,089**	**1,098**	**1,106**	**1,114**	**1,079**

	Forecast 2033	Forecast 2034	Forecast 2035	Forecast 2036	Forecast 2037	Forecast 2038	Forecast 2039	Forecast 2040	Forecast 2041	Forecast 2042
Interest on Short & Long Term Debt										
Gross Interest	880	878	882	871	867	854	831	824	812	801
Provincial Guarantee Fee	230	228	235	229	228	227	225	223	221	218
Amortization of (Premiums), Discounts, and Transaction Costs	2	3	3	3	3	3	3	3	2	2
Intercompany Interest Receivable	(34)	(34)	(35)	(35)	(36)	(36)	(36)	(37)	(37)	(37)
Total Interest on Short & Long Term Debt	**1,078**	**1,075**	**1,085**	**1,068**	**1,062**	**1,048**	**1,023**	**1,013**	**998**	**984**
Interest Allocated to Construction	**(18)**	**(19)**	**(19)**	**(21)**	**(30)**	**(29)**	**(24)**	**(32)**	**(31)**	**(25)**
Interest Earned on Sinking Fund	-	-	-	-	-	-	-	-	-	-
Realized Foreign Exchange (Gains) or Losses on Debt in Cash Flow Hedges	-	-	-	-	-	-	-	-	-	-
Revaluation of Dual Currency Bonds	-	-	-	-	-	-	-	-	-	-
Corporate Allocation	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Other Amortization	31	30	30	30	29	29	29	29	29	29
Total Finance Expense	**1,079**	**1,074**	**1,084**	**1,065**	**1,049**	**1,036**	**1,016**	**998**	**984**	**976**

REFERENCE:

Appendix 4.5 pg. 9 Chart 2 Debt Management

PREAMBLE TO IR (IF ANY):

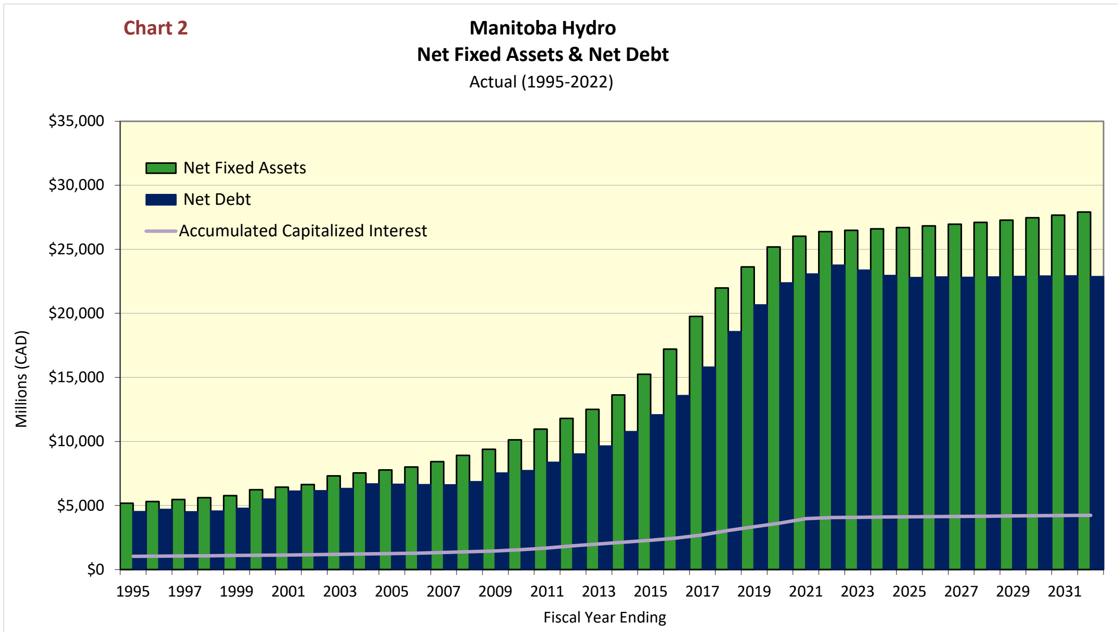
QUESTION:

a) Please provide an update to Chart 2, including the accumulated capitalized interest and a table of data points, similar to PUB/MH I-24 from the 2017/18 & 2018/19 GRA.

RESPONSE:

Chart 2 from the Debt Management Strategy (Appendix 4.5) shows consolidated net assets which are the total property, plant and equipment less accumulated depreciation plus construction work in progress. Net debt is gross debt less sinking fund and temporary investments. Actual values are provided for fiscal years ending 1995 to 2022. Forecast data commencing in fiscal 2023 is based on the Amended Financial Forecast Scenario. The Chart has been reproduced below, including the corresponding data points.

In addition, capitalized interest in fiscal 2009 was amended to $76M (previously $56M) to add $20M of capitalized interest attributable to WPLP.



Fiscal Year Ending	Net Assets	Net Debt	Accumulated Capitalized Interest
1995	5,170	4,508	1,023
1996	5,310	4,685	1,042
1997	5,464	4,493	1,058
1998	5,608	4,559	1,077
1999	5,774	4,772	1,097
2000	6,235	5,488	1,112
2001	6,428	6,114	1,128
2002	6,626	6,146	1,154
2003	7,305	6,320	1,182
2004	7,536	6,675	1,213
2005	7,776	6,642	1,246
2006	8,010	6,614	1,281
2007	8,415	6,597	1,328
2008	8,912	6,852	1,388
2009	9,382	7,521	1,464
2010	10,128	7,716	1,563
2011	10,954	8,365	1,701
2012	11,797	9,011	1,871
2013	12,508	9,634	2,012

Fiscal Year Ending	Net Assets	Net Debt	Accumulated Capitalized Interest
2014	13,627	10,757	2,154
2015	15,250	12,078	2,299
2016	17,208	13,573	2,476
2017	19,757	15,797	2,724
2018	21,979	18,560	3,067
2019	23,627	20,655	3,350
2020	25,190	22,364	3,649
2021	26,023	23,062	3,995
2022	26,376	23,755	4,078
2023	26,486	23,368	4,097
2024	26,594	22,950	4,117
2025	26,698	22,789	4,138
2026	26,836	22,839	4,155
2027	26,961	22,801	4,171
2028	27,110	22,835	4,184
2029	27,274	22,872	4,201
2030	27,462	22,911	4,219
2031	27,672	22,919	4,237
2032	27,904	22,858	4,255

REFERENCE:

Appendix 4.5 pg. 9 Chart 2 Debt Management

PREAMBLE TO IR (IF ANY):

QUESTION:

b) Please indicate how much of the capitalized interest relates to Wuskwatim G.S, Keeyask G.S., Bipole III and Business Operations Capital (alternatively, how much relates to major generation and transmission projects and Business Operations Capital).

RESPONSE:

Please see the table of the capitalized interest below.

Fiscal Year Ending	Wuskwatim G.S.	Keeyask G.S.	Bipole III	Business Operations Capital & Other Major Capital	Total Business Operations Capital & Major Capital	Other Capitalized Expenditure Items & Centra Gas	Total Capitalized Interest	Accumulated Capitalized Interest
($ millions)								
2003	3	5	0	18	**27**	1	**28**	**1,182**
2004	5	7	0	17	**30**	2	**32**	**1,213**
2005	8	10	0	13	**31**	2	**33**	**1,246**
2006	8	10	0	14	**33**	2	**34**	**1,281**
2007	11	13	0	20	**44**	3	**47**	**1,328**
2008	15	15	1	27	**58**	2	**60**	**1,388**
2009	26	19	1	27	**72**	4	**76**	**1,464**
2010	40	21	2	32	**95**	4	**99**	**1,563**
2011	58	26	4	45	**133**	5	**138**	**1,701**
2012	74	30	7	54	**165**	5	**170**	**1,871**
2013	30	36	12	58	**136**	5	**141**	**2,012**
2014	0	45	19	73	**137**	5	**142**	**2,154**
2015	-	49	28	66	**143**	2	**145**	**2,299**
2016	-	72	52	50	**173**	4	**177**	**2,476**
2017	-	107	97	39	**244**	4	**248**	**2,724**
2018	-	151	162	25	**338**	5	**343**	**3,067**
2019	-	200	49	20	**269**	14	**283**	**3,350**
2020	-	251	0	25	**276**	23	**299**	**3,649**
2021	-	319	0	21	**340**	6	**346**	**3,995**
2022	-	66	0	15	**81**	2	**83**	**4,078**

MFR 74 (Amended)

Prior references
PUB MFR 59, 2017/18 & 2018/19 GRA

Finance Expense-Debt Levels

A schedule detailing the current refinancing plans, the weighted average term of outstanding debt, the principal amount and proportions of debt maturing in 10 years, 20 years and greater than 20 years.

Figure 1 below provides the principal amount of long-term debt outstanding at fiscal year-end, as well as the relative proportion of long-term debt maturing within specific time frames and the weighted average term to maturity of the total long term debt portfolio. Actuals were provided at March 31 for the fiscal years ended 2004 through 2022, with an outlook for fiscal year 2023 and Amended Financial Forecast Scenario year-end figures for March 31, 2024 & 2025.

Note that Figure~~Table~~ 1 was prepared using debt maturities conforming to the Corporation's financial statement presentation, which, in accordance with accounting standards, specify the most outward obligation dates on any debt series (the latter of physical debt or forward interest rate swap maturity dates). In addition, the forecasted long term debt percentages and weighted average terms to maturity will be affected by the simplifying forecast modeling assumption of a 20-year term to maturity for all new long term debt issuance. For example, this forecast assumption leads to a disproportionate forecasted percentage of the long-term debt portfolio being shown as maturing between 10 – 20 years from the depicted fiscal year end. Actual terms to maturity for new long term debt issues will vary from forecast, and the distribution of the future transacted long term debt issues will continue to have a combination of various maturities.

Figure 1: Maturity Dates, Total Long-Term Debt and Weighted Average Term to Maturity

MANITOBA HYDRO
PUB MFR 74 - Finance Expense - Debt Levels
Actuals are shown for March 31, 2004 - 2022; with outlook 2023 and forecast information shown for March 31, 2024 & 2025.
($ in CAD millions)

	Debt Maturing Less than 10 Years		Debt Maturing Between 10 - 20 Years		Debt Maturing Greater than 20 Years		Total Long Term Debt	Weighted Average Term to Maturity
	$	% of Total	$	% of Total	$	% of Total	$	(Years)
March 31, 2004	2,586	35.1 %	3,521	47.7 %	1,268	17.2 %	7,375	13.8
March 31, 2005	2,377	33.1 %	3,346	46.5 %	1,468	20.4 %	7,191	13.8
March 31, 2006	2,397	33.5 %	3,317	46.3 %	1,443	20.2 %	7,158	13.7
March 31, 2007	2,623	36.3 %	3,094	42.9 %	1,501	20.8 %	7,218	12.9
March 31, 2008	2,996	39.5 %	2,513	33.1 %	2,081	27.4 %	7,590	13.5
March 31, 2009	3,763	45.8 %	2,026	24.7 %	2,421	29.5 %	8,209	13.6
March 31, 2010	3,963	46.0 %	1,805	21.0 %	2,846	33.0 %	8,614	14.8
March 31, 2011	3,967	45.6 %	2,241	25.7 %	2,496	28.7 %	8,704	15.3
March 31, 2012	4,841	51.4 %	1,619	17.2 %	2,962	31.4 %	9,422	14.9
March 31, 2013	5,179	51.7 %	1,499	15.0 %	3,332	33.3 %	10,010	14.8
March 31, 2014	5,160	46.9 %	1,500	13.6 %	4,349	39.5 %	11,009	16.2
March 31, 2015	5,264	41.4 %	1,370	10.8 %	6,084	47.8 %	12,717	17.8
March 31, 2016	6,096	41.7 %	1,441	9.9 %	7,071	48.4 %	14,607	18.1
March 31, 2017	7,270	44.1 %	1,641	9.9 %	7,582	46.0 %	16,492	17.5
March 31, 2018	8,716	45.3 %	2,091	10.9 %	8,432	43.8 %	19,239	17.2
March 31, 2019	9,397	43.5 %	2,630	12.2 %	9,594	44.4 %	21,622	17.6
March 31, 2020	10,154	43.8 %	2,808	12.1 %	10,236	44.1 %	23,198	17.5
March 31, 2021	10,209	42.4 %	2,538	10.5 %	11,311	47.0 %	24,057	19.7
March 31, 2022	10,707	43.3 %	2,725	11.0 %	11,273	45.6 %	24,705	19.0
March 31, 2023	9,733	39.6 %	3,512	14.3 %	11,323	46.1 %	24,569	19.1
March 31, 2024 *	8,266	35.2 %	3,962	16.9 %	11,273	48.0 %	23,502	19.3
March 31, 2025 *	7,438	31.8 %	4,683	20.0 %	11,273	48.2 %	23,394	19.1

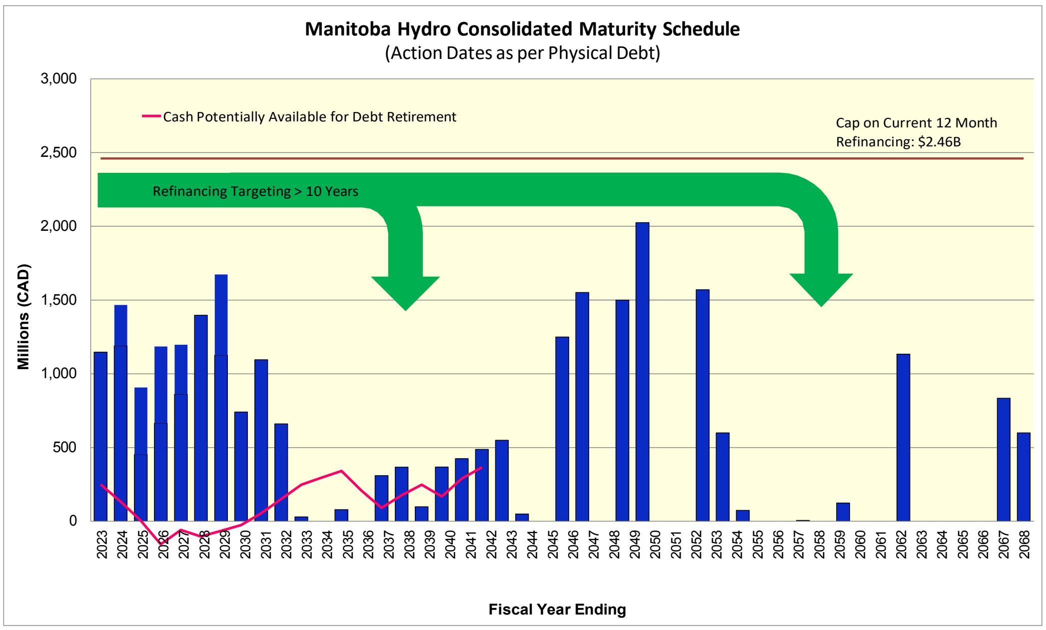
* The forecasted debt percentages and weighted average terms to maturity will be affected by the simplifying modeling assumption of a 20 year term to maturity for all new debt issuance. Actual terms to maturity will vary from forecast.

9

Manitoba Hydro Debt Management Strategy November 2022

Key Messages

- Manitoba Hydro is currently nearing the completion of a period of intensive capital investment that has seen the corporation's gross debt grow to $24.6 billion as at September 30, 2022 (debt maturities seen below). During this expansion, the majority of the capital expenditures were funded with new debt financing.



- Interest rate risk is a top risk for the corporation. With, on average, $1.1 billion in debt maturities annually potentially requiring refinancing over the next decade, there will be upward pressure on finance expense as maturing debt is currently projected to be refinanced at higher interest rates.
- Cash flow generated to fund core operations is key to Manitoba Hydro's self-sufficiency. Funding ongoing costs, maintenance capital expenditures and sinking fund contributions through internally generated cash will assist in demonstrating self-sufficiency to stakeholders and credit rating agencies.
- With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to fund yearly debt retirement.
- A focus on debt reduction and positive earnings will be viewed positively by credit rating agencies.
- By paying down debt today, Manitoba Hydro will reduce annual interest costs.
  - Approximately 40 cents of every dollar customers' pay to Manitoba Hydro goes to pay just the interest costs on Manitoba Hydro's debt.
  - Paying down debt will help reduce interest costs in the near term for existing customers, as well as over the long-term.
- Manitoba Hydro is focused on ensuring the long-term financial health of the utility.

Table of Contents

1.0 Debt Management Objectives

Manitoba Hydro's fundamental debt management objective is to provide **low cost, stable funding** to meet the financial obligations and liquidity needs of the Corporation, while *maintaining risk at prudent levels* and *reserving sufficient flexibility* to adapt to changing circumstances. The Corporation's debt management has adapted in response to evolving financing requirements, financial market conditions and risk parameters. This document outlines the debt management strategies and tactics that will address Manitoba Hydro's projected financing requirements.

2.0 Debt Management Context

Manitoba Hydro is a capital intensive organization that makes significant investments in new and sustaining infrastructure. These investing activities are funded through cash sourced from internally generated cash flows (cash provided by operating activities) and/or external financing activities. As a Crown Corporation wholly-owned by the Province of Manitoba, Manitoba Hydro does not have access to private share capital as a source of funds. Therefore, Manitoba Hydro uses debt as a primary source of external financing.

Manitoba Hydro is currently nearing the completion of a period of intensive capital investment that has seen the corporation's gross debt grow to $24.6 billion as at September 30, 2022. During this expansion, the majority of the capital expenditures were funded with new debt financing. This increasing financial leverage has placed significant pressure upon Manitoba Hydro's financial metrics and has elevated the contingent credit liability to the Province of Manitoba. Moving forward, Manitoba Hydro will adjust debt management strategies to shift course as the utility rebuilds its self-sufficiency and financial health recovers with the in-service of the Keeyask Generating Station.

This Debt Management Strategy (DMS) is based on a Financial Forecast Scenario which assumes annual 3.50% rate increases in each fiscal year until 2033 and 0.55% thereafter. Please note, this Financial Forecast Scenario will differ slightly from the Financial Forecast Scenario filed as part of Manitoba Hydro's 2022 Electric General Rate Application and refers to consolidated information as overall financing requirements of Manitoba Hydro and its subsidiaries are managed on a consolidated basis.

This Financial Forecast Scenario will determine a level of future debt financing required as well as project the cash potentially available for debt retirement which will vary with changing forecast assumptions. Manitoba Hydro's DMS is guided by Strategy 2040 to take all responsible measures to ensure safe, clean, reliable energy for our customers at the lowest possible cost. The Financial Forecast Scenario assumes reasonable rate increases to return the interest coverage ratio to a target level of 1.8x in fiscal 2030 and the debt to capitalization ratio to a target level of 80% by fiscal 2033.

Since the onset of the COVID-19 pandemic, financial markets have experienced, periods of extensive volatility and uneven market tone, thereby escalating market liquidity risk. Jointly with the Province of Manitoba, Manitoba Hydro shifted to preserve liquidity by maintaining cash balances equivalent to approximately six months of cash requirements. Concurrently, the utility was exposed to higher operational liquidity risk from the drought in 2021/22. In 2022/23, Manitoba Hydro's circumstances have seen a reversal of drought conditions. Favourable water conditions along with higher spot market prices have resulted in increased opportunity revenues. While Manitoba Hydro will benefit financially, the volatility of the cash flows remains high. While borrowing requirements have decreased from Budget 2022, the liquidity risks remain elevated and warrant the maintenance of the current level of prudential liquidity. Manitoba Hydro will consider reducing cash balances when the elevated liquidity risks abate.

Given the significant level of debt financing which Manitoba Hydro has undertaken during the last few years, the Corporation's sensitivity to interest rate changes has been elevated. The level of interest rate risk exposure to new debt financing will abate going forward as the new assets have come into service. However, over the next ten years, a large exposure to interest rate risk will lie in the refinancing of maturing long term debt. From 2022/23 to 2031/32, Manitoba Hydro will refinance or retire $10.8 billion in debt maturities or approximately $1.1 billion per year on average (approximately 4.5% of the debt portfolio). At March 31, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month period was 6% (or $1.5 billion). In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio to below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

3.0 Debt Management Strategies

Manitoba Hydro's fundamental debt management objective is to provide **low cost, stable funding** to meet the financial obligations and liquidity needs of the Corporation, while *maintaining risk at prudent levels* and *reserving sufficient flexibility* to adapt to changing circumstances. Debt management strategies and activities will adapt to evolving financing requirements, financial market conditions and risk parameters.

During the ***past decade***, the volume, frequency and complexity of the Corporation's debt management activities have increased. There was significant growth in the debt portfolio to fund the heavy capital investment program. During this period, the interest rate risk was reduced by decreasing the percentage of floating rate debt within the existing debt portfolio. In order to reduce refinancing risk, Manitoba Hydro adopted a strategy that favored longer dated debt maturities that enhanced debt stability by extending the debt portfolio's weighted average term to maturity to the current 19.5 years. These long-term bonds are in line with the service life of the utility's property, plant and equipment. Manitoba Hydro also taken advantage of the low interest rate environment to decrease the debt portfolio's weighted average interest rate to the historically low 3.4% excluding Provincial Guarantee Fee (PGF). In order to maximize the availability of the credit facility for liquidity protection, the use of the short term borrowing program was reduced. Manitoba Hydro shifted to preserve liquidity by maintaining positive cash balances funded with long term financing to enhance financing flexibility and lock in low interest rates ahead of cash requirements. In order to minimize the accumulation of gross debt, Manitoba Hydro began reducing the accumulated sinking fund balances with more frequent withdrawals, finally depleting the sinking fund reserve completely by 2016. In order to optimize the Corporation's liquidity practices and to reduce finance expense, Manitoba Hydro sought to minimize its sinking fund balances where feasible until the new capital projects were complete.

Moving forward, Manitoba Hydro will need to strike the right balance to achieve priorities of meeting customer needs and preferences, while improving Manitoba Hydro's financial health over time and ensuring system reliability to support Strategy 2040. Managing financial risks to ensure the utility moves forward in strengthening its financial health in the midst of many uncertainties (hydrology, macroeconomic environment and financial markets, future rate increases and regulatory developments, government mandates, self-sustaining status, credit ratings, evolving energy landscape…) will require strategies to be prudent, yet agile.

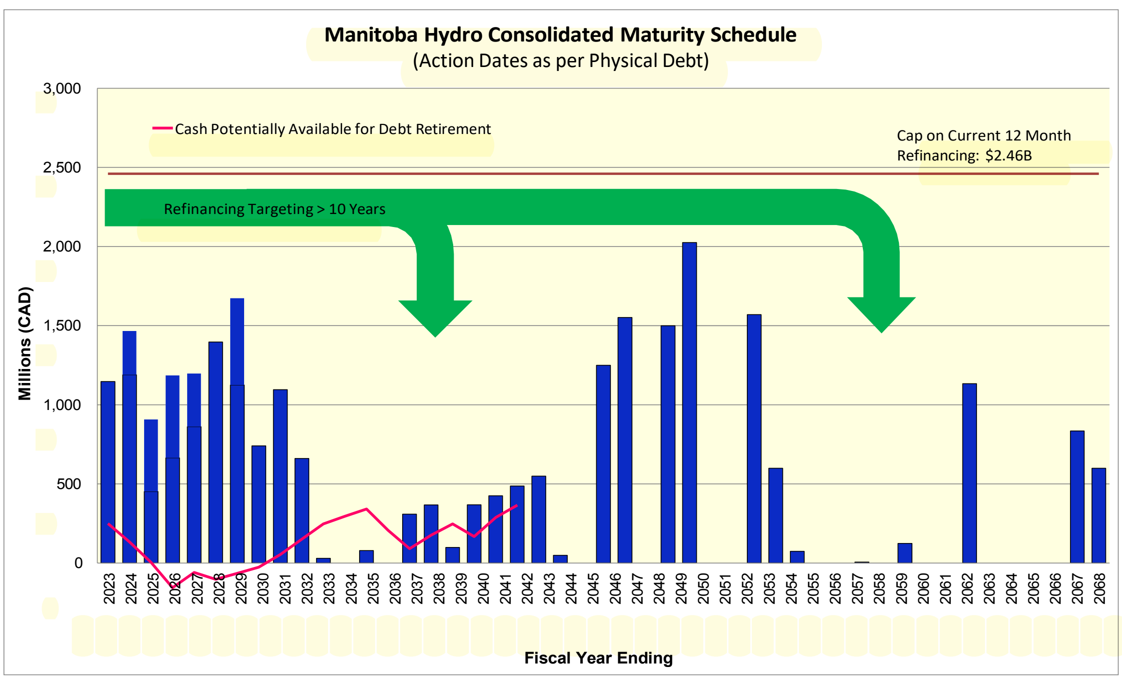
In the ***next decade**,* Manitoba Hydro will refinance or retire $10.8 billion in debt maturities (approximately 45% of the total debt portfolio) in a higher interest rate environment where the outlook is currently subject to extraordinary uncertainty. Manitoba Hydro plans include the following for the near term:

Financial Forecast Scenario	Long Term Debt Maturities	Forecast Refinancing	Cash Drawdown	Potential Debt Retirement
2022/23	$1.1 billion	$0.8 billion	$0.0 billion	$0.3 billion
2023/24	$1.4 billion	$0.8 billion	$0.5 billion	$0.1 billion
2024/25	$0.9 billion	$0.8 billion	$0.1 billion	$0.0 billion

- With historically high debt levels, Manitoba Hydro will maintain the percentage of floating rate debt within the debt portfolio to below 10% to minimize the overall interest rate exposure.
- Will manage the refinancing risk within the existing debt portfolio by continuing to smooth the debt maturity schedule. This includes targeting debt issuance with terms to maturity of 10-14 years into a portion of the schedule which is currently lacking debt maturities.
- Select maturities that minimize the addition to the refinancing schedule in the next decade (10 years +) and target to maintain the longer term weighted average term to maturity of the debt portfolio to minimize refinancing risk and maintain stability in the portfolio.
- Replenish the sinking fund reserve with internally generated funds where available to make annual debt retirements and eliminating the requirement and risk associated with refinancing.
- Will mitigate liquidity risk and ensure financing flexibility by maintaining positive cash balances and/or access to liquidity.
- Will use the larger $1.5 billion short term borrowing program, once guaranteed by the Province of Manitoba, as another tool to adjust the level of floating rate debt in the portfolio.
- Will support the Province of Manitoba's borrowing program by establishing benchmark sized debt issues (in particular 10 and 30 years), and diversifying the investor base to ensure ready access to low cost, long term funding in Canadian and international markets where cost effective.
- Will continue to monitor the volumes of export revenues for additional risk mitigation opportunities.
- Will **continually re-evaluate the debt management strategies** in the context of the above-mentioned uncertainties.

The following figure 1 depicts the debt maturity schedule (blue bars) at September 30, 2022 and the green arrows reflect the expected terming of the anticipated refinancings in the next decade into the debt maturity schedule in line with the above debt management strategies. This chart also shows the cash potentially available for debt retirement (cash from operating activities less cash used for investing activities) for the period to the end of the 2042 fiscal year (hot pink line).

Figure 1



The allocation of potentially available cash toward **debt retirement is expected to regularly commence in 2031** in the Financial Forecast Scenario. Net debt will not see any significant reduction within the first decade, but could potentially **retire approximately $2.5 billion of debt** within the 20 year forecast timeframe. Debt reduction is a key factor towards the planned reduction in finance expense and the recovery of Manitoba Hydro's financial ratios. Under the Financial Forecast Scenario, the **debt target of 80%** is achieved in **2033** and the **EBITDA interest coverage ratio target of 1.8x** is achieved in **2030**.

Cash flow generated to fund core operations is key to Manitoba Hydro's self-sufficiency. The Crown corporation should be able to meet its ongoing costs, including debt servicing costs and maintenance capital expenditures through internally generated cash and replenish the sinking fund reserve to allow for yearly debt retirement. A focus on debt reduction and positive earnings will be viewed positively by credit rating agencies. Debt retirement will reduce annual interest costs for Manitoba Hydro's customers and help ensure the long-term financial health of the utility.

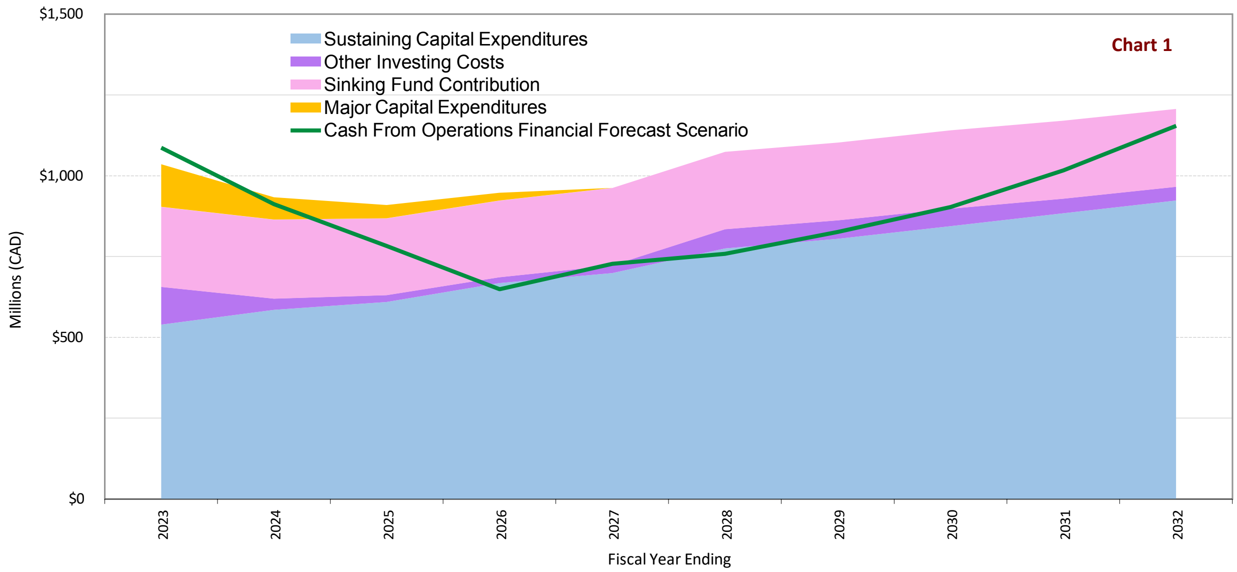
4.0 Manitoba Hydro's Capital Investments, Cash Flow and Debt Levels

Manitoba Hydro's capital program includes expenditures for Major Capital (referred to previously as Major New Generation and Transmission), which provide increased capacity, energy or reliability, as well as expenditures to meet electricity and natural gas service replacements and expansions throughout the Province. Major Capital expenditures for the five-year period to March 31, 2027 are projected to be approximately $267 million, which is all attributable to the Keeyask Project.

Sustaining capital expenditures, excluding Major Projects, total approximately $3.5 billion over the five-year forecast period to 2026/27. Manitoba Hydro is investing in the replacement and refurbishment of existing assets to address the degradation and obsolescence of assets installed several decades ago, distribution assets to address increasing load requirements, as well as transmission capacity enhancements to address higher than average load growth and system expansion in certain rural and urban regions of the Province. Manitoba Hydro targets to have internally generated funds to fund the majority of these sustaining capital expenditures.

The Efficiency Manitoba Act moved the responsibility for the planning, design and implementation of Demand Side Management (DSM) programming to a new Crown corporation called Efficiency Manitoba. The electric and natural gas Demand Side Management activities of Efficiency Manitoba are to be funded by Manitoba Hydro. DSM activities for the five-year period to March 31, 2027 are projected to require approximately $400 million of funding. These costs are included in the 'other investing' category on the cash flow statement.

The following chart 1 depicts Manitoba Hydro's planned capital expenditures, other investing costs and the sinking fund contributions from 2023 to 2032. With the exception of new major capital expenditures, **Manitoba Hydro targets to fund these ongoing costs of the operation with internally generated funds**. The Financial Forecast Scenario allows for the utility to nearly fully fund its costs by the end of the 10 year forecast period.



Internally generated cash flows provide the base source of funding for the Corporation's capital expenditures. The total net cash provided by operating activities for the 2022/23 year is forecast to be approximately $1.1 billion which includes higher than normal cash inflows from favourable opportunity revenues and water levels.

Utilizing available internally generated cash flow from operations to fund investing activities reduces the amount that would otherwise need to be borrowed each year by Manitoba Hydro.

External Financing The total forecasted annual debt refinancing requirements for Manitoba Hydro in the next three year period will be as follows:

Financial Forecast Scenario	Long Term Debt Maturities	Forecast Refinancing	Cash Drawdown	Potential Debt Retirement
2022/23	$1.1 billion	$0.8 billion	$0.0 billion	$0.3 billion
2023/24	$1.4 billion	$0.8 billion	$0.5 billion	$0.1 billion
2024/25	$0.9 billion	$0.8 billion	$0.1 billion	$0.0 billion

There are no new borrowing requirements in this Financial Forecast Scenario for this period.

Short Term Borrowing

The primary objective of the short term borrowing program is to safeguard the Corporation from liquidity risk by providing a credit facility to support the Corporation's temporary cash requirements. The current $500 million guaranteed short term borrowing program provides only a relatively small level of liquidity protection for the Corporation. In order to maximize the availability of the credit facility for liquidity protection, the use of the short term borrowing program has been reduced in recent years. When the approved and guaranteed limit is raised to a higher level by the Province (currently $1.5 billion is authorized in *The Manitoba Hydro Act*), then more risk mitigation and financing flexibility will be available. As of September 30, 2022, Manitoba Hydro had $50 million of short term debt outstanding.

Provincial Guarantee Fee

The Provincial Guarantee Fee (PGF) is an annual fee payable to the Province of Manitoba in exchange for the debt guarantee and is calculated using a rate of 1% multiplied by the applicable outstanding debt at March 31st of the previous fiscal year. The Provincial Guarantee on Manitoba Hydro's debt is an essential and fundamental requirement to successfully finance Manitoba Hydro's capital programs, allowing Manitoba

Hydro to borrow at rates lower than what Manitoba Hydro could access in the market absent the Provincial guarantee.

The percentage of the fee as well as Manitoba Hydro's debt balance have both increased since the PGF's inception in 1962. The percentage of the PGF increased from 0.125% prior to 1991 to 1% beginning in 2007.

In the last seven years, the PGF payment has more than doubled reflecting elevated debt levels required to fund recent major capital development. For the fiscal year ended March 31, 2022, Manitoba Hydro made a PGF payment to the government of $229 million, which represents 7.5% of the Corporation's total revenue.

Sinking Fund Reserve

Manitoba Hydro is required to set aside a reserve out of the funds of the Corporation each year for the repayment of moneys borrowed by the utility. The Manitoba Hydro Act requires the Corporation to make minimum annual sinking fund contributions equal to 1% of the debt outstanding at March 31 of the preceding fiscal year plus 4% of the sinking fund balance at March 31 of the preceding fiscal year. The Sinking Fund Trust is administered by the Minister of Finance and investments made with trust funds are authorized by *The Financial Administration Act.*

The legislated minimum sinking fund contribution calculation formula allows the utility to set aside internally generated funds to retire debt borrowed for *"the acquisition or construction of property and works of the Corporation"* over a period of approximately 42 years.

Manitoba Hydro has maintained sinking fund reserves throughout history. However, due to the capital expansion of the last decade, Manitoba Hydro was reinvesting all its earnings in assets to expand its core business as well as borrowing unprecedented volumes of debt. In order to minimize the accumulation of gross debt, Manitoba Hydro began reducing the accumulated sinking fund balances with more frequent withdrawals, depleting the sinking fund reserve completely by 2016.

As Manitoba Hydro's cash flow projections at the time indicated that the Corporation's investing activities would exceed the cash flow from operations until at least 2022, the Corporation would be sourcing the incremental cash for sinking fund contributions through the issuance of additional debt – thereby incurring additional costs. At the time, in order to optimize the Corporation's liquidity practices, minimize gross debt balances and to reduce finance expense, Manitoba Hydro sought to minimize its sinking fund balances where feasible.

With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to fund yearly debt retirement.

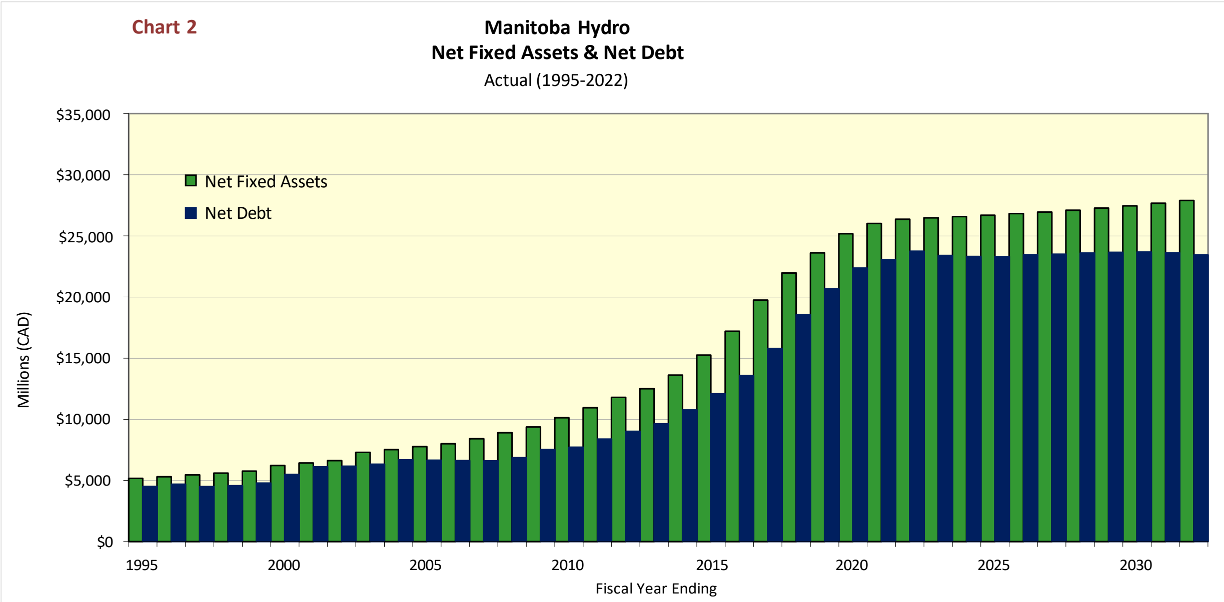
As is evidenced in Chart 1, the Financial Forecast Scenario allows for the sinking fund contribution to be sourced nearly completely from internally generated funds by 2032. Until that time, in this scenario, the Corporation will need to borrow to fund all or a part of the sinking fund contribution.

Replenishing the sinking fund reserve will allow Manitoba Hydro to shift course and rebuild its self-sufficiency. The sinking fund reserve protects Manitoba Hydro against both liquidity risk and interest rate risk as it provides the utility with cash to repay debt maturity obligations each year.

This reserve protects the self-sustainability of the utility. The ability to fund contributions to the reserve from internally generated funds conveys to the financial markets and credit rating agencies that the utility is reasonably servicing its debt and setting aside funds for the debt to eventually be repaid. With weak financial metrics and debt levels as elevated as those of Manitoba Hydro's, the reserve will mitigate the risk that a portion of the utility's debt be deemed to be not self-supported.

Growth in Debt

The level of Manitoba Hydro's debt is considered in the context of the associated capital investments that are in-service or under construction. The following chart 2 illustrates the growth in net fixed assets (green) and net debt (blue) since 1995. While net debt grew to approximately $23.8 billion as at March 31, 2022, the corresponding net investment in generation, transmission, distribution and other assets has grown to a net book value of approximately $26.4 billion at March 31, 2022. Moving forward, the level of Manitoba Hydro's net fixed assets and net debt will stabilize until 2032 when the projected level of net debt begins to decline under the Financial Forecast Scenario.



Self-Sustaining Status

Manitoba Hydro arranges long term financing in the form of advances from the Province of Manitoba. Manitoba Hydro's long and short term credit ratings are a flow-through of the Province of Manitoba's credit ratings. As Manitoba Hydro's net debt represents approximately 43% of the total Province of Manitoba debt at March 31, 2022, the credit rating agencies (DBRS, Moody's, and S&P) will continue to monitor Manitoba Hydro's cash flow, capital expenditures, and approved rate increases. The credit rating agencies will also monitor Manitoba Hydro's financial performance as measured by its level of retained earnings and financial ratios such as interest coverage and debt in capital structure. Manitoba Hydro currently has an Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) interest coverage ratio target of 1.8X and a debt in capital structure target of 80% by 2034/35 and 70% by 2039/40. As at March 31, 2022, the EBITDA interest coverage ratio was 1.35 and the debt ratio was 86%.

In its *2022 Canadian Provincial and Territorial Government Outlook*, (page 58), DBRS lists the following self-supporting attributes of a Crown corporation:

1. The Crown corporation is accounted for as a GBE without any reservations from the jurisdiction's auditor.
2. The Crown corporation has a high degree of operational independence.
3. The Crown corporation is generally profitable and does not rely on material subsidies or supports from the provincial government.
4. The Crown corporation is *generally able to meet* its ongoing costs and maintenance capital expenditures through internally generated cash.
5. Debt servicing costs will be met through the regular course of business or through a well-defined recovery mechanism (e.g., rates).
6. Pricing or rates are set in a competitive market place or by an independent regulator.
7. The province or territory has some ability to monetize the Crown corporation or its assets in a stress scenario.

In order for the Corporation to remain self-sustaining, at a minimum, Manitoba Hydro's financial path forward should generally have positive net income and should be able to be so without support from the provincial government, should generally be able to meet its ongoing costs and business operations capital expenditure needs through internally generated funds and **must** meet all debt servicing costs through revenues.

The Financial Forecast Scenario in Figure 2 shows net income decreasing significantly in the next three years with a return to average water levels and a reduction in forecast firm export revenues before starting to increase with the cumulative impact of proposed rate increases.

Figure 2

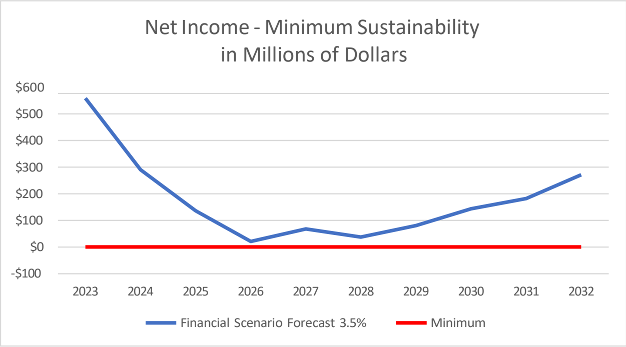
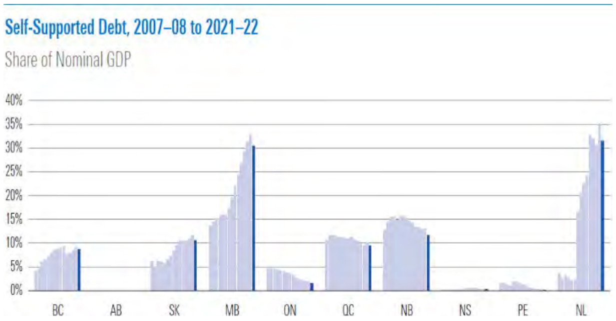


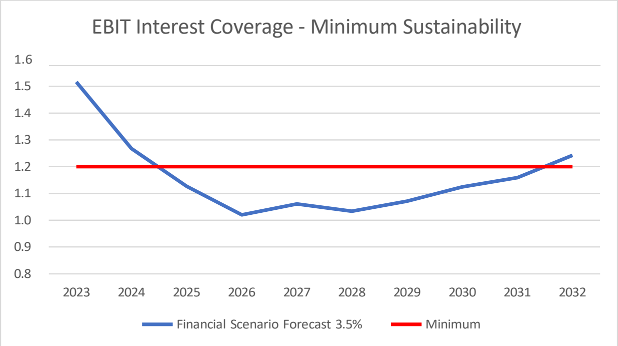
Figure 4



With respect to the Corporation being generally able to meet its ongoing costs and maintenance capital expenditure needs through internally generated cash, Chart 1 on page 7 shows that the Financial Forecast Scenario allows for the utility to nearly fully fund its costs by the end of the 10 year forecast period.

The EBIT interest coverage ratio provides an indication as to the utility's ability to meet its interest obligations on debt. Given that interest payments must be met through internally generated funds, a ratio of greater than one is needed to ensure that obligations can be paid. A minimum of 1.2x would generally meet this requirement. As seen in figure 3, the Financial Forecast Scenario falls short of the target in most years, putting Manitoba Hydro at risk of potentially having to borrow to fund its interest obligations in some years.

Figure 3



In its 2022 Canadian Provincial and Territorial Government Outlook, DBRS shows that Manitoba, along with Newfoundland have the highest self-supported debt as a percentage of GDP of any of the Provinces, exceeding 30% in 2021/22 as seen in Figure 4.

Credit rating agencies look at the historical performance and expected future trends of financial metrics as well as business risks, as noted by DBRS in its December 9, 2020 report on Manitoba Hydro:

> *"DBRS Morningstar could consider reclassifying a portion of the Utility's debt to be tax-supported should the financial health of the Utility deteriorate to the point where its expenses cannot be recovered through rates or export revenues." "If this were to occur, it could potentially put downward pressure on the Province's credit rating."*

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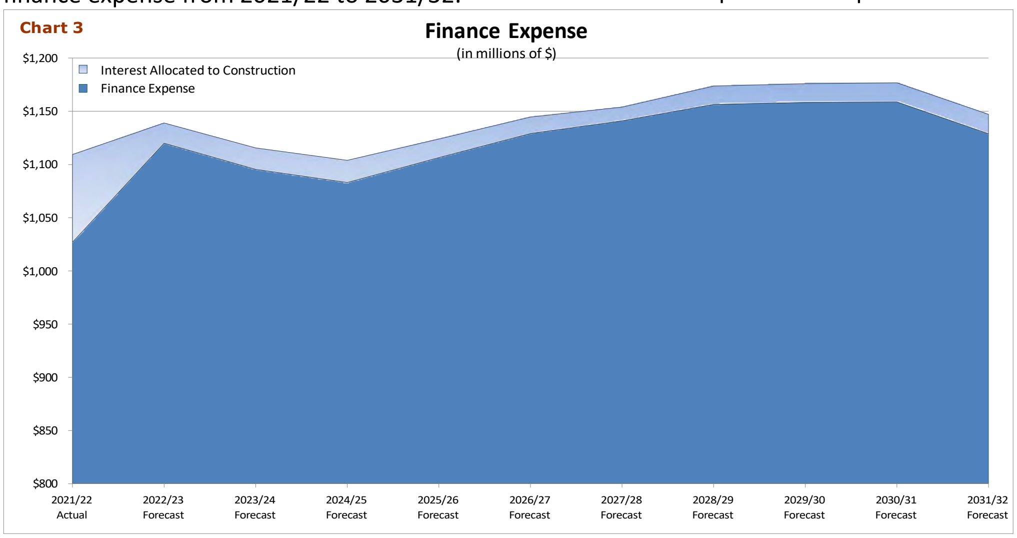
FINANCE EXPENSE

The growth in the debt portfolio has had a significant impact upon finance expense. By paying down debt today, Manitoba Hydro will reduce annual interest costs. Approximately 40 cents of every dollar that customers pay to Manitoba Hydro goes to pay just the interest costs on Manitoba Hydro's debt. Retiring debt will help reduce interest costs in the near term for existing customers, as well as over the long-term.

The following chart depicts the actual and forecasted finance expense from 2021/22 to 2031/32.



Gross interest in 2021/22 rose to over $1.1 billion as the end of the capital expansion approached. The interest allocated to construction (lightly shaded blue area) is the interest capitalized during the construction of a project, which is a reduction to finance expense and a charge to the capital project. The interest associated with a capital project is not included on the income statement until the project is placed into service and reduces gross finance expense to arrive at net finance expense (dark blue area) on the financial statements.

Consequently, although cash will still be required to pay the gross interest on debt, during periods of intensive capital construction, the accounting net finance expense is temporarily shielded from the full weight of the gross interest expense by the interest allocated to construction.

By 2022/23, as the level of new capital investments subside, the net finance expense closely approaches the total interest on debt of over $1.1 billion per year.

Hydrology risk has significantly impacted the utility's financial performance in fiscal 2021/22 and 2022/23 in vastly different directions. While drought conditions in 2021/22 pushed the utility to additionally borrow close to $400 million, favourable water in 2022/23 has Manitoba Hydro projecting higher than normal cash inflows from favourable opportunity revenues of nearly $400 million. The favourable impact of export revenues is timely in a year where Manitoba Hydro's income statement is bearing the full brunt of finance expense and depreciation expense from the in-service of Keeyask generating station. Financial metrics show vast improvement over prior years, however the favourable water conditions and high spot market prices on opportunity sales in 2022/23 cannot be relied upon to keep Manitoba Hydro self-sustaining. As can be seen on chart 3, the EBIT interest coverage ratio dips to 1x and net income to near zero by 2026 indicating that the utility is potentially at risk of not being able to pay its interest payments with internally generated cash.

Manitoba Hydro is projecting to have cash available to retire approximately $250 million of debt in 2022/23 and $130 million in 2023/24. However, with forecasts of average water beginning in 2024/25, financial metrics weaken to the point of concern for the utility's self-sustainability. Note, finance expense begins to increase again as net debt continues to grow and maturing debt is refinanced at higher interest rates. With the Financial Forecast Scenario rate increases of 3.5%, the utility will have cash potentially available for debt retirement beginning in 2031, but net debt will not begin to decrease regularly until then. In the event this scenario does not unfold as projected, the future availability of cash for the utility will be impacted. There will be deviations from these forecast assumptions which will impact Manitoba Hydro's future debt retirement.

5.0 Financial Market Commentary and Treasury Financial Risks

This section of the debt management document will provide a commentary on the financial markets within which Manitoba Hydro will access the required financing, as well as the Corporation's associated risk policies and guidelines; most notably for liquidity risk, interest rate risk, and foreign currency exchange risk.

Manitoba Hydro aims to balance costs and risks associated with the debt structure against evolving economic conditions. Manitoba Hydro has established an Enterprise Risk Management Program to strategically manage enterprise risks through an integrated, forward looking and standardized approach.

Liquidity risk refers to the risk that Manitoba Hydro will not have sufficient cash or cash equivalents to meet its financial obligations as they come due. Manitoba Hydro will meet its financial obligations when due through cash generated from operations, short term borrowings, long term borrowings advanced from the Province of Manitoba, and where applicable, sinking fund withdrawals.

Overall financing requirements of Manitoba Hydro and its subsidiaries are managed on a consolidated basis. The Corporation closely monitors its cash receipts and disbursements on a daily basis as part of regular cash balancing activities. The Corporation also monitors short term debt balances and forecasted cash requirements to ensure that it has sufficient cash to meet near term financial obligations as they come due.

Liquidity risk can generally be subdivided into two categories:

1) **operational liquidity risk** (the availability of internally generated cash flow from operations), and
2) **market liquidity risk** (the availability of externally sourced debt financing from within the financial markets).

Operational liquidity risk arising from the availability of internally generated cash flow from operations is most pronounced for Manitoba Hydro during drought conditions as cash shortfalls occur or are exacerbated as revenues decline. For example, during the 2003/04 drought, cash flows from operating activities were negative. In order to maintain business continuity and to fund ongoing capital investments, additional debt financing was required during that time. In 2021/22, the majority of the impact of the drought was financed with additional debt as Manitoba Hydro recorded a net loss of $248 million.

Cash from operations has been decreasing over the last decade, averaging $118 million per year between 2018 to 2022, down from an average $543 million per year between 2013 to 2017. However, in 2022/23 water conditions have been very favourable and it is anticipated that internally generated cash flows will be above historical levels over the next couple years owing to additional export opportunity revenues.

Market liquidity risk is the risk that the utility will not be able to access sufficient cash via the Province of Manitoba's debt financing from within the financial markets in order to meet its obligations. Market liquidity risk has been elevated for the utility, particularly since the onset of the pandemic in March 2020. Jointly, with the Province of Manitoba, Manitoba Hydro has shifted to preserve liquidity by maintaining cash balances equivalent to approximately six months of cash requirements and will continue to do so until such time as the market volatility abates.

It is anticipated in the Financial Forecast Scenario that Manitoba Hydro will decrease cash on hand as the financing requirements decrease. In fiscal 2022/23 Manitoba Hydro forecasts to maintain an average cash balance of approximately $850 million. Cash balances dipped in the middle of the fiscal year, however they will ramp up to reach approximately $1 billion by yearend in preparation for approximately $1.4 billion of debt maturities in the first quarter of 2023/24.

In response to challenging market conditions, investors active in the provincial space will seek out positions in large, highly liquid bonds that can be readily traded in the financial markets, most notably bonds issued by Ontario and

Quebec, as opposed to less frequent issuers such as Manitoba. Large, carve out deals were quite prominent in 2020 after the onset of the pandemic, however, they dropped considerably in 2021 and 2022. Carve-outs are done by the issuer with an investor to allow the buyer the chance to acquire part of the overall issue in larger amounts than otherwise would be available. This funding process has historically enabled provinces to successfully issue in soft market conditions. Manitoba's maximum carve out size must not exceed 50% of the total issue size.

Continuing on the same trend as in 2021/22, provincial borrowing needs for 2022/23 are expected to be lowered from Budget levels. The updated fiscal outlooks and Public Accounts data that are being released by the provinces indicate that many issuers are reporting stronger fiscal performance, mainly driven by higher tax revenues and natural resource royalties. Year to date, the total provincial issuance is about 35% lower than the same period last year with domestic provincial issuance being approximately 26% lower and offshore provincial issuance about 53% lower.

Manitoba Hydro works with the Province of Manitoba to support the Provincial borrowing program. The bulk of the funding program in 2022/23 has been and will be completed in the Canadian domestic market with continued bias towards benchmark issuances versus Medium Term Notes. In the domestic market, the focus is on ensuring large benchmark issues in both the 10 and 30-year terms. This creates a robust secondary trading market in Manitoba bonds that investors demand, ensuring ongoing interest in future issuances.

Manitoba will supplement its domestic borrowing by opportunistically accessing the offshore markets mainly in the US, European and Australian markets. Utilizing foreign markets allows for investor diversification. Purchasers of Manitoba bonds often have limits on how much they can hold of a specific credit and by increasing the investor universe; it improves access to capital to meet borrowing requirements. It also indicates to primary investors in the domestic market that Manitoba has alternative sources of capital, which helps stabilize the spreads in Canada. Manitoba will only borrow in international markets if the costs are competitive, which can generate savings when compared to issuing in the domestic market.

Within Canada, public debt issuance in the 5, 10 and 30 year terms remained the norm. Ultra-long issuance with terms greater than 30 years was sporadic and there has been a repricing of this part of the yield curve due to the heavier participation in this sector by the Government of Canada. There has been a decrease in provincial floating rate note issuance in the last few years as the shift and transition in reference rates takes hold. The current reference rate for Canadian floating rate long term debt is CDOR (bankers acceptances). This will be replaced by CORRA in a two phase approach. On June 30, 2023, all new contracts will only use CORRA. On June 30, 2024, CDOR will cease to exist, leaving issuers an extra year to transition existing CDOR contracts to CORRA and more CDOR contracts to mature.

Markets have been extremely volatile in 2022 as geopolitical tensions, high inflation and rising interest rates have created uncertainty. Issuing into these volatile markets has been challenging. Looking ahead, public sector issuers are expected to continue to monitor market conditions for issuance opportunities.

On April 15, 2020, *The Manitoba Hydro Act* was amended to increase Manitoba Hydro's legal limit on promissory notes from $0.5 billion to $1.5 billion. The increased limit will become operational pending changes to the Financial Administration Act which are anticipated in 2022. When the approved and guaranteed limit is raised to a higher level by the Province of Manitoba (currently $1.5 billion is authorized in the Manitoba Hydro Act), then more risk mitigation and financing flexibility will be available.

Sinking fund balances are another source of cash. The sinking fund reserve protects Manitoba Hydro against both liquidity risk and interest rate risk as it provides the utility with cash to repay debt maturity obligations. With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to allow for yearly debt retirement.

Interest rate risk is the risk that future cash flows will fluctuate due to changes in market interest rates. There are a number of forms of interest rate risk affecting the existing debt portfolio. Floating or variable rate debt is subject to interest rate reset risk during the life of the debt as the interest rate is adjusted at the periodic reset dates. Refinancing risk pertains to the interest rate exposure that exists upon refinancing a short or long term debt issue at its maturity. On a prospective basis, there is also interest rate risk on borrowings for new cash requirements.

Canadian Rates

On October 26, 2022, the Bank of Canada (BoC) increased the overnight rate by 50 basis points to 3.75%, lower than an expected increase of 75bps. The move represented the 6th consecutive hike this year, marking the fastest monetary policy-tightening campaign on record. BoC officials suggested that “rates will need to rise further”, though the policy rate is close to the end of its tightening phase. The December 2022 rate decision will be largely affected by the upcoming economic growth and inflation data.

Inflation has slowed to 6.9% year over year on the back of lower energy prices, however, core inflation proves to be stubborn with a higher than expected print of 6.0% for September. September GDP stalled to 0.1%, while Bank of Canada expects the next few quarters to have little to no economic growth as policy tightening fully feeds through, projecting overall growth in 2023 to be 0.9%. Another 25 basis point rate increase at the December meeting is largely anticipated. The terminal rate is projected to be 4.25%.

US Rates

On November 2, 2022, the Federal Reserve delivered their 6th consecutive rate hike of the year and 4th consecutive hike of 75 basis points, bringing the upper bound of the Federal Funds Rate to 4.00%. The 75 basis point rate increase was in line with market expectations, with Fed Chair Powell conveying the need for a restrictive policy stance. Powell stated that it's very premature to think about pausing rate hikes at this point and that there is still a ways to go. However, the Fed suggested a possibly slower cadence for rate hikes going forward by explicitly acknowledging the lagged effect of the aggressive tightening to date on the economy and inflation, and the fact that the policy stance is now more materially restrictive. The terminal fed funds rate is now forecast to be 4.75% at the upper bound.

Given the significant level of debt financings which Manitoba Hydro has undertaken during the last few years, the Corporation’s sensitivity to interest rate changes has been elevated. The level of interest rate risk exposure to new debt financing will abate going forward as the new assets have come into service. However, over the coming years, a large exposure to interest rate risk will lie in the refinancing of maturing long term debt. Over the next decade, the corporation will refinance or retire approximately $1 billion per year on average. The interest rate risk on the existing debt portfolio has been reduced by decreasing the percentage of floating rate debt within the debt portfolio.

As the utility’s exposure to interest rate risk has changed, so too has the interest rate environment, with the Bank of Canada’s target rate rising 3.5% from March 2022 to October 2022. With interest rates increasing, Manitoba Hydro’s debt portfolio with a WAIR of 3.4% will be refinanced with debt at higher rates (forecast WAIR of 3.86%) and this will put upward pressure on Manitoba Hydro’s finance expense.

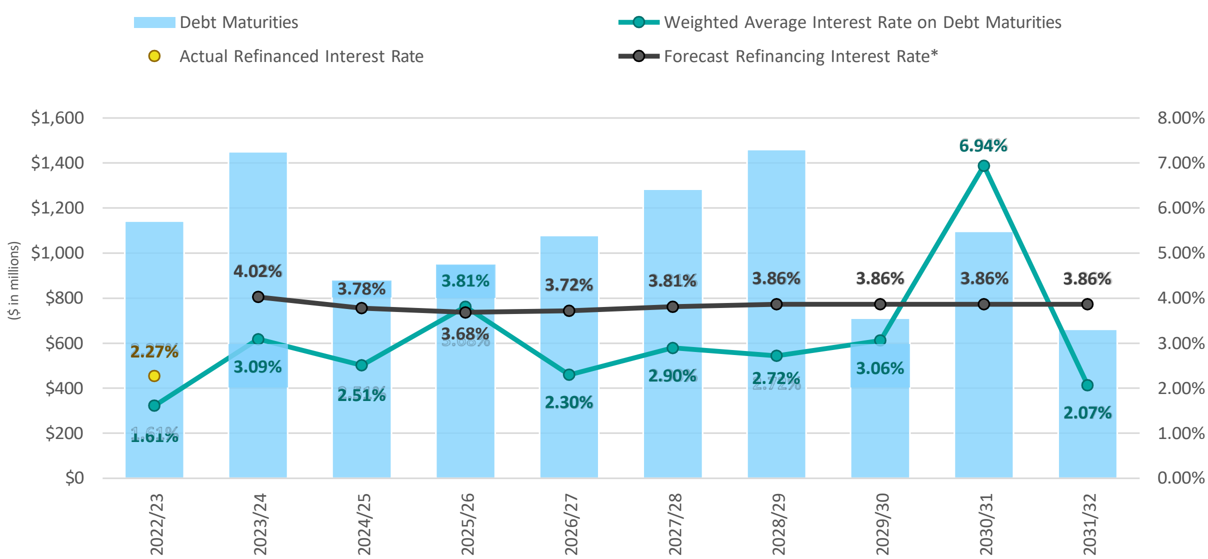
At September 30, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month was 8% or $1.9 billion. In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

The pandemic increased volatility and resulting economic impacts drove interest rates to historically low levels as can be seen in the charts 4, 5 and 6 in Appendix A. To build liquidity when the pandemic struck, Manitoba Hydro secured its first ever Century bonds, issuing $600 million at a yield of 2.97% in April 2020. Manitoba Hydro has secured long term debt transacted at historically low interest rates while adding further stability and minimizing refinancing risk to the debt portfolio.

The interest rate outlook has been subject to extraordinary uncertainty. The current rise in interest rates in 2022 and the continued upside risk to the rate outlook raises uncertainty and volatility in markets. With the tightening of monetary policy this year having occurred at a record pace, it is anticipated that the margins of error around interest rate outlooks will be wider than usual in the coming months.

Higher rates are pushing up debt servicing costs. A 100-basis point sustained interest rate increase would increase refinancing for Manitoba Hydro debt by $28 million in 2024, building to an incremental $107 million by 2028. Sensitivities are greater now that the debt levels are markedly higher than before the capital expansion. Notwithstanding a decrease in new borrowing requirements, the trajectory of debt servicing costs remains a focus for rating agencies monitoring Manitoba Hydro's ability to service its debt obligations. The following figure shows the volumes of maturities and the differential in rates at which refinancings are expected to occur.

Figure 4



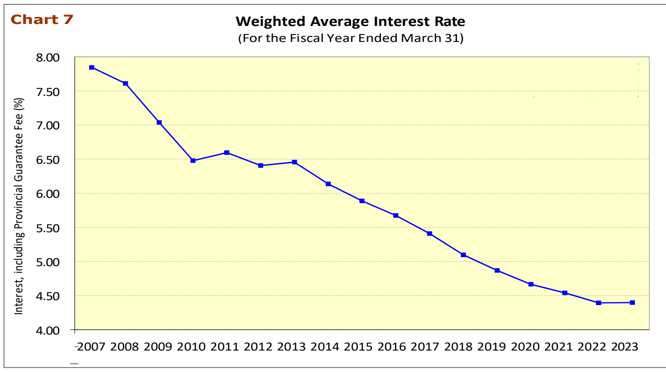
*Forecast rates are a blended rate of 85% fixed rate debt and 15% floating rate debt to match model assumptions on forecasting borrowings
NOTE: Interest rates presented above exclude the Provincial Guarantee Fee

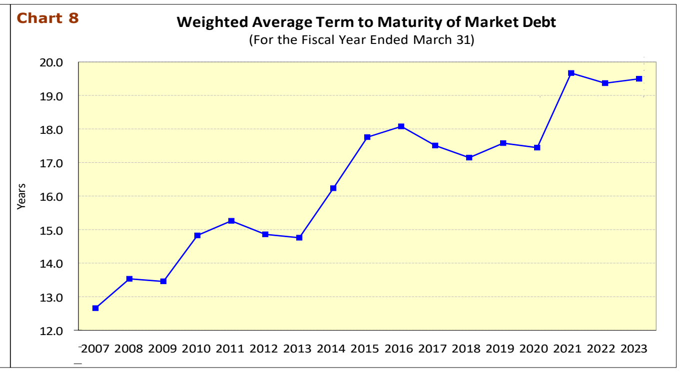
To protect against rising interest rates Manitoba Hydro chose to extend the term to maturity of its debt issuance throughout the capital expansion during a period of historically low interest rates. By actively extending the maturity profile of its debt portfolio when interest rates were low, Manitoba Hydro aimed to avoid the risk of refinancing debt in less favourable market conditions. The pre-funding which was completed in 2021/22 for fiscal 2022/23 bears a WAIR of 2.14%, much less than the forecast rate of 4.1% for 2022/23 locking in savings of approximately $21 million annually for on average 15 years.

The extraordinary low interest rate environment of the last decade has provided the opportunity for Manitoba Hydro to secure stable, low cost funding. As shown on the following charts 7 & 8, since 2006/07, the debt portfolio's weighted average term to maturity of its debt portfolio has increased by approximately 7 years and the weighted average interest rate has decreased by over 3%.

At September 30, 2022, the entire debt portfolio was at nearly the longest weighted average term to maturity (WATM) in Manitoba Hydro's history at **19.5 years** (March 2021 – 19.7 years) as well as being at the lowest weighted average interest rate (WAIR) in history at **3.4%** (not including the PGF).

The current market issuance rate (at date of writing, November 7, 2022), inclusive of commissions, for a Manitoba 10+ Year is 4.60% or 1.2% above of the current WAIR of the debt portfolio (3.4%), and $295 million higher in interest costs annually (for 19.5 years) on the $24.6 billion debt portfolio.





At September 30, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month was 8% or $1.9 billion. With the capital expansion largely complete and against the backdrop of unprecedented growth in debt levels Manitoba Hydro's sensitivity to interest rate changes is high. In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

Manitoba Hydro's new interest rate policy on its existing debt portfolio is to limit the aggregate of:
i) floating rate debt,
ii) short term debt, and
iii) fixed rate long term debt to be refinanced within the subsequent 12 month period;

to a maximum of 25% of the total debt portfolio.

During years in which there are significant refinancings, in order to manage the overall interest rate risk profile, the Corporation's interest rate risk on its existing debt portfolio may be reduced by decreasing the percentage of aggregated short term and floating rate long term debt to ensure compliance with the policy statement.

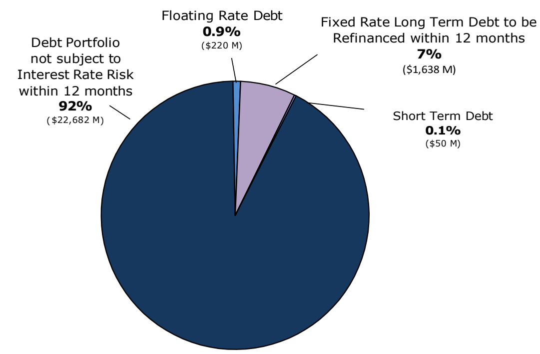
In years in which there are significant new planned borrowings for prospective cash requirements, in order to manage the overall prospective interest rate risk profile, the Corporation's interest rate risk on its existing debt portfolio may be reduced by decreasing the percentage of aggregated short term and floating rate long term debt to ensure that if planned borrowings occur, the Corporation would continue to be compliant with the policy statement and maintain low cost, stable funding for the benefit of the utility's customers.

Manitoba Hydro's debt management guidelines for its existing debt portfolio include:

- maintaining an aggregate of short term debt and floating rate long term debt within 0 – 20% of the total debt portfolio target range, and
- having the net long term debt to be refinanced within a 12 month period being less than 10% of the total debt portfolio.

Chart 9 provides a summary of Manitoba Hydro's interest rate risk profile on the existing debt portfolio as at September 30, 2022 showing that approximately 8% (or $1.9 billion) is currently at risk of movements in interest rates. The *prospective interest rate risk profile*, which also includes new borrowings and refinancing of underlying debt within the next 12 months, will be the same as the current interest rate risk profile as there are no new planned borrowings in 2023/24 as capital expenditures are forecast to be funded with cash from operations.

Chart 9: Summary of Interest Rate Risk Profile (%)
(As at September 30, 2022)



Foreign currency exchange risk represents the potential for financial gain or loss due to foreign exchange movements for any transaction denominated in a currency other than Canadian (CAD) funds.

Manitoba Hydro has exposure to USD foreign exchange rate fluctuations primarily through the sale and purchase of electricity in the US and through borrowing in USD markets to support the Province of Manitoba's USD borrowing program. From an enterprise perspective, risk appetite to foreign exchange risk is low. This risk is mitigated to ensure net income is largely protected from movements in the USDCAD exchange rate.

While Manitoba Hydro has significant net export revenues denominated in United States dollars, the Corporation's exposures to foreign currency rate fluctuations on USD revenues are managed with the combination of natural and accounting hedges. In order to mitigate the foreign currency exchange risk on USD revenues, Manitoba Hydro borrows partly in USD to match outflows from USD debt with inflows from USD revenues. At September 30, 2022 the portion of Manitoba Hydro's debt portfolio that was made up of USD debt principal was 9%.

To the extent that the underlying USD inflows and outflows are in balance, while a strengthening US dollar will increase the translation of USD export revenues into CAD, this change will be offset by increases in the translation of USD dollar expenses (such as USD dollar interest expense) into CAD.

Manitoba Hydro has a long-term natural hedge between USD cash inflows from export revenues and USD cash outflows for long-term interest and principal payments, USD provincial guarantee fee, USD fuel and power purchases and other USD purchases. Long-term accounting cash flow hedges have been established between USD long-term debt balances and future USD export revenues. The following charts show the offsetting nature of the USD cash inflows and outflows for the next decade.

Due to high water volumes from record levels of precipitation as well as elevated export pricing, USD opportunity sales, and therefore the net long USD cash position have been elevated in fiscal 2023 and are forecast to continue to be for the remainder of the year. Currently, it is anticipated that the additional opportunity sales will add approximately USD$391 million in fiscal 2022/23. Mitigation to protect the utility from USDCAD currency fluctuations has been undertaken to reduce volatility from the additional USD sales.

Figure 5

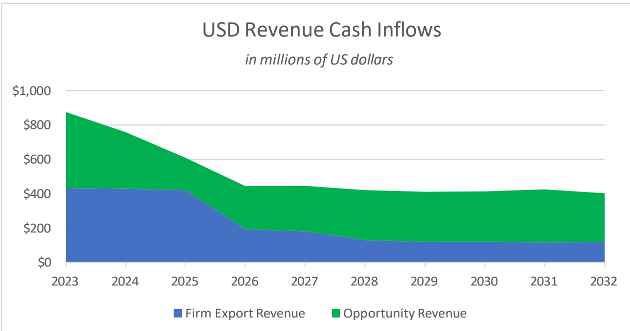
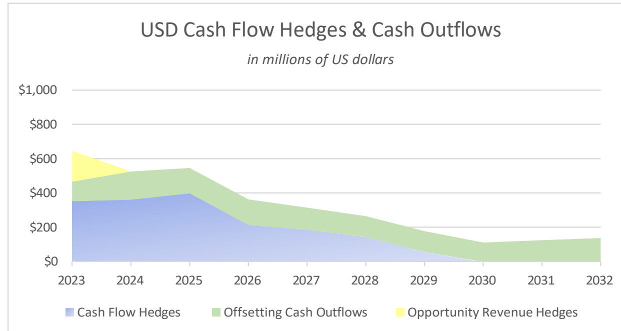


Figure 6



Treasury will manage Manitoba Hydro's USD exchange rate risk within the following risk parameters:

- Hedging transactions will be targeted to hedge 100% of Manitoba Hydro's forecast firm export revenues for a minimum of the current fiscal year and approximately the next 4 fiscal years.
- hedge transactions to rebalance the net long / (short) USD cash flow position in the current and the next fiscal year will be assessed whenever:
  - o the annual net long / (short) USD cash flow position is more than USD $100M; or
  - o a $0.10 change in the forecasted USD/CAD exchange rate will result in more than a $10 million change in forecasted net income
- An offset strategy will be utilized to match USD cash inflows and USD outflows. To bridge the actual timing of USD cash flows, foreign currency financial instruments will be used.

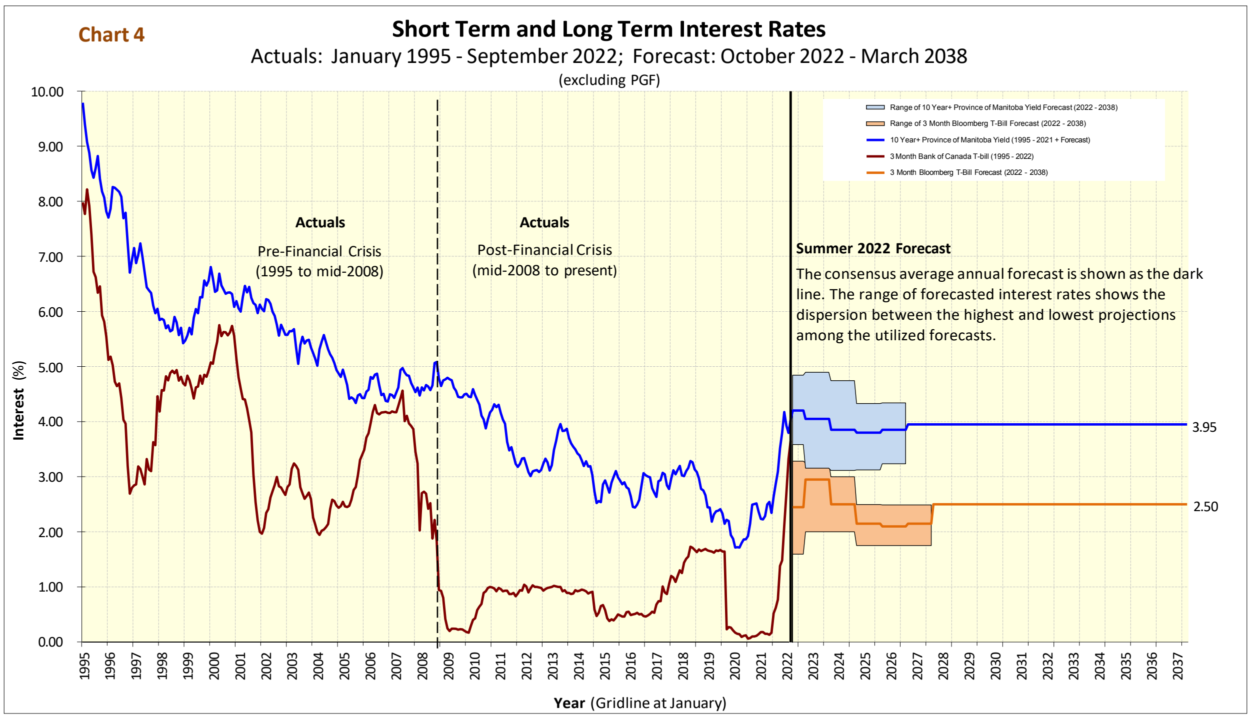
In addition to the mitigation of foreign exchange risk, Manitoba Hydro considers a number of factors when determining whether it will seek US dollar versus Canadian dollar debt; including the cost effectiveness of executing a US dollar versus a Canadian dollar issuance for available terms, and the liquidity and interest rate benefits associated with broadened access to capital within a diversified investor base.

Although provincial borrowers frequently issue long bonds in the Canadian capital markets, due to financial market conditions, provincial issuance of US dollar debt with terms greater than 10 years is unusual because the long end of the US curve has not been cost effective compared to Canada for many years. Consequently, historically, Manitoba Hydro has more heavily weighted its shorter dated long term debt issuance with new USD debt issuance, while predominantly using the Canadian markets to secure long term debt with terms equal to or exceeding 10 years.

Appendix A - Historical & Forecast Interest Rates and Credit Spreads

To illustrate the changes and trends affecting Manitoba Hydro's short and long term interest rates from 1995 to 2038, the following chart uses 3 month T-Bills for a measure of short term interest rates (red line) and the Province of Manitoba 10 Year+ bond yields for long term interest rates (blue line).

Manitoba Hydro utilizes the Manitoba Hydro 10 Yr+ rate (the average of the 10 and 30 year Province of Manitoba bond yields) to forecast the Corporation's new debt issuance as it is currently modeling a Weighted Average Term to Maturity (WATM) of forecast Canadian debt issuance of 20 years. Manitoba Hydro continues to support benchmark Canadian maturity terms of 10 and 30 years in particular, and will continue to prudently manage the interest rate risk exposure on the debt portfolio by maintaining the longer weighted average term to maturity of the debt portfolio.



As shown in Chart 5, the Province of Manitoba 10 Year+ bond yields (dark blue line) are comprised of two primary components (shown in the light blue lines):
1) the benchmark Government of Canada (GoC) 10 Year+ bond yields; and
2) the Province of Manitoba 10 Year+ credit spreads.

The credit spread represents the risk premium investors demand over the benchmark GoC bonds to hold the Province of Manitoba bonds. As shown in the red trend lines, until recently, the decline in the yields for benchmark GoC bonds have been partially offset by credit spreads that have generally drifted wider since 2005. While the GoC yields are mostly influenced by Bank of Canada monetary policy and external market forces; the credit spreads can be influenced by actions undertaken by Manitoba. Chart 6 provides enhanced focus to the credit spreads by zooming in on the y-axis.

Note the spike in the credit spread levels experienced during the financial turmoil resulting from the pandemic lockdowns in the spring of 2020. These elevated credit spread levels partially offset the declining yields of the Government of Canada benchmark bonds as investors sought out the safety of the sovereign bonds. The high levels of government debt issuance applied upward pressure on provincial credit spreads in the first half of 2020. As liquidity improved in the second half of 2020, credit spreads tightened across the curve. In 2021, credit spreads demonstrated a modest tightening bias and in 2022 have generally widened in response to volatility in markets induced by geopolitical tensions, high inflation and rising interest rates.

Chart 5 **Benchmark GoC and Manitoba 10 Year+ Bond Yields** (%) **and Manitoba 10 Year+ Credit Spreads** (%)

(January 2005 - September 2022)

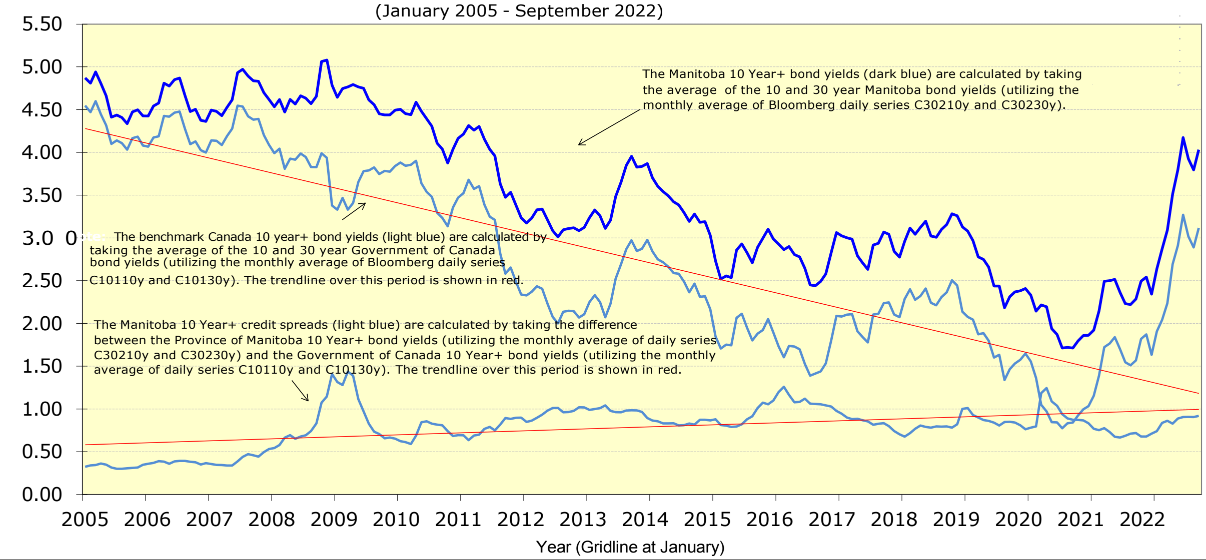
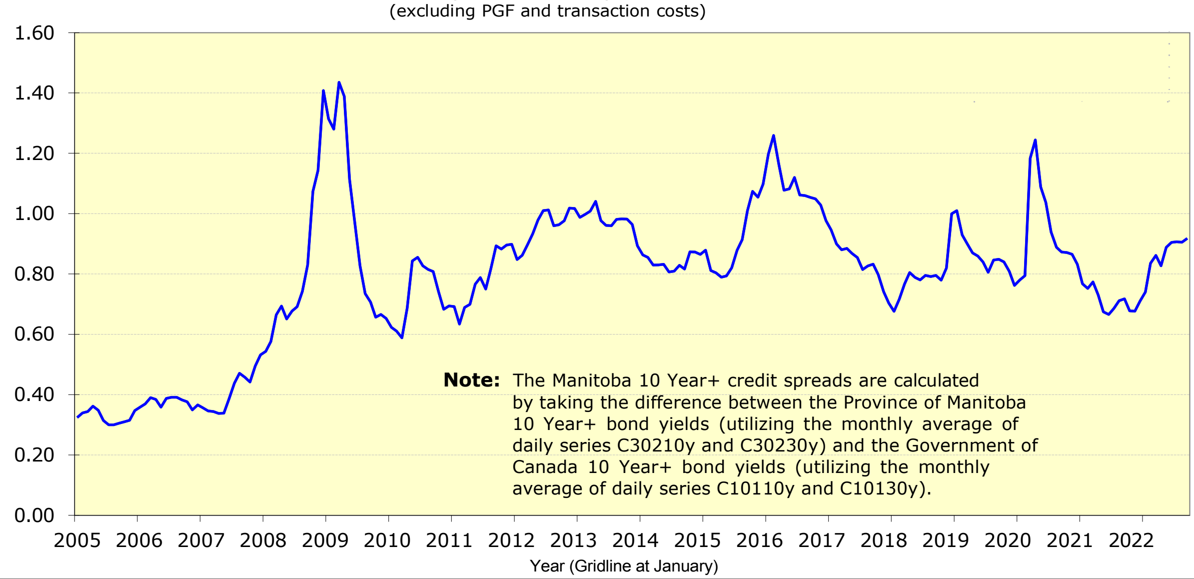


Chart 6 **Manitoba 10 Year+ Credit Spreads** (%)

January 1, 2005 - September 2022

(excluding PGF and transaction costs)



In order to mitigate the pressure on Manitoba credit spreads, Manitoba Hydro will continue to undertake a number of debt management activities, such as:

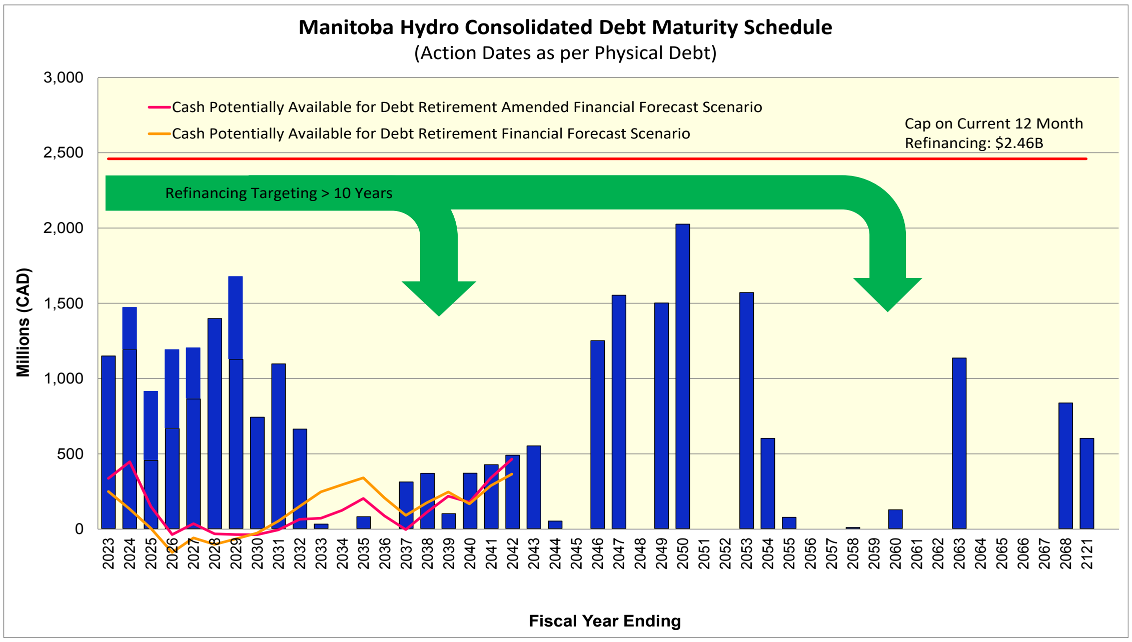
- Reducing the interest rate risk exposure on the existing debt portfolio by maintaining the proportion of floating rate debt below 10% of the total debt portfolio.

- Managing the refinancing risk within the existing debt portfolio by continuing to smooth the debt maturity schedule. This includes targeting debt issuance with terms to maturity of 10-14 years into a portion of the schedule which is currently lacking debt maturities.
- Selecting maturities that minimize the addition to the refinancing schedule in the next decade (10 years +) and target to maintain the longer term weighted average term to maturity of the debt portfolio to minimize refinancing risk and maintain stability in the portfolio.
- Reducing Manitoba Hydro's liquidity risk and enhancing financing flexibility by maintaining positive cash balances and/or access to liquidity.
- Supporting the Province of Manitoba's borrowing program by establishing benchmark sized debt issues so that investors may reduce their market risk by having liquid bonds that can be readily traded in the financial markets.
- Diversifying the investor base by varying the terms to maturity for debt issuance so that investors with different term preferences may participate in Manitoba issues.
- Diversifying the investor base beyond the domestic Canadian capital markets by issuing Manitoba bonds into international markets where cost effective.

Manitoba Hydro Debt Management Strategy (Amended) November 2022

Key Messages

- Manitoba Hydro is currently nearing the completion of a period of intensive capital investment that has seen the corporation's gross debt grow to $24.6 billion as at September 30, 2022 (debt maturities seen below). During this expansion, the majority of the capital expenditures were funded with new debt financing.



- Interest rate risk is a top risk for the corporation. With, on average, $1.1 billion in debt maturities annually potentially requiring refinancing over the next decade, there will be upward pressure on finance expense as maturing debt is currently projected to be refinanced at higher interest rates.
- Cash flow generated to fund core operations is key to Manitoba Hydro's self-sufficiency. Funding ongoing costs, maintenance capital expenditures and sinking fund contributions through internally generated cash will assist in demonstrating self-sufficiency to stakeholders and credit rating agencies.
- With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to fund yearly debt retirement.
- A focus on debt reduction and positive earnings will be viewed positively by credit rating agencies, reducing the contingent liability for the Province.
- By paying down debt today, Manitoba Hydro will reduce annual interest costs.
  - Historically, prior to reduction in payments to government, 40% of Manitoba Hydro's revenue was used to pay interest costs; this has now been reduced to 30% of revenue.
  - Paying down debt will help reduce interest costs in the near term for existing customers, as well as over the long-term.
- Manitoba Hydro is focused on ensuring the long-term financial health of the utility.

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1.0 Debt Management Objectives

Manitoba Hydro's fundamental debt management objective is to provide **low cost, stable funding** to meet the financial obligations and liquidity needs of the Corporation, while *maintaining risk at prudent levels* and *reserving sufficient flexibility* to adapt to changing circumstances. The Corporation's debt management has adapted in response to evolving financing requirements, financial market conditions and risk parameters. This document outlines the debt management strategies and tactics that will address Manitoba Hydro's projected financing requirements.

2.0 Debt Management Context

Manitoba Hydro is a capital intensive organization that makes significant investments in new and sustaining infrastructure. These investing activities are funded through cash sourced from internally generated cash flows (cash provided by operating activities) and/or external financing activities. As a Crown Corporation wholly-owned by the Province of Manitoba, Manitoba Hydro does not have access to private share capital as a source of funds. Therefore, Manitoba Hydro uses debt as a primary source of external financing.

Manitoba Hydro is currently nearing the completion of a period of intensive capital investment that has seen the corporation's gross debt grow to $24.6 billion as at September 30, 2022. During this expansion, the majority of the capital expenditures were funded with new debt financing. This increasing financial leverage has placed significant pressure upon Manitoba Hydro's financial metrics and has elevated the contingent credit liability to the Province of Manitoba. Moving forward, Manitoba Hydro will adjust debt management strategies to shift course as the utility rebuilds its self-sufficiency and financial health recovers with the in-service of the Keeyask Generating Station.

This Debt Management Strategy (DMS) is based on an Amended Financial Forecast Scenario which assumes annual 2.00% rate increases in each fiscal year until 2042. Please note, this Amended Financial Forecast Scenario will differ slightly from the Amended Financial Forecast Scenario filed as part of Manitoba Hydro's 2022 Electric General Rate Application as it refers to consolidated information as overall financing requirements of Manitoba Hydro and its subsidiaries are managed on a consolidated basis.

This Amended Financial Forecast Scenario will determine a level of future debt financing required as well as project the cash potentially available for debt retirement which will vary with changing forecast assumptions. Manitoba Hydro's DMS is guided by Strategy 2040 to take all responsible measures to ensure safe, clean, reliable energy for our customers at the lowest possible cost. The Amended Financial Forecast Scenario assumes low cost, stable rate increases of 2% each year to return the debt to capitalization ratio to a target level of 80% by fiscal 2028. With the Amended Financial Forecast Scenario, the EBITDA interest coverage ratio target level of 1.8x is met in every fiscal year of the 20 year forecast. The recently announced Provincial Guarantee Fee (PGF) and water rental fee reduction of 50% from previous levels will allow for advanced achievement of both financial targets as compared to the November 15, 2022 Financial Forecast Scenario. The Amended Scenario provides increased cash flow and net income in the first decade of the forecast which allows for potentially accelerated debt repayment and a reduction to finance expense.

Since the onset of the COVID-19 pandemic, financial markets have experienced, periods of extensive volatility and uneven market tone, thereby escalating market liquidity risk. Jointly with the Province of Manitoba, Manitoba Hydro shifted to preserve liquidity by maintaining cash balances equivalent to approximately six months of cash requirements. Concurrently, the utility was exposed to higher operational liquidity risk from the drought in 2021/22. In 2022/23, Manitoba Hydro's circumstances have seen a reversal of drought conditions. Favourable water conditions along with higher spot market prices have resulted in increased opportunity revenues. While Manitoba Hydro will benefit financially, the volatility of the cash flows remains high. While borrowing requirements have decreased from Budget 2022, the liquidity risks remain elevated and warrant the maintenance of the current level of prudential liquidity. Manitoba Hydro will consider reducing cash balances when the elevated liquidity risks abate.

Given the significant level of debt financing which Manitoba Hydro has undertaken during the last few years, the Corporation's sensitivity to interest rate changes has been elevated. The level of interest rate risk exposure to new debt financing will abate going forward as the new assets have come into service. However, over the next ten years, a large exposure to interest rate risk will lie in the refinancing of maturing long term debt. From 2022/23 to 2031/32, Manitoba Hydro will refinance or retire $10.8 billion in debt maturities or approximately $1.1 billion per year on average (approximately 4.5% of the debt portfolio). At March 31, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month period was 6% (or $1.5 billion). In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio to below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

3.0 Debt Management Strategies

Manitoba Hydro's fundamental debt management objective is to provide **low cost, stable funding** to meet the financial obligations and liquidity needs of the Corporation, while *maintaining risk at prudent levels* and *reserving sufficient flexibility* to adapt to changing circumstances. Debt management strategies and activities will adapt to evolving financing requirements, financial market conditions and risk parameters.

During the ***past decade***, the volume, frequency and complexity of the Corporation's debt management activities have increased. There was significant growth in the debt portfolio to fund the heavy capital investment program. During this period, the interest rate risk was reduced by decreasing the percentage of floating rate debt within the existing debt portfolio. In order to reduce refinancing risk, Manitoba Hydro adopted a strategy that favored longer dated debt maturities that enhanced debt stability by extending the debt portfolio's weighted average term to maturity to the current 19.5 years. These long-term bonds are in line with the service life of the utility's property, plant and equipment. Manitoba Hydro also taken advantage of the low interest rate environment to decrease the debt portfolio's weighted average interest rate to the historically low 3.4% excluding Provincial Guarantee Fee (PGF). In order to maximize the availability of the credit facility for liquidity protection, the use of the short term borrowing program was reduced. Manitoba Hydro shifted to preserve liquidity by maintaining positive cash balances funded with long term financing to enhance financing flexibility and lock in low interest rates ahead of cash requirements. In order to minimize the accumulation of gross debt, Manitoba Hydro began reducing the accumulated sinking fund balances with more frequent withdrawals, finally depleting the sinking fund reserve completely by 2016. In order to optimize the Corporation's liquidity practices and to reduce finance expense, Manitoba Hydro sought to minimize its sinking fund balances where feasible until the new capital projects were complete.

Moving forward, Manitoba Hydro will need to strike the right balance to achieve priorities of meeting customer needs and preferences, while improving Manitoba Hydro's financial health over time and ensuring system reliability to support Strategy 2040. Managing financial risks to ensure the utility moves forward in strengthening its financial health in the midst of many uncertainties (hydrology, macroeconomic environment and financial markets, future rate increases and regulatory developments, government mandates, self-sustaining status, Provincial credit ratings, evolving energy landscape…) will require strategies to be prudent, yet agile.

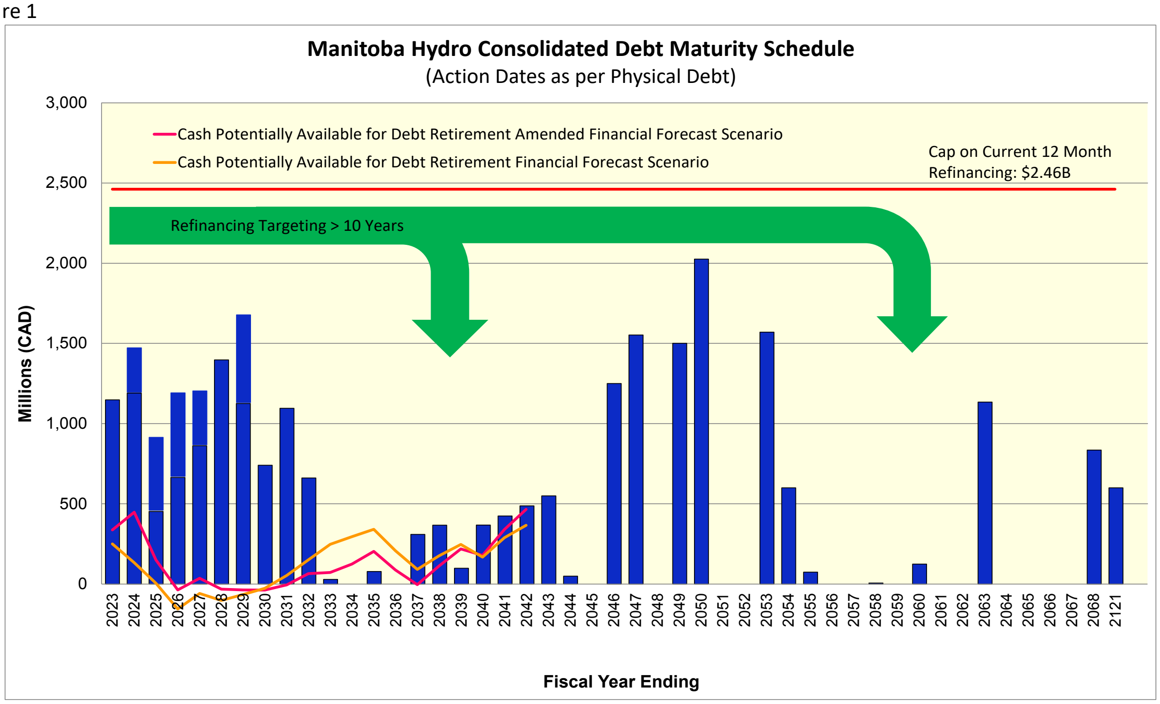
In the ***next decade****,* Manitoba Hydro will refinance or retire $10.8 billion in debt maturities (approximately 45% of the total debt portfolio) in a higher interest rate environment where the outlook is currently subject to extraordinary uncertainty. Manitoba Hydro plans include the following for the near term:

Amended Financial Forecast Scenario	Long Term Debt Maturities	Forecast Refinancing	Cash Drawdown	Potential Debt Retirement
2022/23	$1.1 billion	$0.8 billion	$0.0 billion	$0.3 billion
2023/24	$1.5 billion	$0.4 billion	$0.6 billion	$0.5 billion
2024/25	$0.9 billion	$0.8 billion	$0.0 billion	$0.1 billion

- With historically high debt levels, Manitoba Hydro will maintain the percentage of floating rate debt within the debt portfolio to below 10% to minimize the overall interest rate exposure.
- Will manage the refinancing risk within the existing debt portfolio by continuing to smooth the debt maturity schedule. This includes targeting debt issuance with terms to maturity of 10-14 years into a portion of the schedule which is currently lacking debt maturities.
- Select maturities that minimize the addition to the refinancing schedule in the next decade (10 years +) and target to maintain the longer term weighted average term to maturity of the debt portfolio to minimize refinancing risk and maintain stability in the portfolio.
- Replenish the sinking fund reserve with internally generated funds where available to make annual debt retirements and eliminating the requirement and risk associated with refinancing.
- Will mitigate liquidity risk and ensure financing flexibility by maintaining positive cash balances and/or access to liquidity.
- Will use the larger $1.5 billion short term borrowing program, once guaranteed by the Province of Manitoba, as another tool to adjust the level of floating rate debt in the portfolio.
- Will support the Province of Manitoba's borrowing program by establishing benchmark sized debt issues (in particular 10 and 30 years), and diversifying the investor base to ensure ready access to low cost, long term funding in Canadian and international markets where cost effective.
- Will continue to monitor the volumes of export revenues for additional risk mitigation opportunities.
- Will **continually re-evaluate the debt management strategies** in the context of the above-mentioned uncertainties.

The following figure 1 depicts the debt maturity schedule (blue bars) at September 30, 2022, and the green arrows reflect the expected terming of the anticipated refinancings in the next decade into the debt maturity schedule in line with the above debt management strategies. This chart also shows the cash potentially available for debt retirement (cash from operating activities less cash used for investing activities) for the period to the end of the 2042 fiscal year. The cash potentially available for debt retirement under the Amended Financial Forecast Scenario (pink line) exceeds the cash available under the November 15, 2022 Financial Forecast Scenario (orange line) in the first decade allowing for **accelerated repayment of debt and earlier achievement of financial targets**.

Figure 1



With the reduction in payments to government, Manitoba Hydro's debt is expected to be reduced by $0.9 billion over next 3 years (2022/23 to 2024/25) with a further debt reduction of $1.8 billion in the second decade of the forecast. The Amended Financial Forecast Scenario Manitoba Hydro could potentially **retire approximately $2.7 billion of debt** within the 20 year forecast timeframe. Debt reduction is a key factor towards the planned reduction in finance expense and the recovery of Manitoba Hydro's financial ratios. Under the Amended Financial Forecast Scenario, the **debt target of 80%** is achieved in **2028** and the **EBITDA interest coverage ratio target level of 1.8x** is **met in every fiscal year** of the 20 year forecast.

Potential Debt Retirement	Financial Forecast Scenario	Amended Financial Forecast Scenario	Difference
First Decade	$0.2 billion	$0.9 billion	$0.7 billion
Second Decade	$2.4 billion	$1.8 billion	($0.6) billion
Total	$2.6 billion	$2.7 billion	$0.1 billion

Cash flow generated to fund core operations is key to Manitoba Hydro's self-sufficiency. The Crown corporation should be able to meet its ongoing costs, including debt servicing costs and maintenance capital expenditures through internally generated cash and replenish the sinking fund reserve to allow for yearly debt retirement. A focus on debt reduction and positive earnings will be viewed positively by credit rating agencies and reduce the contingent liability for the Province. Debt retirement will reduce annual interest costs for Manitoba Hydro's customers and help ensure the long-term financial health of the utility.

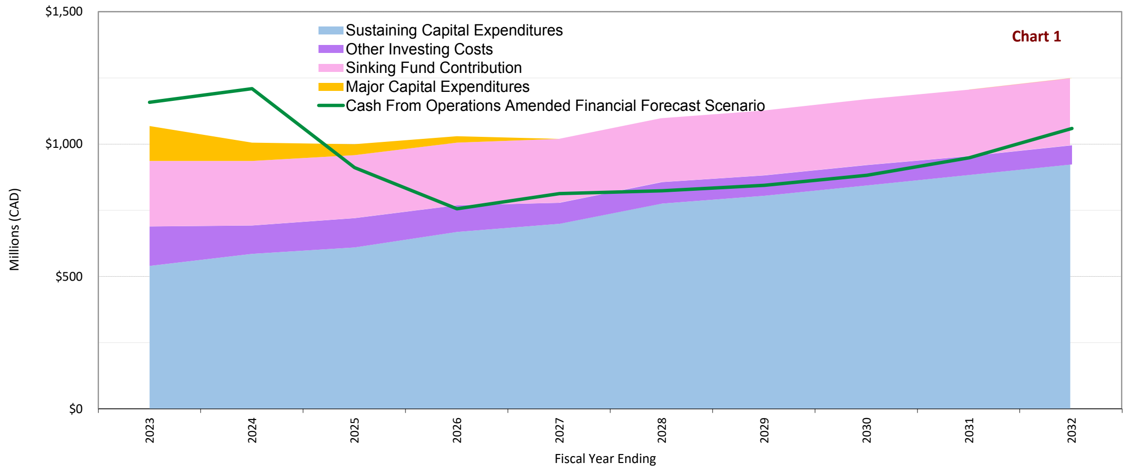
4.0 Manitoba Hydro's Capital Investments, Cash Flow and Debt Levels

Manitoba Hydro's capital program includes expenditures for Major Capital (referred to previously as Major New Generation and Transmission), which provide increased capacity, energy or reliability, as well as expenditures to meet electricity and natural gas service replacements and expansions throughout the Province. Major Capital expenditures for the five-year period to March 31, 2027, are projected to be approximately $0.3 billion, which is all attributable to the Keeyask Project.

Sustaining capital expenditures, excluding Major Projects, total approximately $3.5 billion over the five-year forecast period to 2026/27. Manitoba Hydro is investing in the replacement and refurbishment of existing assets to address the degradation and obsolescence of assets installed several decades ago, distribution assets to address increasing load requirements, as well as transmission capacity enhancements to address higher than average load growth and system expansion in certain rural and urban regions of the Province. Manitoba Hydro targets to have internally generated funds to fund the majority of these sustaining capital expenditures.

The Efficiency Manitoba Act moved the responsibility for the planning, design and implementation of Demand Side Management (DSM) programming to a new Crown corporation called Efficiency Manitoba. The electric and natural gas Demand Side Management activities of Efficiency Manitoba are to be funded by Manitoba Hydro. DSM activities for the five-year period to March 31, 2027, are projected to require approximately $0.4 billion of funding. These costs are included in operating activities on the cash flow statement.

The following chart 1 depicts Manitoba Hydro's planned capital expenditures, other investing costs (primarily cash paid for mitigation, major development and transmission rights obligations) and the sinking fund contributions from 2023 to 2032. With the exception of new major capital expenditures, **Manitoba Hydro targets to fund these ongoing costs of the operation with internally generated funds**. The Amended Financial Forecast Scenario allows for the utility to fully fund its costs including the sinking fund contribution in the first three years of the forecast providing for potentially accelerated debt retirement and improvement in financial metrics. However, with lower forecast rate increases of 2%, the utility will not see any further debt retirement until the second decade of the forecast.



Internally generated cash flows provide the base source of funding for the Corporation's capital expenditures. The total net cash provided by operating activities for the 2022/23 year is forecast to be approximately $1.2 billion which includes higher than normal cash inflows from favourable opportunity revenues and water levels. The recently announced reduction in payments to government will reduce expenses and increase internally generated cash while the reduced customer rate increases planned under the Amended Financial Forecast Scenario will reduce cash from operations. The net result in the Amended Financial Forecast Scenario is increased internally generated cash in the first decade and decreased cash from operations in the second decade as compared to the November 15, 2022 Financial Forecast Scenario [h].

Utilizing available internally generated cash flow from operations to fund investing activities reduces the amount that would otherwise need to be borrowed each year by Manitoba Hydro.

External Financing The total forecasted annual debt refinancing requirements for Manitoba Hydro in the next three year period will be as follows:

Amended Financial Forecast Scenario	Long Term Debt Maturities	Forecast Refinancing	Cash Drawdown	Potential Debt Retirement
2022/23	$1.1 billion	$0.8 billion	$0.0 billion	$0.3 billion
2023/24	$1.5 billion	$0.4 billion	$0.6 billion	$0.5 billion
2024/25	$0.9 billion	$0.8 billion	$0.0 billion	$0.1 billion

There are no new borrowing requirements in this Amended Financial Forecast Scenario for this period.

Short Term Borrowing

The primary objective of the short term borrowing program is to safeguard the Corporation from liquidity risk by providing a credit facility to support the Corporation's temporary cash requirements. The current $500 million guaranteed short term borrowing program provides only a relatively small level of liquidity protection for the Corporation. In order to maximize the availability of the credit facility for liquidity protection, the use of the short term borrowing program has been limited. When the approved and guaranteed limit is raised to a higher level by the Province (currently $1.5 billion is authorized in *The Manitoba Hydro Act*), then more risk mitigation and financing flexibility will be available. As of September 30, 2022, Manitoba Hydro had $50 million of short term debt outstanding.

Provincial Guarantee Fee

The Provincial Guarantee Fee (PGF) is an annual fee payable to the Province of Manitoba in exchange for the debt guarantee and until recently, was calculated using a rate of 1% multiplied by the applicable outstanding debt at March 31st of the previous fiscal year. On November 23, 2022, the Province of Manitoba announced the reduction of the fee to 0.5% of outstanding debt effective April 1, 2022. The Provincial Guarantee on Manitoba Hydro's debt is an essential and fundamental requirement to successfully finance Manitoba Hydro's capital programs, allowing Manitoba

Hydro to borrow at rates lower than what Manitoba Hydro could access in the market absent the Provincial guarantee.

The percentage of the fee as well as Manitoba Hydro's debt balance had both increased since the PGF's inception in 1962. The percentage of the PGF increased from 0.125% prior to 1991 to 1% beginning in 2007.

In the last seven years, the PGF payment has more than doubled reflecting elevated debt levels required to fund recent major capital development. For the fiscal year ended March 31, 2022, Manitoba Hydro made a PGF payment to the government of $229 million, which represented 7.5% of the Corporation's total revenue.

This reduction to the PGF as well as the water rental fee reduction will help to realign the utility's payments to government with those of its peers.

Sinking Fund Reserve

Manitoba Hydro is required to set aside a reserve out of the funds of the Corporation each year for the repayment of moneys borrowed by the utility. The Manitoba Hydro Act requires the Corporation to make minimum annual sinking fund contributions equal to 1% of the debt outstanding at March 31 of the preceding fiscal year plus 4% of the sinking fund balance at March 31 of the preceding fiscal year. The Sinking Fund Trust is administered by the Minister of Finance and investments made with trust funds are authorized by *The Financial Administration Act.*

The legislated minimum sinking fund contribution calculation formula allows the utility to set aside internally generated funds to retire debt borrowed for *"the acquisition or construction of property and works of the Corporation"* over a period of approximately 42 years.

Manitoba Hydro has maintained sinking fund reserves throughout history. However, due to the capital expansion of the last decade, Manitoba Hydro was reinvesting all its earnings in assets to expand its core business as well as borrowing unprecedented volumes of debt. In order to minimize the accumulation of gross debt, Manitoba Hydro began reducing the accumulated sinking fund balances with more frequent withdrawals, depleting the sinking fund reserve completely by 2016.

As Manitoba Hydro's cash flow projections at the time indicated that the Corporation's investing activities would exceed the cash flow from operations until at least 2022, the Corporation would be sourcing the incremental cash for sinking fund contributions through the issuance of additional debt – thereby incurring additional costs. At the time, in order to optimize the Corporation's liquidity practices, minimize gross debt balances and to reduce finance expense, Manitoba Hydro sought to minimize its sinking fund balances where feasible.

With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to fund yearly debt retirement.

As is evidenced in Chart 1, the Amended Financial Forecast Scenario allows for the sinking fund contribution to be sourced completely from internally generated funds in the first three years of the forecast providing for potentially accelerated debt retirement. However, in this scenario the Corporation will still need to borrow to fund all or a part of the sinking fund contribution afterwards.

Replenishing the sinking fund reserve will allow Manitoba Hydro to shift course and rebuild its self-sufficiency. The sinking fund reserve protects Manitoba Hydro against both liquidity risk and interest rate risk as it provides the utility with cash to repay debt maturity obligations each year.

This reserve protects the self-sustainability of the utility. The ability to fund contributions to the reserve from internally generated funds conveys to the financial markets and credit rating agencies that the utility is reasonably servicing its debt and setting aside funds for the debt to eventually be repaid. With weak financial metrics and debt levels as elevated as those of Manitoba Hydro's, the reserve will mitigate the risk that a portion of the utility's debt be deemed to be not self-supported with the responsibility for the debt to be assumed by taxpayers.

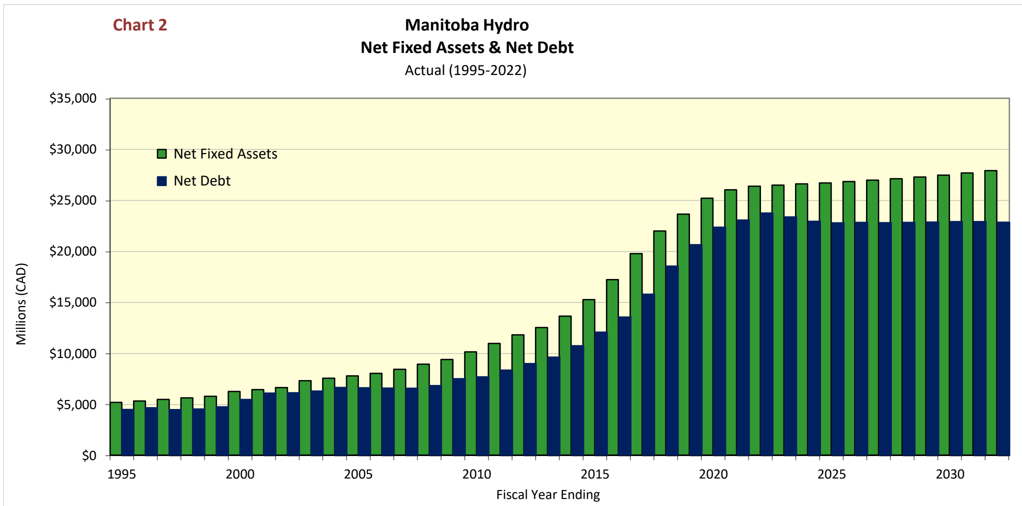
Growth in Debt

The level of Manitoba Hydro's debt is considered in the context of the associated capital investments that are in-service or under construction. The following chart 2 illustrates the growth in net fixed assets (green) and net debt (blue) since 1995. While net debt grew to approximately $23.8 billion as at March 31, 2022, the corresponding net investment in generation, transmission, distribution and other assets has grown to a net book value of approximately $26.4 billion at March

31, 2022. Moving forward, the level of Manitoba Hydro's net debt will decrease with debt retirement in fiscal 2023 to 2025 and then stabilize while the level of net fixed assets grows as the business operations capital assets are revenue-funded under the Amended Financial Forecast Scenario.

Responsibly managing outstanding debt and controlling its growth in relation to the value of the underlying revenue-generating assets is vital to ensuring the sustained financial strength of the utility.

1. The Crown corporation is accounted for as a GBE without any reservations from the jurisdiction's auditor.
2. The Crown corporation has a high degree of operational independence.
3. The Crown corporation is generally profitable and does not rely on material subsidies or supports from the provincial government.
4. The Crown corporation is *generally able to meet* its ongoing costs and maintenance capital expenditures through internally generated cash.



Self-Sustaining Status

Manitoba Hydro arranges long term financing in the form of advances from the Province of Manitoba. Manitoba Hydro's long and short term credit ratings are a flow-through of the Province of Manitoba's credit ratings. As Manitoba Hydro's net debt represents approximately 44% of the total Province of Manitoba debt at March 31, 2022, the credit rating agencies (DBRS, Moody's, and S&P) will continue to monitor Manitoba Hydro's cash flow, capital expenditures, and approved rate increases. The credit rating agencies will also monitor Manitoba Hydro's financial performance as measured by its level of retained earnings and financial ratios such as interest coverage and debt in capital structure. Manitoba Hydro currently has an Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) interest coverage ratio target of 1.8x and a debt in capital structure target of 80% by 2034/35 and 70% by 2039/40. As at March 31, 2022, the EBITDA interest coverage ratio was 1.35x and the debt ratio was 86%.

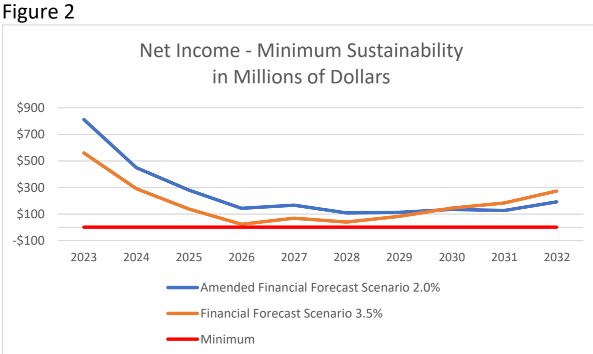
In its *2022 Canadian Provincial and Territorial Government Outlook*, (page 58), DBRS lists the following self-supporting attributes of a Crown corporation:

5. Debt servicing costs will be met through the regular course of business or through a well-defined recovery mechanism (e.g., rates).
6. Pricing or rates are set in a competitive market place or by an independent regulator.
7. The province or territory has some ability to monetize the Crown corporation or its assets in a stress scenario.

In order for the Corporation to remain self-sustaining, at a minimum, Manitoba Hydro's financial path forward should generally have positive net income and should be able to be so without support from the provincial government, should generally be able to meet its ongoing costs and business operations capital expenditure needs through internally generated funds and **must** meet all debt servicing costs through revenues.

Both the Amended Financial Forecast Scenario and the November 15, 2022 Financial Forecast Scenario in Figure 2 show net income decreasing significantly in the next three years with a return to average water levels and a reduction in forecast firm export revenues before starting to increase with the cumulative impact of proposed rate increases.

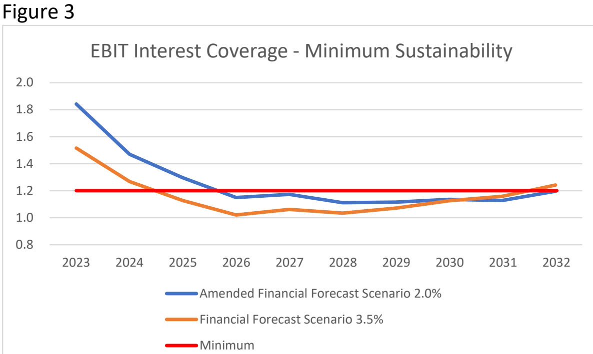
Figure 2



With respect to the Corporation being generally able to meet its ongoing costs and maintenance capital expenditure needs through internally generated cash, Chart 1 on page 7 shows that the Amended Financial Forecast Scenario allows for the utility to fully fund its costs including the sinking fund contribution in the first three years of the forecast providing for potentially accelerated debt retirement and improvement in financial metrics. However, with lower forecast rate increases, the utility will not see any further debt retirement until the second decade of the forecast.

The EBIT interest coverage ratio provides an indication as to the utility's ability to meet its interest obligations on debt. Given that interest payments must be met through internally generated funds, a ratio of greater than one is needed to ensure that obligations can be paid. A minimum of 1.2x would generally meet this requirement. As seen in figure 3, both the Amended Financial Forecast Scenario and the November 15, 2022 Financial Forecast Scenario fall short of the target in most years, putting Manitoba Hydro at risk of potentially having to borrow to fund its interest obligations in some years.

Figure 3

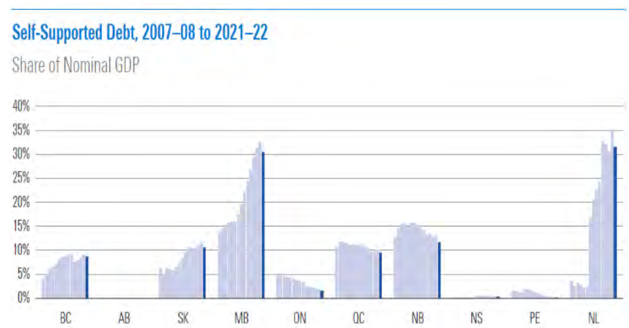


Outside of the first three forecast years, both scenarios show minimum levels of net income and cash flow for the remainder of the first decade, reinforcing the need for regular, stable rate increases throughout the decade including approval of the 3.6% rate increase in 2022.

Given the unprecedented growth in debt, credit rating agencies have been monitoring to ensure that Manitoba Hydro's debt remains self-supporting. Self-supported debt is supported by revenues from customers. Tax-supported debt is the responsibility of the Province and is supported by taxpayers. Credit rating agencies will include tax-supported debt in their calculations of the Province of Manitoba's financial metrics to assess the financial health of the Province.

In its 2022 Canadian Provincial and Territorial Government Outlook, DBRS shows that Manitoba, along with Newfoundland have the highest self-supported debt as a percentage of GDP of any of the Provinces, exceeding 30% in 2021/22 as seen in Figure 4.

Figure 4



Credit rating agencies look at the historical performance and expected future trends of financial metrics as well as business risks of the enterprise in order to assess the status of the debt. If a credit rating agency were to consider all or a portion of Manitoba Hydro's debt to be not self-supported, this debt would be added to the Province of Manitoba's tax-supported debt and would worsen the Province's financial metrics.

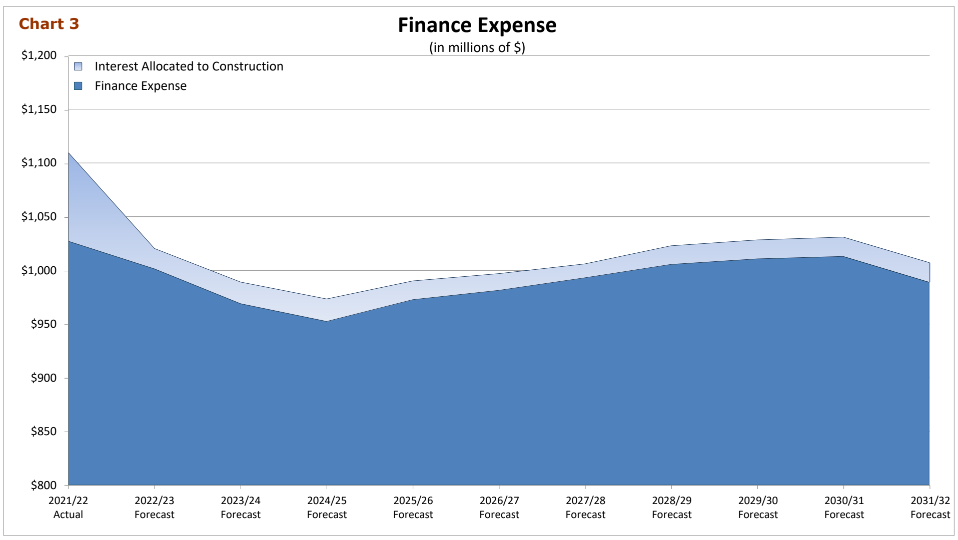
"DBRS Morningstar could consider reclassifying a portion of the Utility's debt to be tax-supported should the financial health of the Utility deteriorate to the point where its expenses cannot be recovered through rates or export revenues." "If this were to occur, it could potentially put downward pressure on the Province's credit rating."

– DBRS report on Manitoba Hydro December 9, 2020

FINANCE EXPENSE

The growth in the debt portfolio has had a significant impact upon finance expense. By paying down debt today, Manitoba Hydro will reduce annual interest costs. Prior to the reduction in payments to government, 40% of Manitoba Hydro's revenue was used to pay interest costs. Now, approximately 30 cents of every dollar that customers pay to Manitoba Hydro goes to pay the interest costs on Manitoba Hydro's debt. Retiring debt will help reduce interest costs further in the near term for existing customers, as well as over the long-term.

The following chart depicts the actual and forecasted finance expense from 2021/22 to 2031/32.



Gross interest in 2021/22 rose to over $1.1 billion as the end of the capital expansion approached. The interest allocated to construction (lightly shaded blue area) is the interest capitalized during the construction of a project, which is a reduction to finance expense and a charge to the capital project. The interest associated with a capital project is not included on the income statement until the project is placed into service and reduces gross finance expense to arrive at net finance expense (dark blue area) on the financial statements.

Consequently, although cash will still be required to pay the gross interest on debt, during periods of intensive capital construction, the accounting net finance expense is temporarily shielded from the full weight of the gross interest expense by interest allocated to construction.

By 2022/23, as the level of new capital investments subside, the net finance expense closely approaches the total interest on debt of over $1.1 billion per year.

Hydrology risk has significantly impacted the utility's financial performance in fiscal 2021/22 and 2022/23 in vastly different directions. While drought conditions in 2021/22 pushed the utility to additionally borrow close to $400 million, favourable water in 2022/23 has Manitoba Hydro projecting higher than normal cash inflows from favourable opportunity revenues of nearly $400 million. The favourable impact of export revenues is timely in a year where Manitoba Hydro's income statement is bearing the full brunt of finance expense and depreciation expense from the in-service of Keeyask generating station. Financial metrics show vast improvement over prior years, however the favourable water conditions and high spot market prices on opportunity sales in 2022/23 cannot be relied upon to keep Manitoba Hydro self-sustaining. As can be seen on chart 3, the EBIT interest coverage ratio dips to 1.1x and net income to just over $100 million by 2028 indicating that the utility is potentially at risk of not being able to pay its interest payments with internally generated cash.

Manitoba Hydro is projecting to have cash available to retire approximately $0.3 billion of debt in 2022/23, $0.5 billion in 2023/24 and $0.1 billion in 2024/25. However, with forecasts returning to average water levels, financial metrics weaken considerably in 2026 and remain challenged for the remainder of the decade. Note, finance expense begins to increase again as net debt remains stable but maturing debt is refinanced at higher interest rates. With the Amended Financial Forecast Scenario rate increases of 2.0%, the utility will have cash potentially available for debt retirement beginning in 2032, but net debt will not begin to decrease regularly until then. In the event this scenario does not unfold as projected, the future availability of cash for the utility will be impacted. There will be deviations from these forecast assumptions which will impact Manitoba Hydro's future debt retirement.

5.0 Financial Market Commentary and Treasury Financial Risks

This section of the debt management document will provide a commentary on the financial markets within which Manitoba Hydro will access the required financing, as well as the Corporation's associated risk policies and guidelines; most notably for liquidity risk, interest rate risk, and foreign currency exchange risk.

Manitoba Hydro aims to balance costs and risks associated with the debt structure against evolving economic conditions. Manitoba Hydro has established an Enterprise Risk Management Program to strategically manage enterprise risks through an integrated, forward looking and standardized approach.

Liquidity risk refers to the risk that Manitoba Hydro will not have sufficient cash or cash equivalents to meet its financial obligations as they come due. Manitoba Hydro will meet its financial obligations when due through cash generated from operations, short term borrowings, long term borrowings advanced from the Province of Manitoba, and where applicable, sinking fund withdrawals.

Overall financing requirements of Manitoba Hydro and its subsidiaries are managed on a consolidated basis. The Corporation closely monitors its cash receipts and disbursements on a daily basis as part of regular cash balancing activities. The Corporation also monitors short term debt balances and forecasted cash requirements to ensure that it has sufficient cash to meet near term financial obligations as they come due.

Liquidity risk can generally be subdivided into two categories:

1) **operational liquidity risk** (the availability of internally generated cash flow from operations), and
2) **market liquidity risk** (the availability of externally sourced debt financing from within the financial markets).

Operational liquidity risk arising from the availability of internally generated cash flow from operations is most pronounced for Manitoba Hydro during drought conditions as cash shortfalls occur or are exacerbated as revenues decline. For example, during the 2003/04 drought, cash flows from operating activities were negative. In order to maintain business continuity and to fund ongoing capital investments, additional debt financing was required during that time. In 2021/22, the majority of the impact of the drought was financed with additional debt as Manitoba Hydro recorded a net loss of $248 million.

Cash from operations has been decreasing over the last decade, averaging $118 million per year between 2018 to 2022, down from an average $543 million per year between 2013 to 2017. However, in 2022/23 water conditions have been very favourable and it is anticipated that internally generated cash flows will be above historical levels over the next couple years owing to additional export opportunity revenues. In addition, the recently announced reduction in payments to government will reduce expenses and increase internally generated cash allowing for lower forecast customer rate increases.

Market liquidity risk is the risk that the utility will not be able to access sufficient cash via the Province of Manitoba's debt financing from within the financial markets in order to meet its obligations. Market liquidity risk has been elevated for the utility, particularly since the onset of the pandemic in March 2020. Jointly, with the Province of Manitoba, Manitoba Hydro has shifted to preserve liquidity by maintaining cash balances equivalent to approximately six months of cash requirements and will continue to do so until such time as the market volatility abates.

It is anticipated in the Amended Financial Forecast Scenario that Manitoba Hydro will decrease cash on hand as the financing requirements decrease. In fiscal 2022/23 Manitoba Hydro forecasts to maintain an average cash balance of approximately $850 million. Cash balances dipped in the middle of the fiscal year; however, they will ramp up to reach approximately $1 billion by yearend in preparation for approximately $1.4 billion of debt maturities in the first quarter of 2023/24.

In response to challenging market conditions, investors active in the provincial space will seek out positions in large, highly liquid bonds that can be readily traded in the financial markets, most notably bonds issued by Ontario and Quebec, as opposed to less frequent issuers such as Manitoba. Large, carve out deals were quite prominent in 2020 after the onset of the pandemic, however, they dropped considerably in 2021 and 2022. Carve-outs are done by the issuer with an investor to allow the buyer the chance to acquire part of the overall issue in larger amounts than otherwise would be available. This funding process has historically enabled provinces to successfully issue in soft market conditions. Manitoba's maximum carve out size must not exceed 50% of the total issue size.

Continuing on the same trend as in 2021/22, provincial borrowing needs for 2022/23 are expected to be lowered from Budget levels. The updated fiscal outlooks and Public Accounts data that are being released by the provinces indicate that many issuers are reporting stronger fiscal performance, mainly driven by higher tax revenues and natural resource royalties. Year to date, the total provincial issuance is about 35% lower than the same period last year with domestic provincial issuance being approximately 26% lower and offshore provincial issuance about 53% lower.

Manitoba Hydro works with the Province of Manitoba to support the Provincial borrowing program. The bulk of the funding program in 2022/23 has been and will be completed in the Canadian domestic market with continued bias towards benchmark issuances versus Medium Term Notes. In the domestic market, the focus is on ensuring large benchmark issues in both the 10 and 30-year terms. This creates a robust secondary trading market in Manitoba bonds that investors demand, ensuring ongoing interest in future issuances.

Manitoba will supplement its domestic borrowing by opportunistically accessing the offshore markets mainly in the US, European and Australian markets. Utilizing foreign markets allows for investor diversification. Purchasers of Manitoba bonds often have limits on how much they can hold of a specific credit and by increasing the investor universe; it improves access to capital to meet borrowing requirements. It also indicates to primary investors in the domestic market that Manitoba has alternative sources of capital, which helps stabilize the spreads in Canada. Manitoba will only borrow in international markets if the costs are competitive, which can generate savings when compared to issuing in the domestic market.

Within Canada, public debt issuance in the 5, 10 and 30 year terms remained the norm. Ultra-long issuance with terms greater than 30 years was sporadic and there has been a repricing of this part of the yield curve due to the heavier participation in this sector by the Government of Canada. There has been a decrease in provincial floating rate note issuance in the last few years as the shift and transition in reference rates takes hold. The current reference rate for Canadian floating rate long term debt is CDOR (bankers acceptances). This will be replaced by CORRA in a two phase approach. On June 30, 2023, all new contracts will only use CORRA. On June 30, 2024, CDOR will cease to exist, leaving issuers an extra year to transition existing CDOR contracts to CORRA and more CDOR contracts to mature.

Markets have been extremely volatile in 2022 as geopolitical tensions, high inflation and rising interest rates have created uncertainty. Issuing into these volatile markets has been challenging. Looking ahead, public sector issuers are expected to continue to monitor market conditions for issuance opportunities.

On April 15, 2020, *The Manitoba Hydro Act* was amended to increase Manitoba Hydro's legal limit on promissory notes from $0.5 billion to $1.5 billion. The increased limit will become operational pending changes to the Financial Administration Act which are anticipated in 2022. When the approved and guaranteed limit is raised to a higher level by the Province of Manitoba (currently $1.5 billion is authorized in the Manitoba Hydro Act), then more risk mitigation and financing flexibility will be available.

Sinking fund balances are another source of cash. The sinking fund reserve protects Manitoba Hydro against both liquidity risk and interest rate risk as it provides the utility with cash to repay debt maturity obligations. With the new capital assets now in service, Manitoba Hydro targets to replenish the sinking fund reserve with cash from operations to allow for yearly debt retirement.

Interest rate risk is the risk that future cash flows will fluctuate due to changes in market interest rates. There are a number of forms of interest rate risk affecting the existing debt portfolio. Floating or variable rate debt is subject to interest rate reset risk during the life of the debt as the interest rate is adjusted at the periodic reset dates. Refinancing risk pertains to the interest rate exposure that exists upon refinancing a short or long term debt issue at its maturity. On a prospective basis, there is also interest rate risk on borrowings for new cash requirements.

Canadian Rates

On October 26, 2022, the Bank of Canada (BoC) increased the overnight rate by 50 basis points to 3.75%, lower than an expected increase of 75bps. The move represented the 6th consecutive hike this year, marking the fastest monetary policy-tightening campaign on record. BoC officials suggested that “rates will need to rise further”, though the policy rate is close to the end of its tightening phase. The December 2022 rate decision will be largely affected by the upcoming economic growth and inflation data.

Inflation has slowed to 6.9% year over year on the back of lower energy prices, however, core inflation proves to be stubborn with a higher than expected print of 6.0% for September. September GDP stalled to 0.1%, while Bank of Canada expects the next few quarters to have little to no economic growth as policy tightening fully feeds through, projecting overall growth in 2023 to be 0.9%. Another 25 basis point rate increase at the December meeting is largely anticipated. The terminal rate is projected to be 4.25%.

US Rates

On November 2, 2022, the Federal Reserve delivered their 6th consecutive rate hike of the year and 4th consecutive hike of 75 basis points, bringing the upper bound of the Federal Funds Rate to 4.00%. The 75 basis point rate increase was in line with market expectations, with Fed Chair Powell conveying the need for a restrictive policy stance. Powell stated that it's very premature to think about pausing rate hikes at this point and that there is still a ways to go. However, the Fed suggested a possibly slower cadence for rate hikes going forward by explicitly acknowledging the lagged effect of the aggressive tightening to date on the economy and inflation, and the fact that the policy stance is now more materially restrictive. The terminal fed funds rate is now forecast to be 4.75% at the upper bound.

Given the significant level of debt financings which Manitoba Hydro has undertaken during the last few years, the Corporation’s sensitivity to interest rate changes has been elevated. The level of interest rate risk exposure to new debt financing will abate going forward as the new assets have come into service. However, over the coming years, a large exposure to interest rate risk will lie in the refinancing of maturing long term debt. Over the next decade, the corporation will refinance or retire approximately $1.1 billion per year on average. The interest rate risk on the existing debt portfolio has been reduced by decreasing the percentage of floating rate debt within the debt portfolio.

As the utility’s exposure to interest rate risk has changed, so too has the interest rate environment, with the Bank of Canada’s target rate rising 3.5% from March 2022 to October 2022. With interest rates increasing, Manitoba Hydro’s debt portfolio with a WAIR of 3.4% will be refinanced with debt at higher rates (forecast WAIR of 3.86%) and this will put upward pressure on Manitoba Hydro’s finance expense.

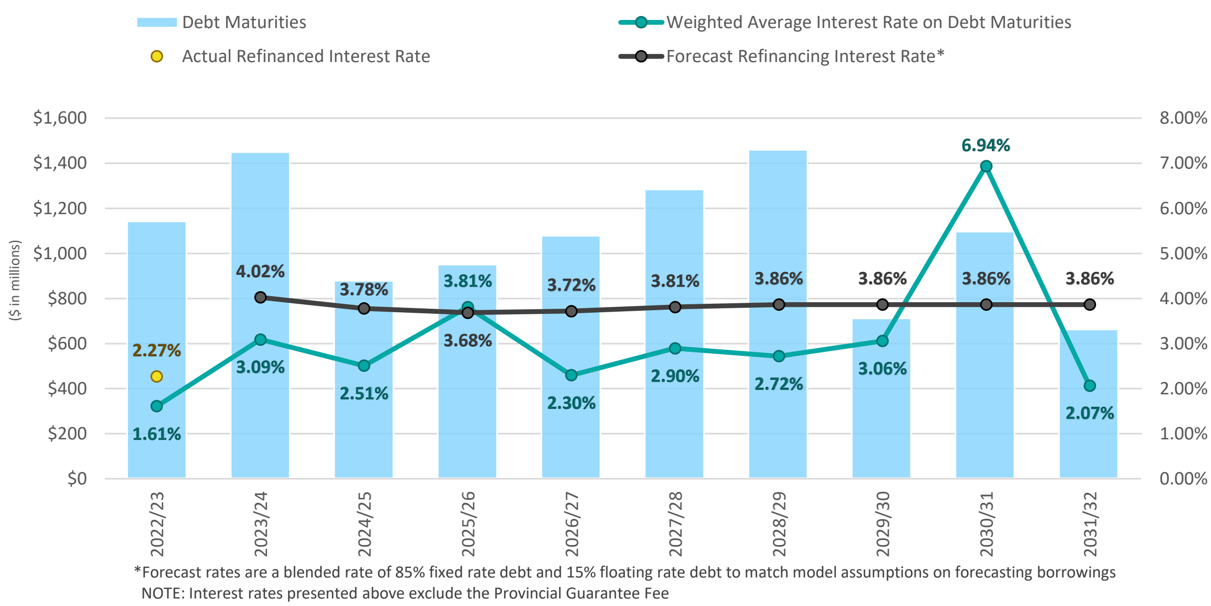
At September 30, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month was 8% or $1.9 billion. In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

The pandemic increased volatility and resulting economic impacts drove interest rates to historically low levels as can be seen in the charts 4, 5 and 6 in Appendix A. To build liquidity when the pandemic struck, Manitoba Hydro secured its first ever Century bonds, issuing $600 million at a yield of 2.97% in April 2020. Manitoba Hydro has secured long term debt transacted at historically low interest rates while adding further stability and minimizing refinancing risk to the debt portfolio.

The interest rate outlook has been subject to extraordinary uncertainty. The current rise in interest rates in 2022 and the continued upside risk to the rate outlook raises uncertainty and volatility in markets. With the tightening of monetary policy this year having occurred at a record pace, it is anticipated that the margins of error around interest rate outlooks will be wider than usual in the coming months.

Higher rates are pushing up debt servicing costs. A 100-basis point sustained interest rate increase could increase refinancing for Manitoba Hydro debt by $28 million in 2024, building to an incremental $107 million by 2028. Sensitivities are greater now that the debt levels are markedly higher than before the capital expansion. Notwithstanding a decrease in new borrowing requirements, the trajectory of debt servicing costs remains a focus for rating agencies monitoring Manitoba Hydro's ability to service its debt obligations. The following figure shows the volumes of maturities and the differential in rates at which refinancings are expected to occur.

Figure 4

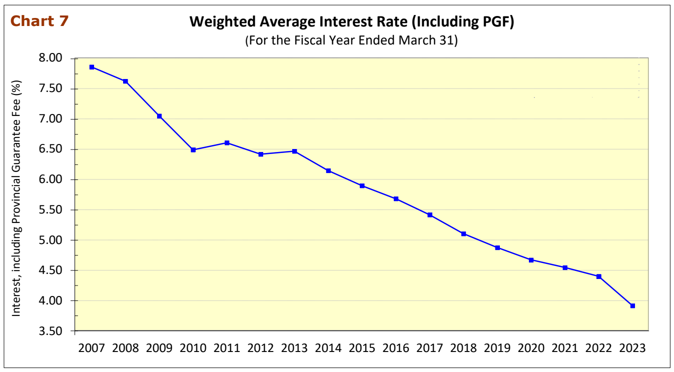


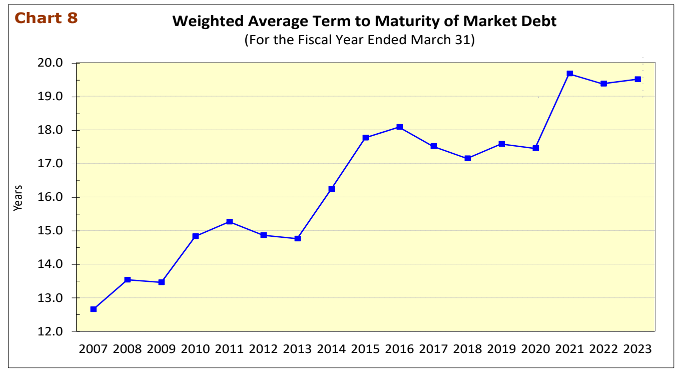
To protect against rising interest rates Manitoba Hydro chose to extend the term to maturity of its debt issuance throughout the capital expansion during a period of historically low interest rates. By actively extending the maturity profile of its debt portfolio when interest rates were low, Manitoba Hydro aimed to avoid the risk of refinancing debt in less favourable market conditions. The pre-funding which was completed in 2021/22 for fiscal 2022/23 bears a WAIR of 2.14%, much less than the forecast rate of 4.1% for 2022/23 locking in savings of approximately $21 million annually for on average 15 years.

The extraordinary low interest rate environment of the last decade has provided the opportunity for Manitoba Hydro to secure stable, low cost funding. As shown on the following charts 7 & 8, since 2006/07, the debt portfolio's weighted average term to maturity of its debt portfolio has increased by approximately 7 years and the weighted average interest rate has decreased by over 3%.

At September 30, 2022, the entire debt portfolio was at nearly the longest weighted average term to maturity (WATM) in Manitoba Hydro's history at **19.5 years** (March 2021 – 19.7 years) as well as being at the lowest weighted average interest rate (WAIR) in history at **3.4%** (not including the PGF). Please note, in Chart 7, the reflected reduction of 0.5% in PGF in fiscal 2023.

The current market issuance rate (at date of writing, November 7, 2022), inclusive of commissions, for a Manitoba 10+ Year is 4.60% or 1.2% above of the current WAIR of the debt portfolio (3.4%), and $295 million higher in interest costs annually (for 19.5 years) on the $24.6 billion debt portfolio.





At September 30, 2022, the aggregate of floating rate debt, short term debt, and fixed rate long term debt to be refinanced within the subsequent 12 month was 8% or $1.9 billion. With the capital expansion largely complete and against the backdrop of unprecedented growth in debt levels Manitoba Hydro's sensitivity to interest rate changes is high. In order to mitigate the interest rate risk on the total debt portfolio, which has tripled in size since 2009, Manitoba Hydro will maintain the percentage of floating rate debt within the portfolio below 10% to minimize the overall exposure, particularly in light of the current rising interest rate environment.

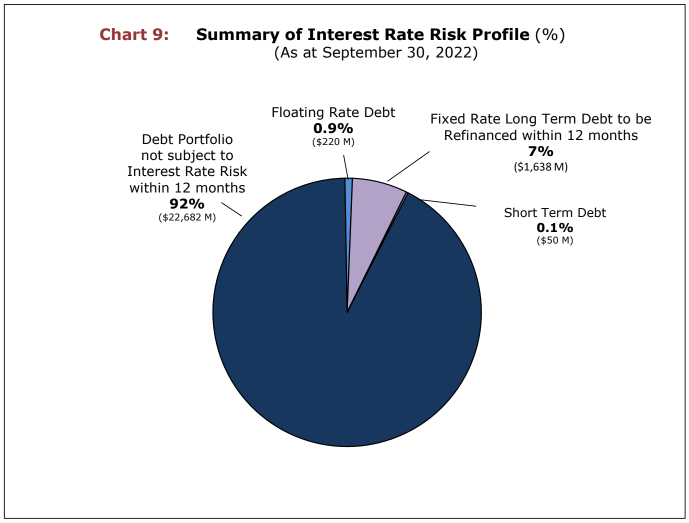
Manitoba Hydro's new interest rate policy on its existing debt portfolio is to limit the aggregate of:
i) floating rate debt,
ii) short term debt, and
iii) fixed rate long term debt to be refinanced within the subsequent 12 month period;
to a maximum of 25% of the total debt portfolio.

During years in which there are significant refinancings, in order to manage the overall interest rate risk profile, the Corporation's interest rate risk on its existing debt portfolio may be reduced by decreasing the percentage of aggregated short term and floating rate long term debt to ensure compliance with the policy statement.

In years in which there are significant new planned borrowings for prospective cash requirements, in order to manage the overall prospective interest rate risk profile, the Corporation's interest rate risk on its existing debt portfolio may be reduced by decreasing the percentage of aggregated short term and floating rate long term debt to ensure that if planned borrowings occur, the Corporation would continue to be compliant with the policy statement and maintain low cost, stable funding for the benefit of the utility's customers.

Manitoba Hydro's debt management guidelines for its existing debt portfolio include:
- maintaining an aggregate of short term debt and floating rate long term debt within 0 – 20% of the total debt portfolio target range, and
- having the net long term debt to be refinanced within a 12 month period being less than 10% of the total debt portfolio.

Chart 9 provides a summary of Manitoba Hydro's interest rate risk profile on the existing debt portfolio as at September 30, 2022, showing that approximately 8% (or $1.9 billion) is currently at risk of movements in interest rates. The *prospective interest rate risk profile*, which also includes new borrowings and refinancing of underlying debt within the next 12 months, will be the same as the current interest rate risk profile as there are no new planned borrowings in 2023/24 as capital expenditures are forecast to be funded with cash from operations.



Foreign currency exchange risk represents the potential for financial gain or loss due to foreign exchange movements for any transaction denominated in a currency other than Canadian (CAD) funds.

Manitoba Hydro has exposure to USD foreign exchange rate fluctuations primarily through the sale and purchase of electricity in the US and through borrowing in USD markets to support the Province of Manitoba's USD borrowing program. From an enterprise perspective, risk appetite to foreign exchange risk is low. This risk is mitigated to ensure net income is largely protected from movements in the USDCAD exchange rate.

While Manitoba Hydro has significant net export revenues denominated in United States dollars, the Corporation's exposures to foreign currency rate fluctuations on USD revenues are managed with the combination of natural and accounting hedges. In order to mitigate the foreign currency exchange risk on USD revenues, Manitoba Hydro borrows partly in USD to match outflows from USD debt with inflows from USD revenues. At September 30, 2022, the portion of Manitoba Hydro's debt portfolio that was made up of USD debt principal was 9%.

To the extent that the underlying USD inflows and outflows are in balance, while a strengthening US dollar will increase the translation of USD export revenues into CAD, this change will be offset by increases in the translation of USD dollar expenses (such as USD dollar interest expense) into CAD.

Manitoba Hydro has a long-term natural hedge between USD cash inflows from export revenues and USD cash outflows for long-term interest and principal payments, USD provincial guarantee fee, USD fuel and power purchases and other USD purchases. Long-term accounting cash flow hedges have been established between USD long-term debt balances and future USD export revenues. The following charts show the offsetting nature of the USD cash inflows and outflows for the next decade.

Due to high water volumes from record levels of precipitation as well as elevated export pricing, USD opportunity sales, and therefore the net long USD cash position have been elevated in fiscal 2023 and are forecast to continue to be for the remainder of the year. Currently, it is anticipated that the additional opportunity sales will add approximately USD$391 million in fiscal 2022/23. Mitigation to protect the utility from USDCAD currency fluctuations has been undertaken to reduce volatility from the additional USD sales.

Figure 5

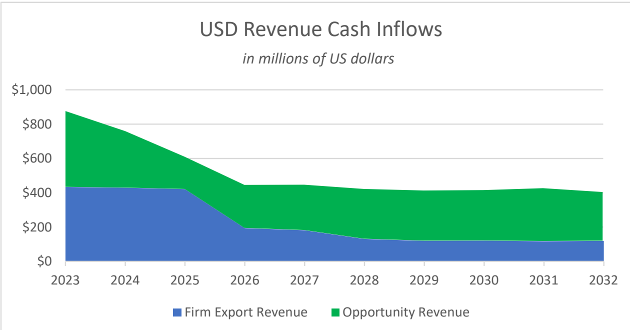
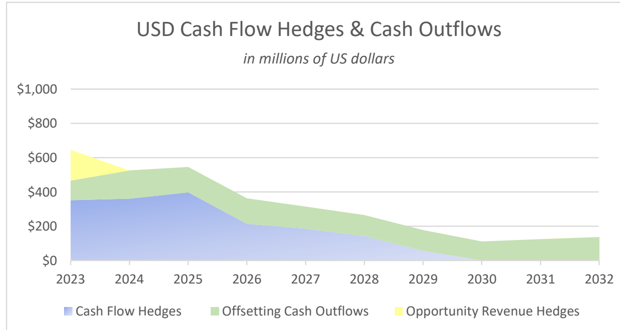


Figure 6



Treasury will manage Manitoba Hydro's USD exchange rate risk within the following risk parameters:

- Hedging transactions will be targeted to hedge 100% of Manitoba Hydro's forecast firm export revenues for a minimum of the current fiscal year and approximately the next 4 fiscal years.
- hedge transactions to rebalance the net long / (short) USD cash flow position in the current and the next fiscal year will be assessed whenever:
  - o the annual net long / (short) USD cash flow position is more than USD $100M; or
  - o a $0.10 change in the forecasted USD/CAD exchange rate will result in more than a $10 million change in forecasted net income
- An offset strategy will be utilized to match USD cash inflows and USD outflows. To bridge the actual timing of USD cash flows, foreign currency financial instruments will be used.

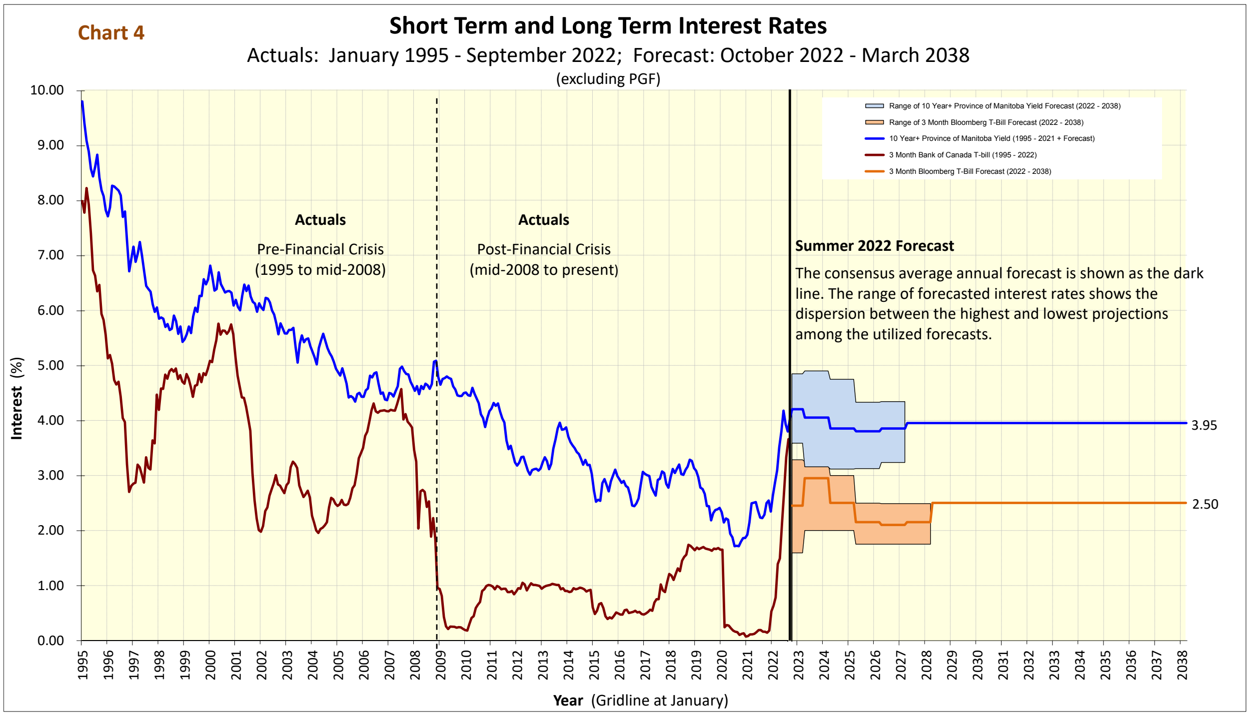
In addition to the mitigation of foreign exchange risk, Manitoba Hydro considers a number of factors when determining whether it will seek US dollar versus Canadian dollar debt; including the cost effectiveness of executing a US dollar versus a Canadian dollar issuance for available terms, and the liquidity and interest rate benefits associated with broadened access to capital within a diversified investor base.

Although provincial borrowers frequently issue long bonds in the Canadian capital markets, due to financial market conditions, provincial issuance of US dollar debt with terms greater than 10 years is unusual because the long end of the US curve has not been cost effective compared to Canada for many years. Consequently, historically, Manitoba Hydro has more heavily weighted its shorter dated long term debt issuance with new USD debt issuance, while predominantly using the Canadian markets to secure long term debt with terms equal to or exceeding 10 years.

Appendix A - Historical & Forecast Interest Rates and Credit Spreads

To illustrate the changes and trends affecting Manitoba Hydro's short and long term interest rates from 1995 to 2038, the following chart uses 3 month T-Bills for a measure of short term interest rates (red line) and the Province of Manitoba 10 Year+ bond yields for long term interest rates (blue line).

Manitoba Hydro utilizes the Manitoba Hydro 10 Yr+ rate (the average of the 10 and 30 year Province of Manitoba bond yields) to forecast the Corporation's new debt issuance as it is currently modeling a Weighted Average Term to Maturity (WATM) of forecast Canadian debt issuance of 20 years. Manitoba Hydro continues to support benchmark Canadian maturity terms of 10 and 30 years in particular and will continue to prudently manage the interest rate risk exposure on the debt portfolio by maintaining the longer weighted average term to maturity of the debt portfolio.



As shown in Chart 5, the Province of Manitoba 10 Year+ bond yields (dark blue line) are comprised of two primary components (shown in the light blue lines):
1) the benchmark Government of Canada (GoC) 10 Year+ bond yields; and
2) the Province of Manitoba 10 Year+ credit spreads.

The credit spread represents the risk premium investors demand over the benchmark GoC bonds to hold the Province of Manitoba bonds. As shown in the red trend lines, until recently, the decline in the yields for benchmark GoC bonds have been partially offset by credit spreads that have generally drifted wider since 2005. While the GoC yields are mostly influenced by Bank of Canada monetary policy and external market forces; the credit spreads can be influenced by actions undertaken by Manitoba. Chart 6 provides enhanced focus to the credit spreads by zooming in on the y-axis.

Note the spike in the credit spread levels experienced during the financial turmoil resulting from the pandemic lockdowns in the spring of 2020. These elevated credit spread levels partially offset the declining yields of the Government of Canada benchmark bonds as investors sought out the safety of the sovereign bonds. The high levels of government debt issuance applied upward pressure on provincial credit spreads in the first half of 2020. As liquidity improved in the second half of 2020, credit spreads tightened across the curve. In 2021, credit spreads demonstrated a modest tightening bias and in 2022 have generally widened in response to volatility in markets induced by geopolitical tensions, high inflation and rising interest rates.

Chart 5 **Benchmark GoC and Manitoba 10 Year+ Bond Yields** (%) **and Manitoba 10 Year+ Credit Spreads** (%)

(January 2005 - September 2022)

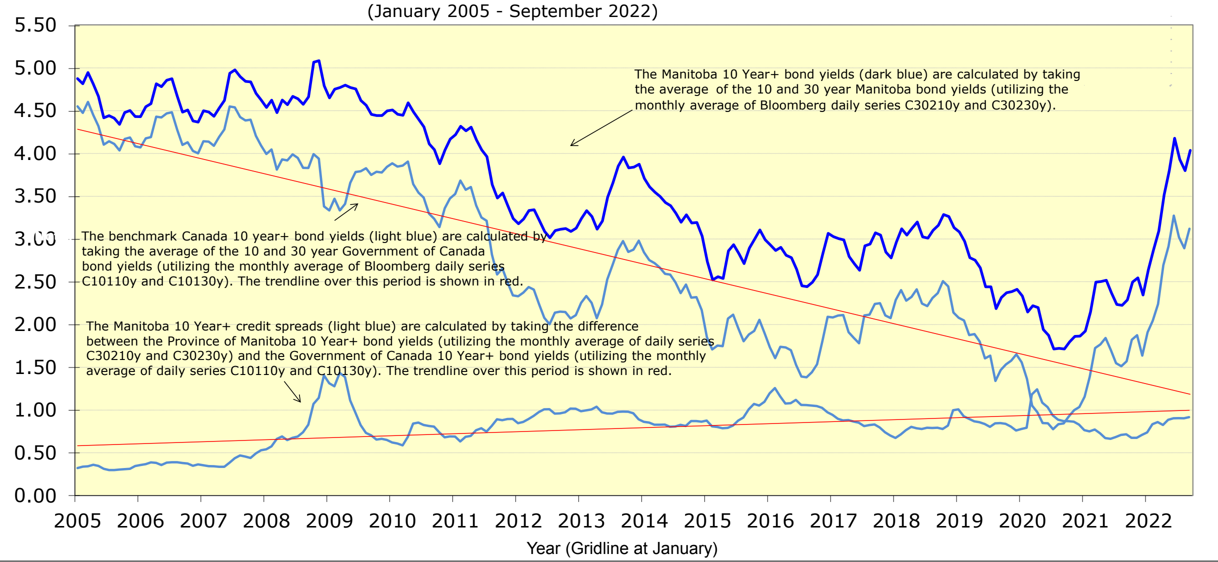
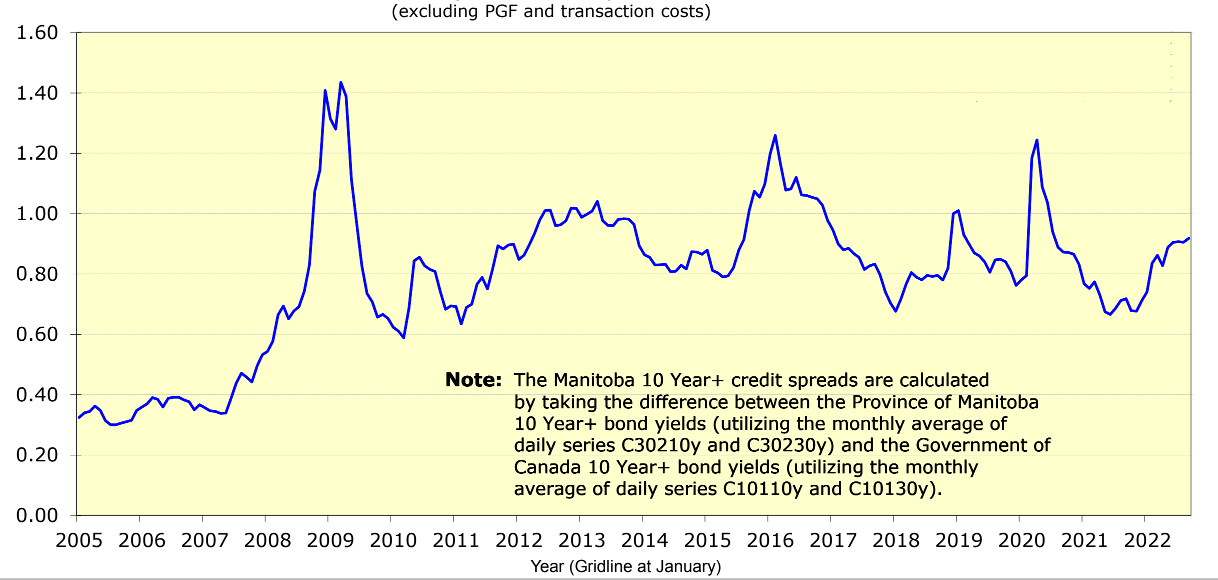


Chart 6 **Manitoba 10 Year+ Credit Spreads** (%)

January 1, 2005 - September 2022

(excluding PGF and transaction costs)



In order to mitigate the pressure on Manitoba credit spreads, Manitoba Hydro will continue to undertake a number of debt management activities, such as:

- Reducing the interest rate risk exposure on the existing debt portfolio by maintaining the proportion of floating rate debt below 10% of the total debt portfolio.

- Managing the refinancing risk within the existing debt portfolio by continuing to smooth the debt maturity schedule. This includes targeting debt issuance with terms to maturity of 10-14 years into a portion of the schedule which is currently lacking debt maturities.
- Selecting maturities that minimize the addition to the refinancing schedule in the next decade (10 years +) and target to maintain the longer term weighted average term to maturity of the debt portfolio to minimize refinancing risk and maintain stability in the portfolio.
- Reducing Manitoba Hydro's liquidity risk and enhancing financing flexibility by maintaining positive cash balances and/or access to liquidity.
- Supporting the Province of Manitoba's borrowing program by establishing benchmark sized debt issues so that investors may reduce their market risk by having liquid bonds that can be readily traded in the financial markets.
- Diversifying the investor base by varying the terms to maturity for debt issuance so that investors with different term preferences may participate in Manitoba issues.
- Diversifying the investor base beyond the domestic Canadian capital markets by issuing Manitoba bonds into international markets where cost effective.

Appendix B - Legislative Framework for Manitoba Hydro Financing

Manitoba Hydro's authority to issue debt is provided through *The Manitoba Hydro Act, The Appropriations Act*, and *The Financial Administration Act*.

The Manitoba Hydro Act grants the Corporation the authority to issue long-term debt to finance corporate requirements. The Act also grants the Corporation the power to issue short term promissory notes in the name of the Manitoba Hydro-Electric Board up to an aggregate sum of $1.5 billion of principal outstanding at any one time. Short term borrowings are considered to have terms to maturity at issuance of less than one year.

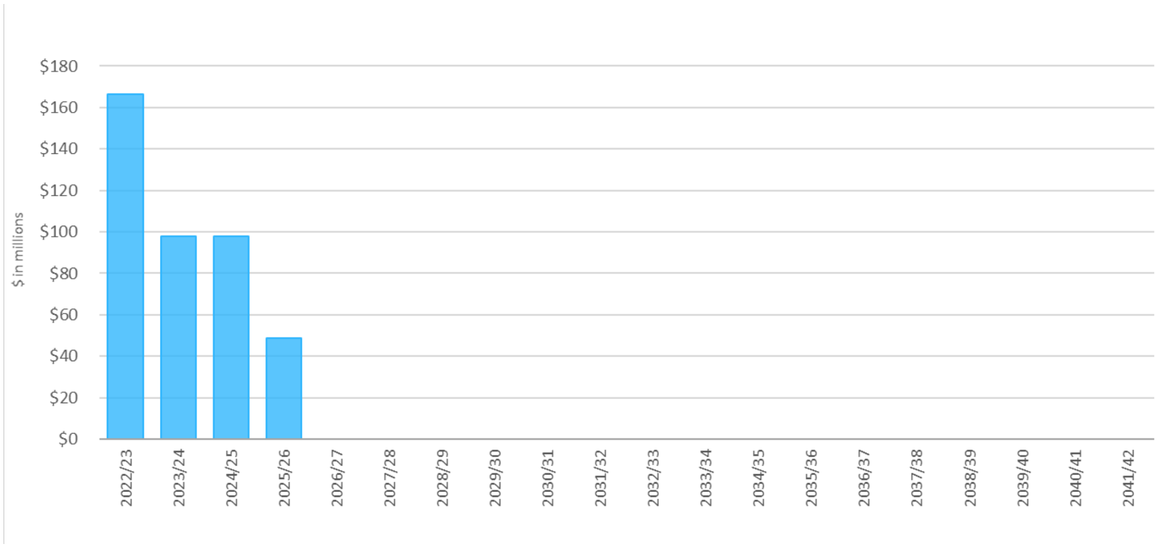
The Manitoba Hydro Act provides for a Province of Manitoba government guarantee of principal and interest for Manitoba Hydro long term and short term debt, however, currently, only $500 million of the short term debt facility is guaranteed. Mitigation bonds issued by the Manitoba Hydro-Electric Board also do not bear the guarantee.

The Manitoba Hydro Act also requires Manitoba Hydro to set aside funds of the corporation each year for investment in a sinking fund reserve to ultimately retire long term debt.

The Appropriations Act is legislation which grants Manitoba Hydro borrowing authority to meet the Corporation's projected new debt financing requirements. This was formerly provided by the annual Loans Act.

The Financial Administration Act has recently been amended to provide a comprehensive debt limit for Manitoba Hydro which takes into consideration the current accumulated long term debt, the anticipated long term borrowing to the end of fiscal year 2023/24 and as well as an additional amount for contingency and working capital which is equivalent to the currently authorized $1.5 billion in temporary borrowing authority. This new debt limit for all borrowing authority includes refunding authority to refinance maturing long term debt. The debt limit will be adjusted in subsequent years, as required, to accommodate Manitoba Hydro's future fiscal plans.

Figure 4.23 Regulatory Credit Balance



4.2.13 Net Debt Balance

Figure 4.24 shows the net debt balance over the planning horizon, while Figure 4.25 shows the annual change to the net debt balance. Cash flow deficits projected between 2025/26 and 2029/30 result in approximately $320 million of new incremental borrowings over this timeframe and increases the net debt balance. Surplus cash flow projected to begin in 2030/31 and continue through 2041/42 result in a $2.3 billion reduction to the net debt balance by the end of the planning horizon.

Figure 4.24 Net Debt Balance

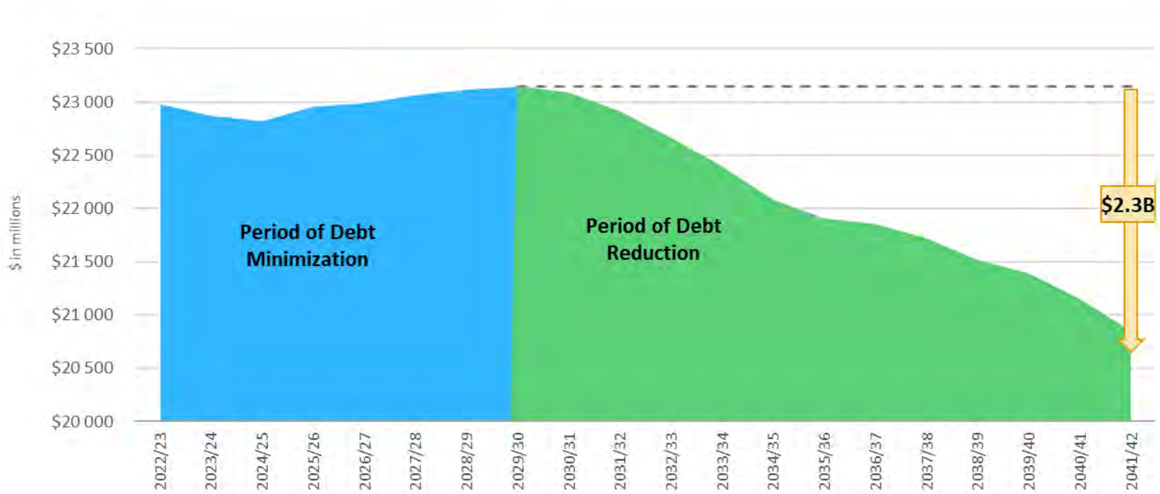
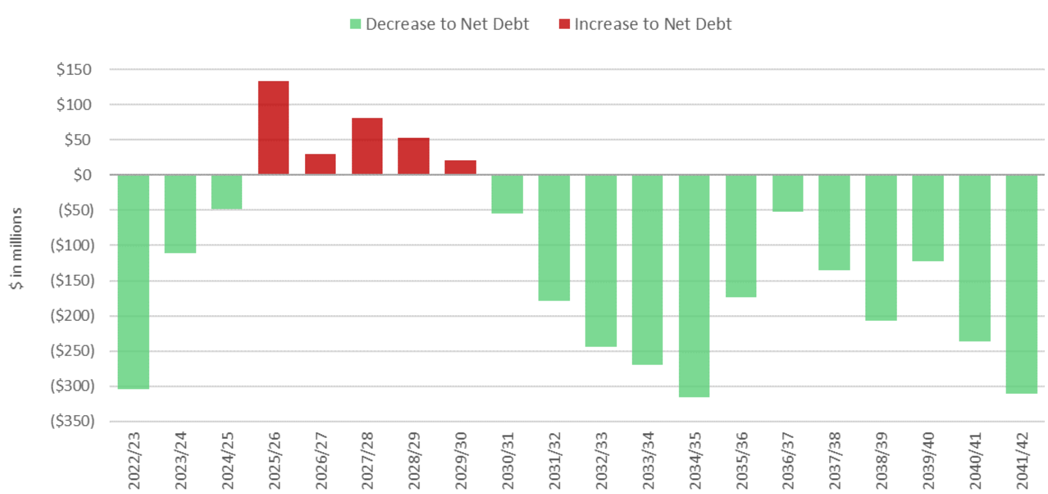


Figure 4.25 Annual Change to Net Debt Balance



4.2.14 Net Finance Expense

The seventh and final unit of the Keeyask Generating Station was placed into service in March 2022, which marked substantial completion of the major construction efforts undertaken by Manitoba Hydro over the last several years. While Manitoba Hydro benefited from record low interest rates during the construction of the major capital projects, interest rates in Canada are now projected to increase as tighter monetary policies are aimed at controlling inflation which remains high.

Over the next 10-years, Manitoba Hydro has approximately $1 billion in debt (approximately 5% of the overall debt portfolio) maturing each year of which the majority will need to be refinanced. With rising interest rates, this debt is projected to be re-financed at higher rates than at which it was originally obtained, and this will put upward pressure on Manitoba Hydro's finance expense.

Figure 4.26 below shows the annual debt maturities over the next 10 years and compares the weighted average interest rate that the debt was originally obtained at, compared to Manitoba Hydro's consensus interest rate forecast which is used as the refinancing rate in the Financial Forecast Scenario.

Figure 4.25 Net Debt Balance

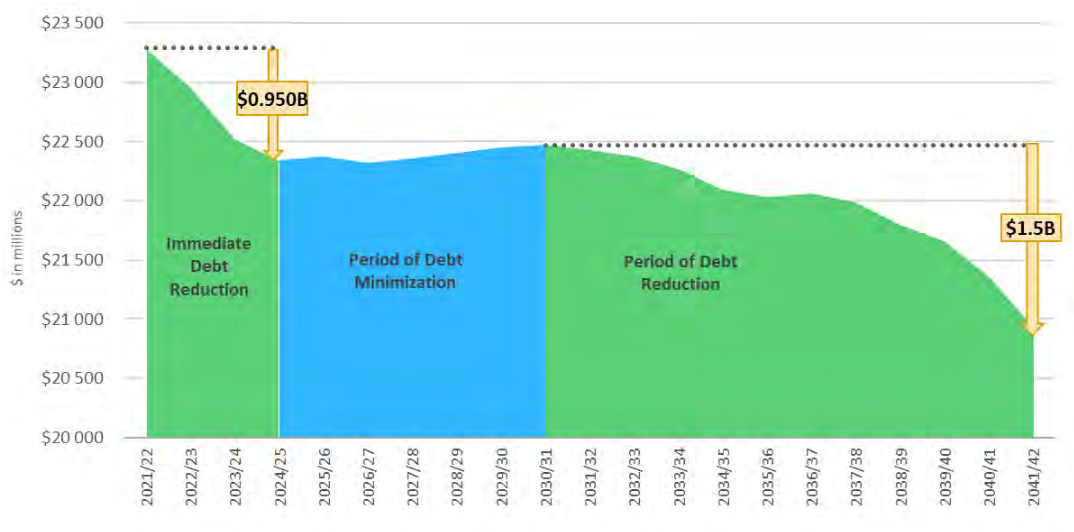
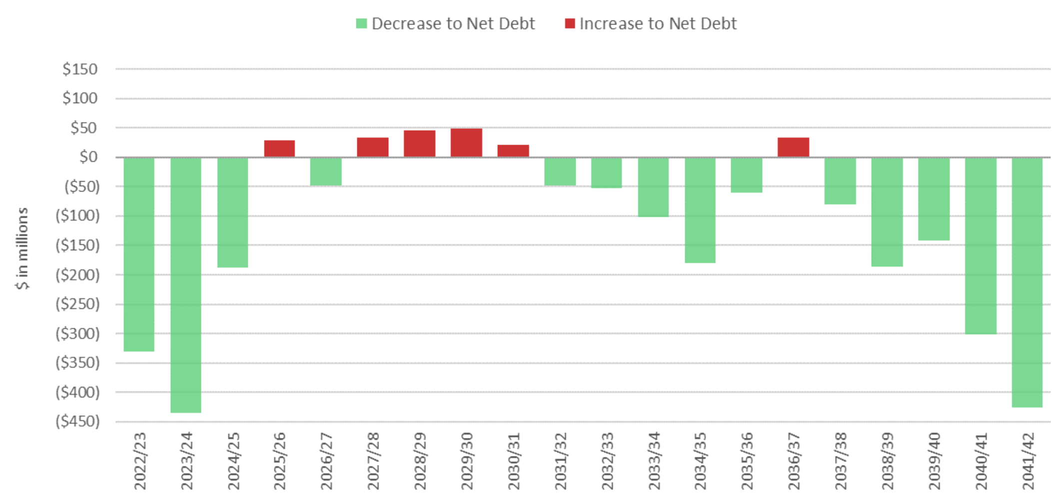


Figure 4.26 Annual Change to Net Debt Balance



4.2.14 Net Finance Expense

The seventh and final unit of the Keeyask Generating Station was placed into service in March 2022, which marked substantial completion of the major construction efforts undertaken by Manitoba Hydro over the last several years. While Manitoba Hydro benefited from record low interest rates during the construction of the major capital projects, interest rates in Canada are now projected to increase as tighter monetary policies are aimed at controlling inflation which remains high.

PUB MFR 70 (Amended)

Prior references
PUB MFR 56, 2017/18 & 2018/19 GRA

Finance Expense-Debt Levels

A continuity schedule of the short and long-term debt for the fiscal years 2004 to 2032 detailing the retirement of existing debt and the issue of new debt, including the debt ratio. Indicate the proportion of short-term debt to total debt for each of the years.

Figure 1 below of short and long term debt conforms to the Corporation's financial statement presentation, with measurement in Canadian dollars (CAD) and which in accordance with accounting standards specify the most outward obligation dates on any debt series (the latter of physical debt or forward interest rate swap maturity dates).

Long term debt refers to borrowings which have a term to maturity at issuance equal to or greater than one year and is made up of fixed rate debt with non-variable interest rates and floating rate debt which have a periodic interest rate resetting mechanism prior to maturity.

Short term debt refers to borrowings with non-variable interest rates which have a term to maturity at issuance of less than one year.

Figure 1: Debt Levels

Finance Expense - Debt Levels MFR70

MANITOBA HYDRO
Continunity Schedule
Consolidated Short and Long Term Debt

Amended Financial Forecast Scenario
(in $ millions Canadian Dollars)

Long Term Debt	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019
Opening Balance	7,268	7,390	7,204	7,169	7,227	7,571	8,187	8,538	8,647	9,382	9,985	10,868	12,680	14,527	16,438	19,200
Long Term Debt Proceeds	1,013	300	180	173	981	423	1,425	915	698	807	1,320	2,210	2,165	2,186	3,400	3,527
Long Term Debt Matured	(473)	(241)	(111)	(80)	(311)	(366)	(452)	(723)	(25)	(242)	(613)	(654)	(362)	(320)	(582)	(1,233)
Carrying Value Adjustments*	(418)	(245)	(104)	(35)	(327)	559	(622)	(83)	62	38	176	256	44	45	(56)	58
Closing Balance	**7,390**	**7,204**	**7,169**	**7,227**	**7,571**	**8,187**	**8,538**	**8,647**	**9,382**	**9,985**	**10,868**	**12,680**	**14,527**	**16,438**	**19,200**	**21,552**

* Carrying Value Adjustments include changes in in the value of US dollar denominated debt upon conversion to CAD, as well as changes to the portfolio carrying value for transaction costs, premiums/ discounts, and dual currency bonds.

Short Term Debt	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019
Opening Balance	128	93	59	-	148	-	100	-	-	-	-	-	-	-	-	-
Increase (Decrease)	(35)	(34)	(59)	148	(148)	100	(100)	-	-	-	-	-	-	-	-	-
Closing Balance	**93**	**59**	**-**	**148**	**-**	**100**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Total Debt	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019
Long Term Debt	7,390	7,204	7,169	7,227	7,571	8,187	8,538	8,647	9,382	9,985	10,868	12,680	14,527	16,438	19,200	21,552
Short Term Debt	93	59		148	-	100	-	-	-	-	-	-	-	-	-	-
Total Debt	**7,483**	**7,263**	**7,169**	**7,375**	**7,571**	**8,287**	**8,538**	**8,647**	**9,382**	**9,985**	**10,868**	**12,680**	**14,527**	**16,438**	**19,200**	**21,552**
Proportion of Short Term Debt to Total Debt	1%	1%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Consolidated Debt Ratio	87%	85%	81%	80%	73%	77%	73%	73%	74%	75%	76%	83%	83%	84%	85%	86%

Finance Expense - Debt Levels MFR70

MANITOBA HYDRO
Continunity Schedule
Consolidated Short and Long Term Debt

Amended Financial Forecast Scenario
(in $ millions Canadian Dollars)

Long Term Debt	**Actual 2020**	**Actual 2021**	**Actual 2022**	**Forecast 2023**	**Forecast 2024**	**Forecast 2025**	**Forecast 2026**	**Forecast 2027**	**Forecast 2028**	**Forecast 2029**	**Forecast 2030**	**Forecast 2031**	**Forecast 2032**
Opening Balance	21,552	23,287	24,185	24,758	24,424	23,404	23,315	23,390	23,202	23,318	23,449	23,338	23,443
Long Term Debt Proceeds	2,190	2,600	1,505	807	400	800	1,000	1,000	1,400	1,600	600	1,200	800
Long Term Debt Matured	(542)	(1,532)	(954)	(1,143)	(1,449)	(875)	(936)	(1,183)	(1,284)	(1,468)	(710)	(1,096)	(663)
Carrying Value Adjustments*	87	(171)	22	2	29	(14)	11	(4)	(0)	(2)	(1)	1	2
Closing Balance	**23,287**	**24,185**	**24,758**	**24,424**	**23,404**	**23,315**	**23,390**	**23,202**	**23,318**	**23,449**	**23,338**	**23,443**	**23,582**

* Carrying Value Adjustments include changes in in the value of US dollar denominated debt upon conversion to CAD, as well as changes to the portfolio carrying value for transaction costs, premiums/ discounts, and dual currency bonds.

Short Term Debt	**Actual 2020**	**Actual 2021**	**Actual 2022**	**Forecast 2023**	**Forecast 2024**	**Forecast 2025**	**Forecast 2026**	**Forecast 2027**	**Forecast 2028**	**Forecast 2029**	**Forecast 2030**	**Forecast 2031**	**Forecast 2032**
Opening Balance	-	-	-	50	50	50	50	50	50	50	50	50	50
Increase (Decrease)	-	-	50	-	-	-	-	-	-	-	-	-	-
Closing Balance	**-**	**-**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**

Total Debt	**Actual 2020**	**Actual 2021**	**Actual 2022**	**Forecast 2023**	**Forecast 2024**	**Forecast 2025**	**Forecast 2026**	**Forecast 2027**	**Forecast 2028**	**Forecast 2029**	**Forecast 2030**	**Forecast 2031**	**Forecast 2032**
Long Term Debt	23,287	24,185	24,758	24,424	23,404	23,315	23,390	23,202	23,318	23,449	23,338	23,443	23,582
Short Term Debt	-	-	50	50	50	50	50	50	50	50	50	50	50
Total Debt	**23,287**	**24,185**	**24,808**	**24,474**	**23,454**	**23,365**	**23,440**	**23,252**	**23,368**	**23,499**	**23,388**	**23,493**	**23,632**
Proportion of Short Term Debt to Total Debt	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Consolidated Debt Ratio	86%	86%	86%	85%	83%	82%	82%	81%	81%	80%	80%	79%	79%

REFERENCE:

PUB/MH I-25a-d

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please update the response as of February 28, 2023, and comment on any changes in the interest rates and forecast.
b) Please file an updated part (b), including the Provincial Guarantee fee.

RESPONSE:

a) Please see the following table for the calculated blended forecast debt refinancing rates based on the Winter 2022 consensus forecast rates.

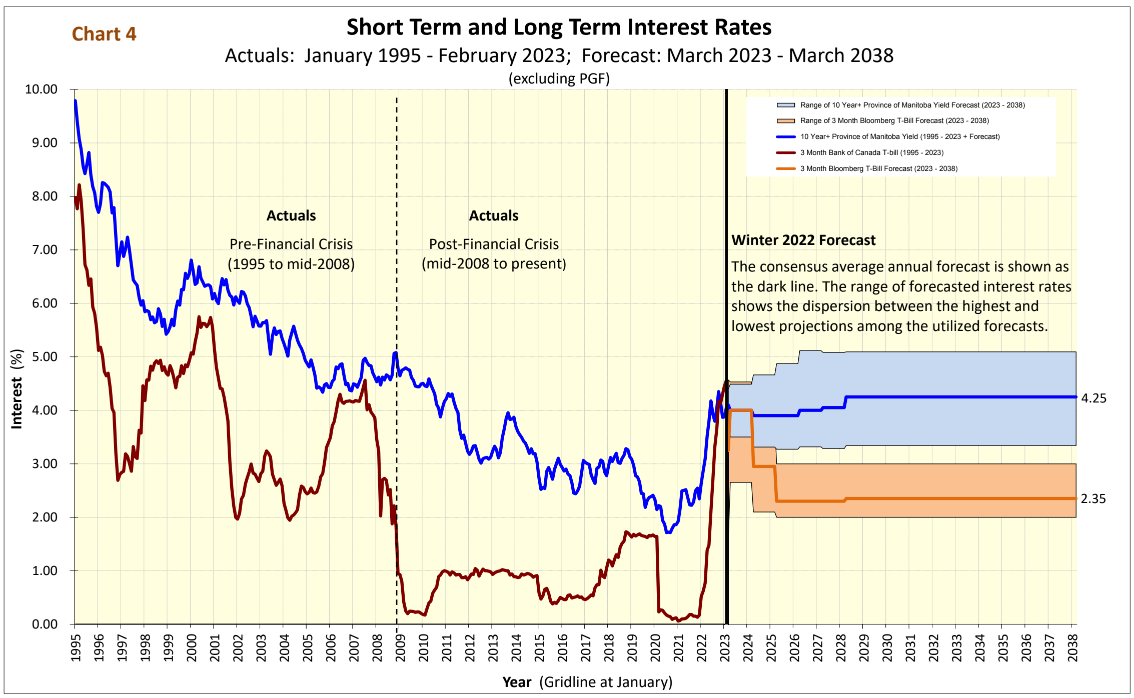
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Fixed Rate	4.10%	4.00%	3.90%	3.90%	4.00%	4.05%	4.25%	4.25%	4.25%	4.25%
Floating Rate	5.35%	5.00%	3.85%	3.20%	3.20%	3.20%	3.25%	3.25%	3.25%	3.25%
Blended (85% fixed, 15% flt)	**4.29%**	**4.15%**	**3.89%**	**3.80%**	**3.88%**	**3.92%**	**4.10%**	**4.10%**	**4.10%**	**4.10%**

Please see the calculated Fixed and Floating interest rates below with forecast data taken from Winter 2022 Forecast Rates.

Year	Consensus Benchmark Long-Term 10Yr+ Rate %	Manitoba Spread	MH Cdn Fixed Long Term Interest Rate %
2022/23	3.15	0.96	4.10
2023/24	3.02	0.95	4.00
2024/25	2.94	0.94	3.90
2025/26	2.98	0.94	3.90
2026/27	3.03	0.94	4.00
2027/28	3.12	0.94	4.05
2028/29 & on	3.31	0.94	4.25

Year	Consensus Benchmark 90 Day Cdn T-Bill Rate %	Spread from Cdn T-Bill Rate to Cdn BA Rate	Consensus Benchmark 90 Day BA Rate %	Manitoba Margin Level	MH Cdn Floating Interest Rate %
2022/23	4.26	0.61	4.85	0.50	5.35
2023/24	3.98	0.50	4.50	0.50	5.00
2024/25	2.96	0.42	3.35	0.50	3.85
2025/26	2.29	0.42	2.70	0.50	3.20
2026/27	2.28	0.42	2.70	0.50	3.20
2027/28	2.29	0.42	2.70	0.50	3.20
2028/29 & on	2.33	0.42	2.75	0.50	3.25

Please see Chart 4 updated with actuals to February 28, 2023 and Winter 2022 forecast interest rates below.



Please see the following charts 5 and 6 updated to February 28, 2023.

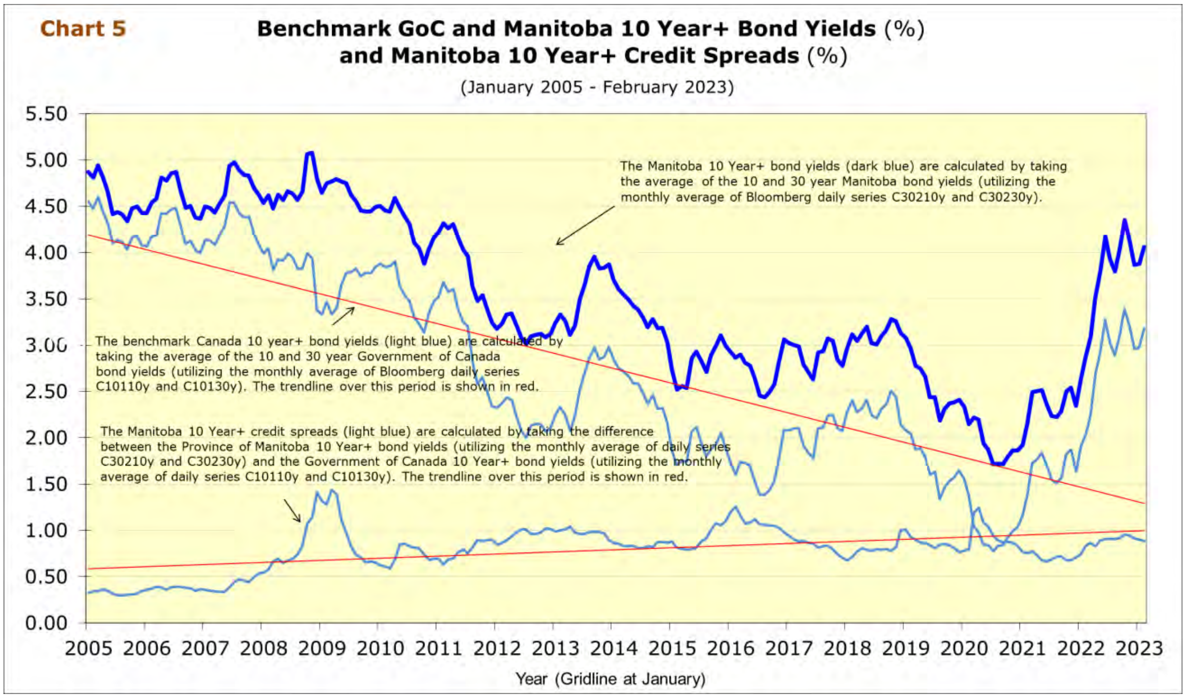


Chart 5
Benchmark GoC and Manitoba 10 Year+ Bond Yields (%)
and Manitoba 10 Year+ Credit Spreads (%)
(January 2005 - February 2023)
The Manitoba 10 Year+ bond yields (dark blue) are calculated by taking the average of the 10 and 30 year Manitoba bond yields (utilizing the monthly average of Bloomberg daily series C30210y and C30230y).
The benchmark Canada 10 year+ bond yields (light blue) are calculated by taking the average of the 10 and 30 year Government of Canada bond yields (utilizing the monthly average of Bloomberg daily series C10110y and C10130y). The trendline over this period is shown in red.
The Manitoba 10 Year+ credit spreads (light blue) are calculated by taking the difference between the Province of Manitoba 10 Year+ bond yields (utilizing the monthly average of daily series C30210y and C30230y) and the Government of Canada 10 Year+ bond yields (utilizing the monthly average of daily series C10110y and C10130y). The trendline over this period is shown in red.
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Year (Gridline at January)

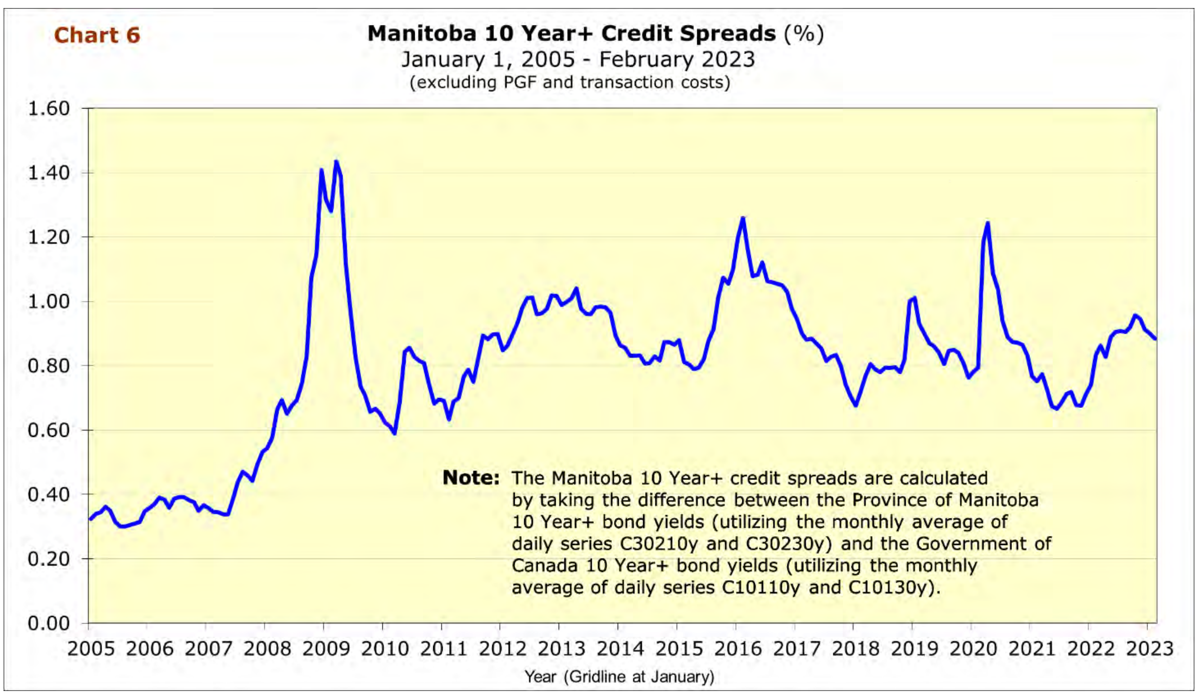


Chart 6
Manitoba 10 Year+ Credit Spreads (%)
January 1, 2005 - February 2023
(excluding PGF and transaction costs)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Note: The Manitoba 10 Year+ credit spreads are calculated by taking the difference between the Province of Manitoba 10 Year+ bond yields (utilizing the monthly average of daily series C30210y and C30230y) and the Government of Canada 10 Year+ bond yields (utilizing the monthly average of daily series C10110y and C10130y).
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Year (Gridline at January)

Please refer to the following table for the underlying data for Charts 5 and 6.

	Manitoba 10+ Bond Yields	Canada 10+ Bond Yield	Manitoba 10+ Credit Spread
January 2005	4.87	4.55	0.32
February 2005	4.81	4.47	0.34
March 2005	4.94	4.60	0.34
April 2005	4.81	4.45	0.36
May 2005	4.66	4.32	0.35
June 2005	4.41	4.10	0.31
July 2005	4.44	4.14	0.30
August 2005	4.41	4.11	0.30
September 2005	4.34	4.03	0.31
October 2005	4.48	4.17	0.31
November 2005	4.50	4.18	0.32
December 2005	4.43	4.08	0.35
January 2006	4.43	4.07	0.36
February 2006	4.54	4.17	0.37
March 2006	4.58	4.19	0.39
April 2006	4.81	4.43	0.38
May 2006	4.78	4.42	0.36
June 2006	4.85	4.47	0.39
July 2006	4.87	4.48	0.39
August 2006	4.67	4.28	0.39
September 2006	4.48	4.10	0.38
October 2006	4.50	4.13	0.38
November 2006	4.38	4.03	0.35
December 2006	4.36	4.00	0.37
January 2007	4.50	4.14	0.36
February 2007	4.48	4.14	0.35
March 2007	4.43	4.09	0.34
April 2007	4.53	4.19	0.34
May 2007	4.62	4.28	0.34
June 2007	4.93	4.55	0.39
July 2007	4.97	4.54	0.44
August 2007	4.89	4.42	0.47
September 2007	4.84	4.38	0.46
October 2007	4.83	4.39	0.44
November 2007	4.70	4.20	0.50
December 2007	4.62	4.09	0.53
January 2008	4.53	3.99	0.54
February 2008	4.62	4.04	0.58
March 2008	4.47	3.81	0.66
April 2008	4.62	3.93	0.69
May 2008	4.57	3.92	0.65
June 2008	4.66	3.99	0.68
July 2008	4.64	3.94	0.69
August 2008	4.57	3.83	0.74
September 2008	4.66	3.83	0.83
October 2008	5.06	3.99	1.07
November 2008	5.08	3.94	1.14
December 2008	4.79	3.38	1.41

	Manitoba 10+ Bond Yields	Canada 10+ Bond Yield	Manitoba 10+ Credit Spread
January 2009	4.65	3.33	1.31
February 2009	4.75	3.47	1.28
March 2009	4.77	3.33	1.44
April 2009	4.80	3.41	1.39
May 2009	4.77	3.65	1.11
June 2009	4.75	3.78	0.97
July 2009	4.62	3.79	0.83
August 2009	4.56	3.82	0.74
September 2009	4.45	3.75	0.71
October 2009	4.44	3.78	0.66
November 2009	4.44	3.77	0.67
December 2009	4.49	3.84	0.65
January 2010	4.50	3.88	0.62
February 2010	4.45	3.84	0.61
March 2010	4.44	3.85	0.59
April 2010	4.59	3.90	0.69
May 2010	4.48	3.64	0.84
June 2010	4.39	3.54	0.86
July 2010	4.31	3.48	0.83
August 2010	4.11	3.29	0.82
September 2010	4.04	3.23	0.81
October 2010	3.88	3.14	0.74
November 2010	4.04	3.36	0.68
December 2010	4.16	3.47	0.69
January 2011	4.22	3.52	0.69
February 2011	4.31	3.68	0.63
March 2011	4.26	3.57	0.69
April 2011	4.31	3.61	0.70
May 2011	4.16	3.39	0.77
June 2011	4.04	3.25	0.79
July 2011	3.96	3.21	0.75
August 2011	3.63	2.82	0.82
September 2011	3.48	2.58	0.89
October 2011	3.54	2.65	0.88
November 2011	3.39	2.49	0.90
December 2011	3.24	2.34	0.90
January 2012	3.18	2.33	0.85
February 2012	3.23	2.37	0.86
March 2012	3.33	2.43	0.90
April 2012	3.34	2.41	0.93
May 2012	3.21	2.23	0.98
June 2012	3.09	2.08	1.01
July 2012	3.01	2.00	1.01
August 2012	3.10	2.14	0.96
September 2012	3.11	2.15	0.96
October 2012	3.12	2.14	0.98
November 2012	3.09	2.07	1.02
December 2012	3.12	2.11	1.02

	Manitoba 10+ Bond Yields	Canada 10+ Bond Yield	Manitoba 10+ Credit Spread
January 2013	3.24	2.25	0.99
February 2013	3.33	2.33	1.00
March 2013	3.26	2.25	1.01
April 2013	3.11	2.07	1.04
May 2013	3.21	2.23	0.98
June 2013	3.49	2.52	0.96
July 2013	3.65	2.69	0.96
August 2013	3.85	2.87	0.98
September 2013	3.96	2.97	0.98
October 2013	3.83	2.85	0.98
November 2013	3.84	2.87	0.96
December 2013	3.87	2.98	0.89
January 2014	3.71	2.84	0.86
February 2014	3.61	2.75	0.86
March 2014	3.54	2.71	0.83
April 2014	3.49	2.66	0.83
May 2014	3.42	2.59	0.83
June 2014	3.39	2.58	0.81
July 2014	3.30	2.49	0.81
August 2014	3.19	2.36	0.83
September 2014	3.28	2.46	0.82
October 2014	3.19	2.31	0.87
November 2014	3.19	2.32	0.87
December 2014	3.03	2.16	0.87
January 2015	2.73	1.85	0.88
February 2015	2.52	1.71	0.81
March 2015	2.56	1.75	0.80
April 2015	2.54	1.74	0.79
May 2015	2.86	2.07	0.79
June 2015	2.93	2.11	0.82
July 2015	2.83	1.95	0.88
August 2015	2.71	1.80	0.91
September 2015	2.89	1.88	1.01
October 2015	3.00	1.92	1.07
November 2015	3.10	2.05	1.05
December 2015	2.99	1.89	1.10
January 2016	2.93	1.73	1.20
February 2016	2.86	1.60	1.26
March 2016	2.90	1.74	1.16
April 2016	2.81	1.73	1.08
May 2016	2.78	1.70	1.08
June 2016	2.64	1.52	1.12
July 2016	2.45	1.39	1.06
August 2016	2.44	1.38	1.06
September 2016	2.49	1.44	1.05
October 2016	2.58	1.53	1.05
November 2016	2.83	1.80	1.03
December 2016	3.06	2.09	0.98

	Manitoba 10+ Bond Yields	Canada 10+ Bond Yield	Manitoba 10+ Credit Spread
January 2017	3.03	2.08	0.95
February 2017	3.00	2.10	0.90
March 2017	2.99	2.11	0.88
April 2017	2.79	1.91	0.89
May 2017	2.71	1.84	0.87
June 2017	2.63	1.78	0.85
July 2017	2.92	2.10	0.81
August 2017	2.94	2.11	0.83
September 2017	3.07	2.24	0.83
October 2017	3.04	2.25	0.80
November 2017	2.84	2.10	0.74
December 2017	2.78	2.07	0.70
January 2018	2.96	2.28	0.68
February 2018	3.12	2.40	0.72
March 2018	3.04	2.28	0.77
April 2018	3.12	2.32	0.81
May 2018	3.20	2.41	0.79
June 2018	3.02	2.24	0.78
July 2018	3.01	2.21	0.80
August 2018	3.10	2.31	0.79
September 2018	3.16	2.36	0.80
October 2018	3.28	2.50	0.78
November 2018	3.26	2.44	0.82
December 2018	3.13	2.14	1.00
January 2019	3.08	2.08	1.01
February 2019	2.97	2.04	0.93
March 2019	2.78	1.87	0.90
April 2019	2.75	1.89	0.87
May 2019	2.66	1.80	0.86
June 2019	2.44	1.60	0.84
July 2019	2.44	1.63	0.81
August 2019	2.18	1.34	0.85
September 2019	2.31	1.47	0.85
October 2019	2.37	1.53	0.84
November 2019	2.38	1.58	0.81
December 2019	2.41	1.65	0.76
January 2020	2.33	1.56	0.78
February 2020	2.14	1.36	0.79
March 2020	2.22	1.05	1.18
April 2020	2.20	0.97	1.24
May 2020	1.94	0.85	1.09
June 2020	1.87	0.84	1.04
July 2020	1.71	0.77	0.94
August 2020	1.72	0.83	0.89
September 2020	1.71	0.84	0.87
October 2020	1.80	0.92	0.87
November 2020	1.86	1.00	0.87
December 2020	1.86	1.03	0.83

	Manitoba 10+ Bond Yields	Canada 10+ Bond Yield	Manitoba 10+ Credit Spread
January 2021	1.92	1.15	0.77
February 2021	2.15	1.39	0.75
March 2021	2.49	1.72	0.77
April 2021	2.50	1.76	0.73
May 2021	2.52	1.84	0.67
June 2021	2.36	1.70	0.67
July 2021	2.23	1.54	0.69
August 2021	2.22	1.51	0.71
September 2021	2.29	1.57	0.72
October 2021	2.50	1.82	0.68
November 2021	2.54	1.87	0.68
December 2021	2.34	1.63	0.71
January 2022	2.64	1.91	0.74
February 2022	2.87	2.04	0.84
March 2022	3.09	2.24	0.86
April 2022	3.51	2.69	0.83
May 2022	3.80	2.91	0.89
June 2022	4.18	3.27	0.91
July 2022	3.93	3.02	0.91
August 2022	3.80	2.89	0.91
September 2022	4.03	3.12	0.92
October 2022	4.35	3.39	0.96
November 2022	4.15	3.20	0.95
December 2022	3.87	2.95	0.91
January 2023	3.88	2.98	0.90
February 2023	4.06	3.18	0.88

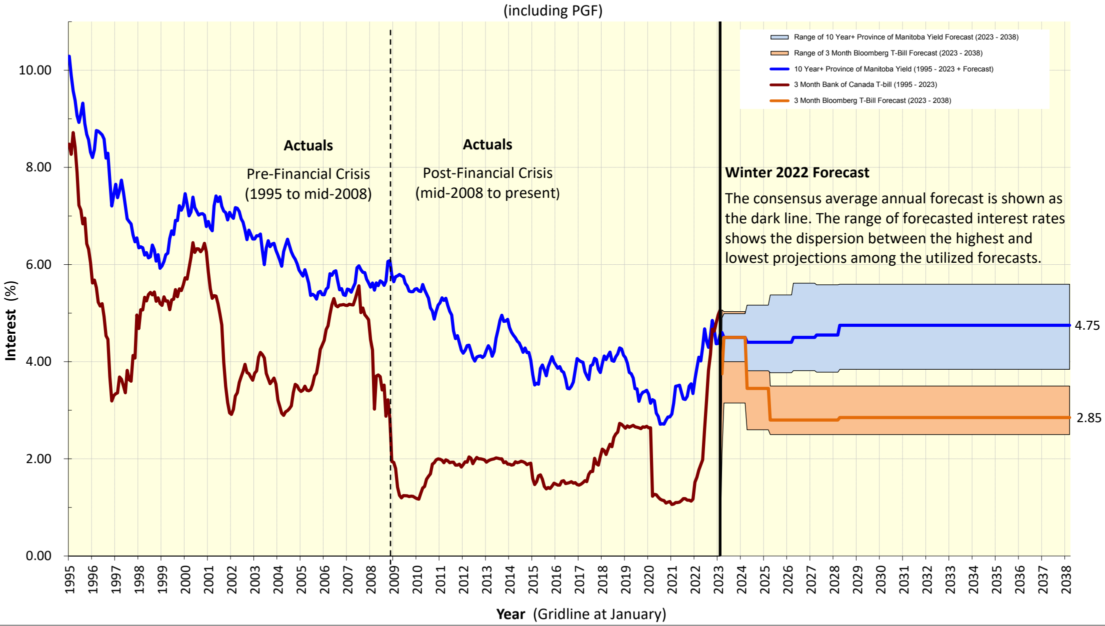
b) Please see Chart 4 including PGF updated with actuals to February 28, 2023 and Winter 2022 forecast interest rates below.

Chart 4

Short Term and Long Term Interest Rates

Actuals: January 1995 - February 2023; Forecast: March 2023 - March 2038

(including PGF)



REFERENCE:

Coalition/MH I-10

PREAMBLE TO IR (IF ANY):

The response to Coalition/MH I-10 describes the impacts of the reductions in payments to governments on the amended financial forecast and rate path.

QUESTION:

Please confirm (or explain as necessary) that a reasonable summary of the response to Coalition/MH I-10 is that the reduction in general consumers revenues from the change in the rate path from 3.5% to 2.0% largely offsets any finance expense improvement related to the reduction in payments to government, such that the net impact on the amended financial forecast is for the most part the reduction in the payments to government themselves.

RESPONSE:

As discussed in COALITION/MH I-10, when compared to the November 15, 2022 Financial Forecast Scenario, the $3.7 billion fee reduction in the Amended Financial Forecast Scenario is largely matched by a $3.8 billion reduction to additional rate revenue. The offsetting nature of the reduced additional rate revenue does not generate any additional finance expense savings over and above that from the reduced debt guarantee fee.

To assist in demonstrating the offsetting nature of the reduced rate revenue in the Amended Financial Forecast Scenario, the figures below isolate the financing expense savings of (i) a change in the rate path from 2.0% to 3.5% and (ii) the reduction to the debt guarantee and water rental fees.

By comparing the *2% Rate Path with Government Fees Unchanged* sensitivity from Appendix 4.4 (Amended) with the November 15, 2022 filing that contained a 3.5% rate path, the $4 billion in additional rate revenue results in savings associated with lower interest expense of $2 billion as a result of both debt retirement and debt avoidance. Over the 20-year forecast period, the additional rate revenue and the associated finance expense savings total approximately $6 billion as shown in Figure 1 below.

Figure 1 Finance Expense Savings of a Change in the Rate Path from 2.0% to 3.5%

(In Billions)	Additional Rate Revenue	Debt Guarantee Fee Reduction Savings	Water Rental Fee Reduction Savings	Finance Expense Savings	Total Impact
(i) A Change in the Rate Path from 2.0% to 3.5%	$4	$-	$-	$2	$6

Alternatively, by comparing the *2% Rate Path with Government Fees Unchanged* sensitivity with the Amended Financial Forecast Scenario, the $3 billion in savings related to lower debt guarantee fees and the $1 billion savings in reduced water rental fees also results in savings associated with lower interest expense of $2 billion as a result of both debt retirement and debt avoidance. Over the 20-year forecast period, the $4 billion in savings from reduced government fees and the associated finance expense savings also total approximately $6 billion as shown in Figure 2 below.

Figure 2 Finance Expense Savings due to Reduction to the debt guarantee and water rental fees

(In Billions)	Additional Rate Revenue	Debt Guarantee Fee Reduction Savings	Water Rental Fee Reduction Savings	Finance Expense Savings	Total Impact
(ii) Reduction to the debt guarantee and water rental fees	$-	$3	$1	$2	$6

Holding all other planning assumptions constant, either a $4 billion reduction to government fees or a $4 billion increase in additional revenue could have resulted in an additional $2 billion of savings in the form of lower finance expense had the government fee reduction and additional revenue reduction not been offset in the Amended Financial Forecast Scenario to comply with the Rate Cap set forth in *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act*.

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REFERENCE:

Figure 6.1, Figure 6.14 Appendix (2017/18 & 2018/19 GRA)

PREAMBLE TO IR (IF ANY):14

QUESTION:

a) Please provide an updated table including 2014/15 and 2015/16.

b) Please provide an update to Figure 6.14 on a cost element basis, from the 2017/18 & 2018/19 GRA including the actual results from 2014/15 to 2018/19, the average annual increase for the five year period, the actual results of 2019/20, 2021/22, the average annual change for the two post-VDP years, and the forecast for 2022/23, 2023/24 and 2024/25 and the average annual for the three forecast years.

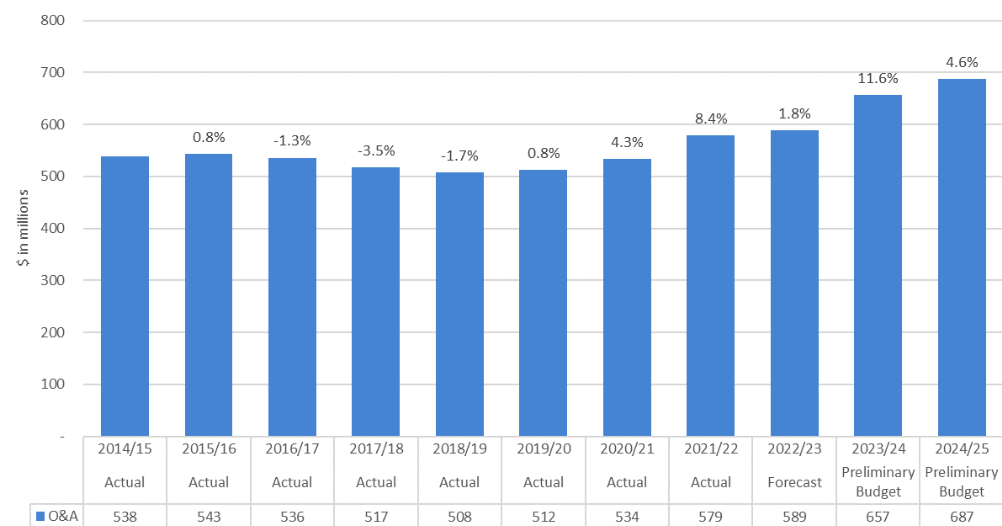
c) Please expand (b) to include the detail of external services and materials and explain the reason for the major increase in 2021/22, 2022/23 and 2023/24.

d) To the extent the 2023/24 or 2024/25 O&A expense forecasts have placeholder budgets included, please identify where in the cost element forecast the amounts included. Please provide the above tables in excel if available.

RESPONSE:

a) Please see Figure 1 below for an update to Figure 6.1 from this Application, which includes the addition of the 2014/15 and 2015/16 fiscal years.

Figure 1. O&A Expenses, 2014/15 – 2024/25



b) Please see Figure 2 below for an update to Figure 6.14 on a cost element basis from the 2017/18 & 2018/19 GRA, including the actual results from 2014/15 to 2018/19, the average annual increase for the five year period, the actual results from 2019/20 to 2021/22, the average annual change for the period, and the forecast for 2022/23, 2023/24 and 2024/25 and the average annual change for the three Forecast/Preliminary Budget fiscal years.

Figure 2. O&A by Cost Element

MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
($000s)

	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	Average Annual % Inc/(Dec)	2019/20 Actual	2020/21 Actual	2021/22 Actual	Average Annual % Inc/(Dec)	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget	Average Annual % Inc/(Dec)
Employee Related Expenditures														
Wages & salaries	$ 493 346	$ 506 811	$ 517 311	$ 493 691	$ 456 796	-1.8%	$ 458 039	$ 440 808	$ 448 464	-1.0%	$ 458 803	$ 482 838	$ 505 009	4.9%
Overtime	69 541	67 982	72 256	75 095	68 395	-0.2%	75 516	58 423	63 139	-7.3%	62 639	64 480	66 256	2.8%
Employee benefits	166 854	159 363	165 924	156 884	140 888	-4.0%	123 853	176 121	154 625	15.0%	152 528	158 807	165 998	4.3%
Other	73 067	70 832	71 943	68 233	69 550	-1.2%	70 855	58 498	62 225	-5.5%	72 699	82 588	85 366	8.5%
Total Employee Related Expenditures	802,809	804,988	827,435	793,904	735,630	-2.1%	728,263	733,850	728,453	0.0%	746,668	788,713	822,630	5.0%
Less: Capitalized Labor & Overhead	(313 931)	(322 144)	(345 763)	(336 400)	(289 495)	-1.7%	(286 851)	(267 522)	(239 491)	-8.6%	(247 909)	(256 238)	(266 683)	3.7%
Operational Employee Related Expenditures	488 877	482 844	481 672	457 504	446 134	-2.2%	441 411	466 328	488 962	5.2%	498 759	532 475	555 947	5.6%
External services and materials	126 850	127 711	126 024	122 843	130 338	0.7%	135 132	132 421	158 598	8.9%	171 968	211 162	221 014	13.7%
Donations, sponsorships & grants	2 804	2 592	2 134	2 434	2 000	-7.2%	2 069	1 062	1 292	-13.5%	1 756	1 712	1 712	-1.2%
Uncollectible accounts	4 890	5 748	4 266	12 375	3 496	27.5%	6 291	7 473	14 758	58.1%	9 170	9 170	9 170	0.0%
Other	452	6 230	2 821	1 200	2 658	321.7%	(375)	662	3 602	83.8%	(713)	(1 192)	(508)	4.9%
Cost recoveries	(15 115)	(15 789)	(15 706)	(16 387)	(15 244)	0.3%	(14 605)	(12 218)	(18 044)	15.7%	(21 939)	(19 026)	(19 335)	-5.8%
O&A charged to gas operations	(70 355)	(66 607)	(65 384)	(63 113)	(61 420)	-3.3%	(57 961)	(61 815)	(70 441)	10.3%	(70 000)	(77 100)	(80 600)	7.3%
Operating & Administrative Expenses	**$ 538 404**	**$ 542 729**	**$ 535 826**	**$ 516 855**	**$ 507 961**	**-1.4%**	**$ 511 961**	**$ 533 913**	**$ 578 728**	**6.3%**	**$ 589 000**	**$ 657 200**	**$ 687 400**	**8.1%**

c) Please see Figure 3 for the details of External Services and Materials from 2014/15 to 2024/25.

For variance explanations from 2020/21 to 2021/22, please refer to PUB/MH I-67.

Please see Figure 4 below for explanations for variances over $500,000 and 5% from 2021/22 to 2022/23.

For variance explanations from 2022/23 to 2023/24, please refer to PUB/MH I-62c.

Figure 3. External Services and Materials by Cost Element

MANITOBA HYDRO
EXTERNAL SERVICES AND MATERIALS BY COST ELEMENT
($000s)

	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	Average Annual % Inc/(Dec)	2019/20 Actual	2020/21 Actual	2021/22 Actual	Average Annual % Inc/(Dec)	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget	Average Annual % Inc/(Dec)	2021/22 to 2022/23 $ Inc/(Dec)	2021/22 to 2022/23 % Inc/(Dec)	Ref
Materials & Tools	24 723	26 264	25 389	24 451	27 040	2.4%	29 133	30 067	34 740	9.4%	31 665	33 696	34 801	4.8%	(3 075)	-9%	1
Consulting & Professional Fees	16 154	15 311	15 840	10 746	12 986	-3.3%	12 639	9 694	15 409	17.8%	25 050	47 809	50 564	48.3%	9 641	63%	2
Construction & Maintenance Services	17 969	16 991	16 821	18 904	21 712	5.2%	22 500	20 493	23 524	2.9%	29 926	33 642	35 056	8.3%	6 403	27%	3
Building & Property Costs	30 427	29 193	29 039	30 211	30 668	0.2%	29 069	31 543	35 622	10.7%	34 233	37 615	38 673	6.3%	(1 390)	-4%	
Equipment Maintenance & Rentals	17 118	18 750	18 734	19 142	19 581	3.5%	20 213	19 425	21 302	2.9%	20 771	23 446	24 079	7.8%	(531)	-2%	
Consumer Services	5 189	5 255	5 236	5 452	5 402	1.0%	6 822	6 647	7 673	6.4%	7 945	7 973	8 078	0.8%	271	4%	
Customer & Public Relations	2 223	2 304	2 227	1 716	1 399	-10.3%	1 452	847	1 097	-6.1%	1 651	2 018	2 078	12.6%	554	50%	4
Sponsored Memberships	1 550	1 703	1 677	1 651	1 729	2.9%	1 760	1 681	1 631	-3.7%	1 770	1 920	1 921	4.3%	139	9%	
Computer Services	967	1 152	967	817	1 014	2.9%	1 939	3 096	6 675	87.6%	8 298	12 362	15 230	36.1%	1 623	24%	5
Communication Systems	1 705	1 736	1 668	1 699	1 270	-6.4%	1 465	1 528	1 634	5.6%	1 771	1 830	1 673	-2.6%	137	8%	
Research & Development Costs	2 534	2 903	2 355	1 985	1 763	-7.8%	2 040	1 688	2 209	6.8%	2 333	2 333	2 333	0.0%	123	6%	
Administrative Services	6 293	6 149	6 071	6 068	5 774	-2.1%	6 099	5 712	7 083	8.8%	6 557	6 519	6 527	-0.2%	(526)	-7%	6
External services and materials	**$ 126 850**	**$ 127 711**	**$ 126 024**	**$ 122 843**	**$ 130 338**	**0.7%**	**$ 135 132**	**$ 132 421**	**$ 158 598**	**8.9%**	**$ 171 968**	**$ 211 162**	**$ 221 014**	**13.7%**	**13,370**	**8.4%**	

Figure 4. External Services and Materials 2021/22 Actuals to 2022/23 Forecast - Variance Explanations

MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
2021/22 VS 2022/23

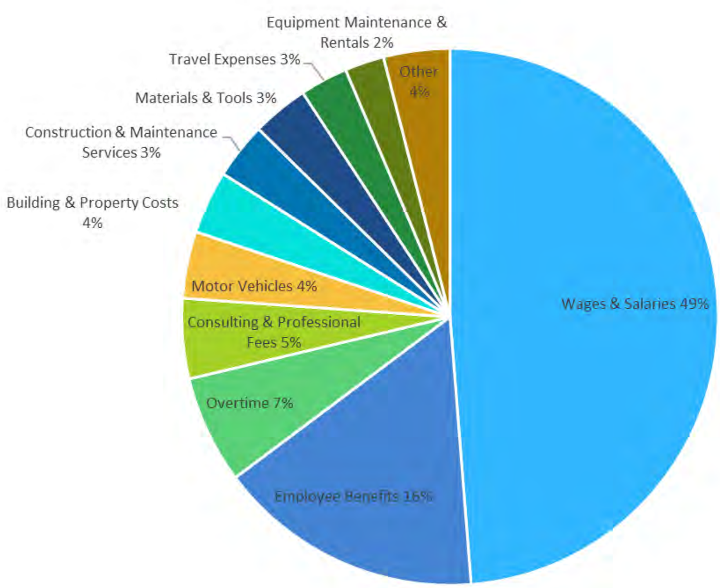
Ref	Cost Element	Inc (Dec)	Explanation
1	Materials & Tools	(3 075)	The decrease is due to a number of factors, including cancelled capital projects in 2021/22 that had to be expensed, costs associated with the COVID-19 Pandemic in 2021/22 that were not planned for in 2022/23, and inventory adjustments that were required in 2021/22.
2	Consulting & Professional Fees	9 641	The increase is due to a number of factors, including work on strategic initiatives as well as costs related to Keeyask environmental monitoring and partnership commitments. Also contributing to the increase are costs related to Customer Billing Policies and Procedures improvements.
3	Construction & Maintenance Services	6 403	The increase is due primarily to required Zebra mussel treatments that did not occur in 2022, as well as increased vegetation management costs and Keeyask monitoring requirements with the generating station in service. There were also increased contract costs as a result of the impacts of the COVID-19 Pandemic, including inflationary increases and global supply chain challenges.
4	Customer & Public Relations	554	The increase is due to delayed spending on advertising and marketing costs associated with Enterprise brand re-positioning as well as an increase in costs due to employees using transit with the return-to-office.
5	Computer Services	1 623	The increase is due primarily to costs associated with cloud computing arrangements.
6	Administrative Services	(526)	The increase in actuals is primarily due to the change in the accounting rule treatment for cloud computing arrangements.

d) As described in Tab 6, Section 6.2 of this Application, in developing the O&A budgets for the Test Years, Manitoba Hydro took a combined top-down and bottom-up approach. A detailed review and budgeting of all expenditures was performed by all business units.

6.5 Employee Related Expenditures are Reflective of Increased FTEs and Increasing Cost Pressures

Manitoba Hydro's O&A expenses are largely driven by employee related costs. Wages, salaries, overtime and employee benefits are the largest driver of O&A expenses. These costs make up, on average, 70-75% of O&A expenditures in the Test Years.

Figure 6.15 2023/24 O&A Expenses by Cost Category



Other employee related expenditures include training and safety, travel, motor vehicle and office expenses.

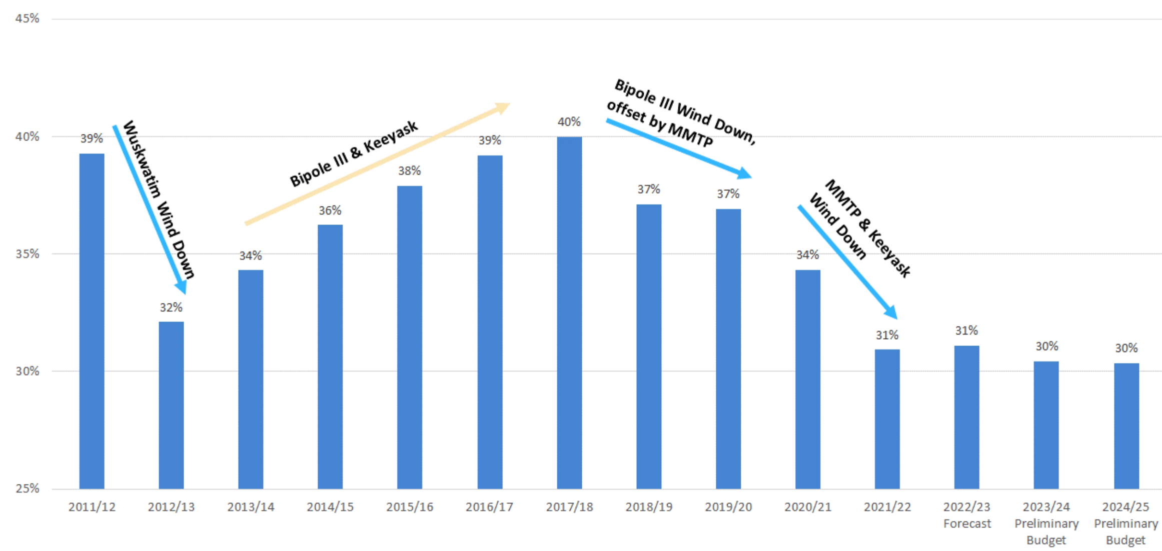
Employee related expenditures are costs associated with providing a pool of resources required for the operation, maintenance and capital activities of the Corporation. These costs are allocated to both capital projects and operating programs using an hourly activity rate which is charged through the corporate time allocation system. Activity rates are calculated for work groups that perform a common set of functions.

Employee related expenditures associated with the day-to-day operations, maintenance and administration of the corporation are expensed each year and included in Manitoba Hydro's annual revenue requirement.

6.8 Shift in Resources from Capital to Operating Activities is reducing Manitoba Hydro's Capitalization Rate

Through the Test Years, the shift from capital activities to operating are resulting in a decreased capitalization rate as evidenced in Figure 6.23 below. While this is not an increase in Manitoba Hydro's total costs, a reduced capitalization rate means that employee related costs which previously would have been part of capital costs are now part of O&A expenses.

Figure 6.23 Capitalization Rate (based on Employee Related Expenditures as a percentage of Gross O&A Expenditures)



There are several factors that are contributing to the decrease in capitalization rate including the:

- Wind down of the Major Projects;
- Increase in maintenance work which has been deferred;
- Business Model changes;
- Shift in Digital and Technology (Cloud) costs being recognized as operating expenses; and
- Other factors related to the impacts of the COVID-19 Pandemic.

6.8.1 Wind Down of the Major Projects

Manitoba Hydro had to build up its workforce in order to execute on the large capital build it experienced over the last several years, primarily related to the Bipole III and the Keeyask

REFERENCE:

Operating Expenses MFR 51, MFR 99

PREAMBLE TO IR (IF ANY):

QUESTION:

In the detail of capitalized labour, please provide a schedule that indicates what portion of the capitalized labour relates to major capital projects versus business operations capital.

RESPONSE:

Please see the table below which provides the portion of capitalized labour and overhead allocated to business operations capital, major capital projects and other. Other includes deferred and subsidiary capital.

MANITOBA HYDRO
CAPITALIZED ACTIVITY & OVERHEAD
($000s)

	2012/13 Actual	2012/13 Actual	2012/13 Actual	2013/14 Actual	2013/14 Actual	2013/14 Actual	2014/15 Actual	2014/15 Actual	2014/15 Actual	2015/16 Actual	2015/16 Actual	2015/16 Actual	2016/17 Actual	2016/17 Actual	2016/17 Actual
	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**
Business Operations Capital	$ (153,527)	$ (47,161)	**$ (200,687)**	$ (167,347)	$ (49,355)	**$ (216,702)**	$ (187,543)	$ (17,366)	**$ (204,909)**	$ (193,800)	$ (12,268)	**$ (206,068)**	(192,112)	(14,704)	**$ (206,816)**
Major Capital	(68,396)	(19,007)	**(87,403)**	(84,968)	(21,664)	**(106,632)**	(86,185)	(4,794)	**(90,979)**	(91,526)	(3,778)	**(95,305)**	(110,461)	(5,426)	**(115,887)**
Other	(12,996)	(3,552)	**(16,548)**	(13,698)	(3,426)	**(17,124)**	(17,171)	(872)	**(18,043)**	(19,831)	(940)	**(20,771)**	(21,752)	(1,309)	**(23,061)**
Capitalized Activities & Overhead	$ (234,919)	$ (69,720)	**$ (304,638)**	$ (266,013)	$ (74,446)	**$ (340,459)**	$ (290,899)	$ (23,032)	**$ (313,931)**	$ (305,157)	$ (16,986)	**$ (322,144)**	$ (324,325)	$ (21,438)	**$ (345,763)**

MANITOBA HYDRO
CAPITALIZED ACTIVITY & OVERHEAD
($000s)

	2017/18 Actual	2017/18 Actual	2017/18 Actual	2018/19 Actual	2018/19 Actual	2018/19 Actual	2019/20 Actual	2019/20 Actual	2019/20 Actual	2020/21 Actual	2020/21 Actual	2020/21 Actual	2021/22 Actual	2021/22 Actual	2021/22 Actual
	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**
Business Operations Capital	(180,691)	(12,586)	**$ (193,277)**	(171,793)	(11,894)	**$ (183,687)**	(173,160)	(13,487)	**$ (186,646)**	(187,606)	(12,880)	**$ (200,486)**	(189,000)	(12,656)	**$ (201,656)**
Major Capital	(116,343)	(4,916)	**(121,259)**	(84,764)	(3,652)	**(88,417)**	(81,365)	(3,733)	**(85,098)**	(55,680)	(2,279)	**(57,959)**	(30,058)	(1,207)	**(31,264)**
Other	(20,412)	(1,453)	**(21,865)**	(16,569)	(823)	**(17,392)**	(14,458)	(649)	**(15,107)**	(8,728)	(348)	**(9,076)**	(6,239)	(331)	**(6,571)**
Capitalized Activities & Overhead	$ (317,446)	$ (18,954)	**$ (336,400)**	$ (273,126)	$ (16,370)	**$ (289,495)**	$ (268,983)	$ (17,869)	**$ (286,851)**	$ (252,014)	$ (15,507)	**$ (267,522)**	$ (225,297)	$ (14,194)	**$ (239,491)**

MANITOBA HYDRO
CAPITALIZED ACTIVITY & OVERHEAD
($000s)

	2022/23 Forecast	2022/23 Forecast	2022/23 Forecast	2023/24 Preliminary Budget	2023/24 Preliminary Budget	2023/24 Preliminary Budget	2024/25 Preliminary Budget	2024/25 Preliminary Budget	2024/25 Preliminary Budget
	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**	Capital Activity	Capital Overhead	**Total**
Business Operations Capital	(208,481)	(14,068)	**$ (222,550)**	(226,934)	(15,412)	**$ (242,347)**	(239,144)	(16,105)	**$ (255,249)**
Major Capital	(15,398)	(1,039)	**(16,437)**	(3,353)	(228)	**(3,580)**	(1,437)	(97)	**(1,534)**
Other	(8,359)	(564)	**(8,923)**	(9,656)	(656)	**(10,311)**	(9,275)	(625)	**(9,900)**
							-		
Capitalized Activities & Overhead	$ (232,238)	$ (15,671)	**$ (247,909)**	$ (239,943)	$ (16,296)	**$ (256,238)**	$ (249,857)	$ (16,826)	**$ (266,683)**

Figure 4. FTE allocated to Business Operations Capital and Major New Generation & Transmission

MANITOBA HYDRO
TOTAL EQUIVALENT FULL TIME (FTE) EMPLOYEES BY CAPITAL CATEGORY

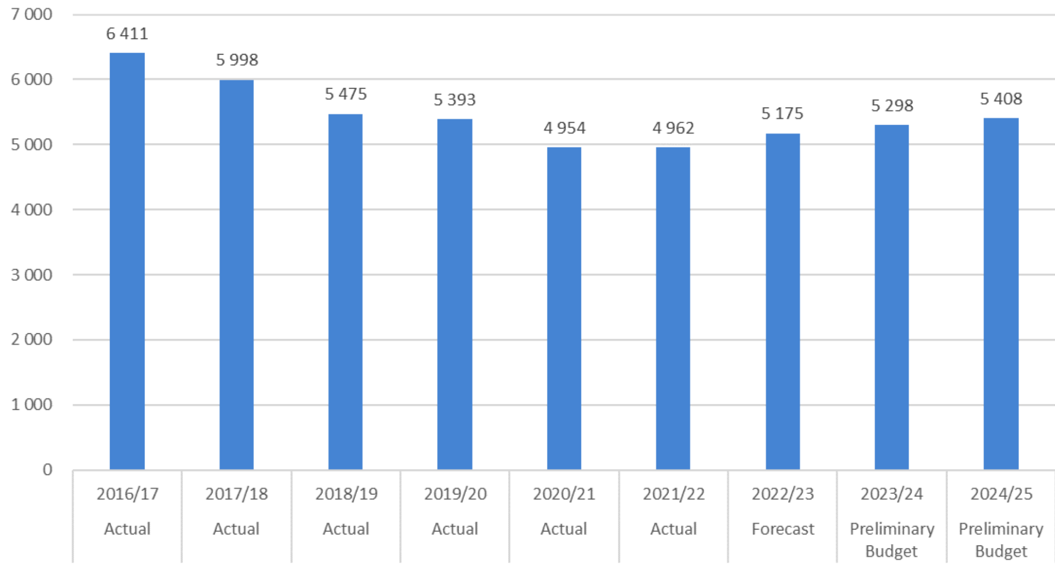
	Straight Time FTEs											
	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Business Operations Capital	1,301	1,403	1,419	1,391	1,262	1,161	1,151	1,118	1,166	1,371	1,406	1,446
Major Generation & Transmission	637	622	637	748	747	539	504	354	187	101	21	9
Other	119	144	161	175	159	128	108	62	43	55	60	56
Total	**2,056**	**2,170**	**2,217**	**2,314**	**2,168**	**1,828**	**1,763**	**1,535**	**1,397**	**1,528**	**1,487**	**1,510**

e) Approximately 40 FTEs within the Purchasing & Accounts Payable functions are allocated to capital via the tools & procurement (T&P) overhead rate from 2016/17 – 2021/22 with approximately 50 FTEs planned for 2022/23-2024/25.

The T&P rate is currently 4% and is allocated to capital projects as an add-on to the activity rates charged. For example, if a project had $500 of activity rate charges, an additional $20 would be charged to account for the 4% T&P overhead rate.

Figure 6.2 below illustrates the straight time FTEs, including both historical actuals and preliminary budgets through the Test Years, on a consolidated level, including subsidiaries. The chart shows that Manitoba Hydro is staffing to pre-pandemic levels, and gradually increasing to 5 408 FTEs by 2024/25.

Figure 6.2 Consolidated Straight Time FTEs, 2016/17 – 2024/25



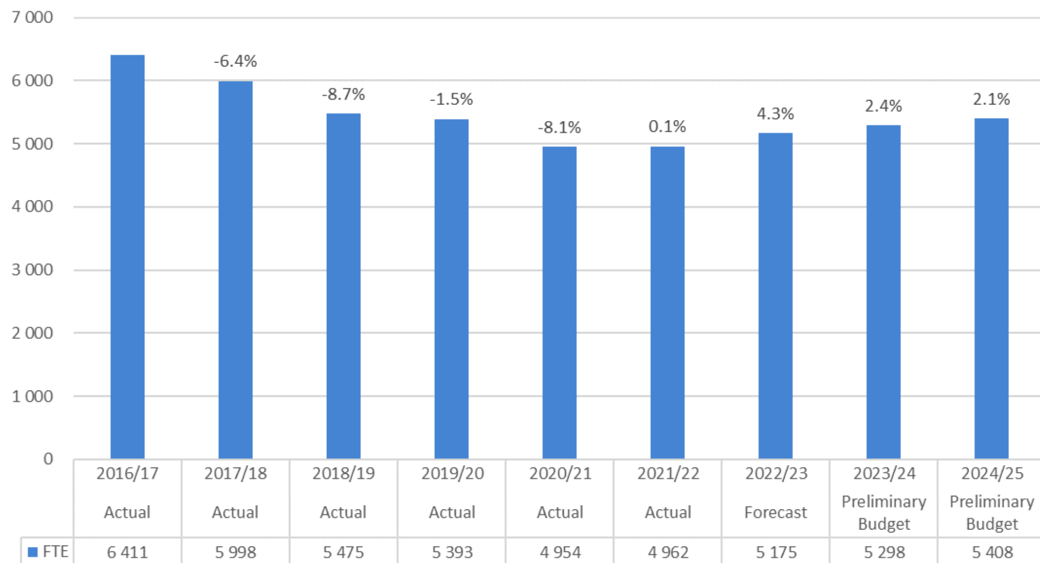
Manitoba Hydro's straight time FTEs in 2020/21, 2021/22 and 2022/23 are lower due to indirect impacts arising out of strike activity and unpaid time off. This will be discussed further in Section 6.4.5.

6.4.1 Trades Trainee Programs

Manitoba Hydro has established technical and trades-related training programs ("Trades Trainee Programs") that provide job training and work experience. The programs currently in place are as follows:

- Powerline Technician
- Power Electrician
- Mechanical Technician
- Gas Service Person
- Telecontrol Technician

Figure 6.9 Change in FTE Levels since 2016/17



There were several factors that contributed to the larger decrease in FTEs. Some of these factors are directly related to FTE levels, while others have indirectly resulted in a reduction to FTE levels.

Factors directly impacting FTE levels include:

- reductions in FTEs in 2020/21 resulting from an external hiring freeze put in place early in the COVID-19 Pandemic to assist with one-time cost constraint measures, which is evidenced in Figure 6.9 above; and
- actual attrition levels in 2020/21 increasing beyond that anticipated, which will be discussed further in Section 6.4.6.

These FTE reductions are deemed direct as there were less employees on the Manitoba Hydro payroll which resulted in a lower FTE count.

Indirect impacts related to situations where active Manitoba Hydro employees did not get paid for a certain quantity of “hours available to work” in a year which, in turn, resulted in a reduction in FTE totals for the enterprise. FTEs are calculated based on the number of hours paid in a year divided by the number of hours available to work in a year. Situations that impacted FTE levels related to this include the following:

- In 2020/21, the majority (approximately 95%) of Manitoba Hydro employees were required to take three days of unpaid leave as a further measure the Corporation took to

REFERENCE:

MFR 50, Appendix 9.7

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please update the FTE schedule to include 2013/14 & 2014/15.
b) Please detail the voluntary departure take-up and the position reductions prior to the voluntary departure program.
c) Please indicate to what extent the employee composition for the years 2016/17 through 2021/22 and forecast for 2022/23 through 2024/25 are assigned to Capital Construction, operations and governance, support, and services.
d) Please indicate what the number of FTEs in each of the years was dedicated to major, generation and transmission projects versus Base Capital projects.
e) Please indicate what portion of government, support and services are allocated to construction each year. Provide an example of how these support costs are allocated to a capital project.

RESPONSE:

a) Please see **Figure 1** for the FTE schedule, updated to include 2013/14 & 2014/15.

Figure 1. Straight Time FTE by Business Unit

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT

	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
President & CEO	14	15	14	14	10	9	8	8	10	19	21	21
Customer Solutions & Experience	520	498	484	475	428	377	373	317	316	355	363	365
Asset Planning & Delivery	1,711	1,731	1,771	1,848	1,776	1,586	1,509	1,352	1,236	1,272	1,282	1,307
Operations	3,008	2,946	2,875	2,804	2,600	2,427	2,407	2,253	2,386	2,533	2,550	2,598
Digital & Technology	314	308	295	288	272	252	249	237	237	246	263	273
HR & Safety, Health and Environment	181	171	176	178	164	150	159	149	154	168	188	209
Chief Financial Officer	500	493	479	465	410	346	352	335	349	364	368	372
External & Indigenous Relations and Comm	126	125	132	129	118	115	116	103	111	122	123	125
Business Unit Total	**6,374**	**6,287**	**6,226**	**6,201**	**5,778**	**5,262**	**5,173**	**4,753**	**4,799**	**5,079**	**5,158**	**5,270**
Other Segments/Corporate Adjustments	182	196	184	210	220	213	220	201	163	96	140	138
Total Corporation	**6,556**	**6,483**	**6,410**	**6,411**	**5,998**	**5,475**	**5,393**	**4,954**	**4,962**	**5,175**	**5,298**	**5,409**

As described in Section 6.4.5 of Tab 6, Manitoba Hydro's straight time FTEs in 2020/21, 2021/22 and 2022/23 are lower due to indirect impacts arising out of strike activity and unpaid time off.

b) Please see **Figure 2** below for the voluntary departure program take-up and the position reductions prior to the voluntary departure program. Please note that there have been no changes to these totals since the last time it was filed in the 2019 Electric GRA, PUB/MH I-23 a-b.

Figure 2. Position Reductions

MANITOBA HYDRO
POSITION REDUCTIONS

	Committed Position Reduction Plan				Voluntary Departure Plan			
	2014/15 Actual	2015/16 Actual	2016/17 Actual	Plan Total	2017/18 Actual	2018/19 Budget	Plan Total	Grand Total
Total	**232**	**168**	**29**	**429**	**795**	**26**	**821**	**1 250**

c) Please see **Figure 3** for the FTEs allocated to Capital Construction, Operations & Maintenance and Governance, Support & Services.

Figure 3. FTE allocated to Capital Construction, Operations and Maintenance and Governance, Support & Services

	Straight Time FTEs								
	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Capital Construction	2,314	2,168	1,828	1,763	1,535	1,397	1,528	1,487	1,510
Operations & Maintenance	2,506	2,332	2,264	2,338	2,213	2,236	2,464	2,475	2,505
Governance, Support & Services*	1,381	1,278	1,170	1,071	1,005	1,166	1,087	1,196	1,255
Total	**6,201**	**5,778**	**5,262**	**5,173**	**4,753**	**4,799**	**5,079**	**5,158**	**5,270**

*Note: The Purchasing and Accounts Payable function FTEs are capitalized through the Tools & Procurement overhead rate, as further outlined in e) below.

d) Please see **Figure 4** for the FTEs allocated to Business Operations Capital and Major New Generation & Transmission. Additional years have been added in response to PUB/MH I-77 c).

Figure 4. FTE allocated to Business Operations Capital and Major New Generation & Transmission

MANITOBA HYDRO
TOTAL EQUIVALENT FULL TIME (FTE) EMPLOYEES BY CAPITAL CATEGORY

	Straight Time FTEs											
	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Business Operations Capital	1,301	1,403	1,419	1,391	1,262	1,161	1,151	1,118	1,166	1,371	1,406	1,446
Major Generation & Transmission	637	622	637	748	747	539	504	354	187	101	21	9
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Total	**2,056**	**2,170**	**2,217**	**2,314**	**2,168**	**1,828**	**1,763**	**1,535**	**1,397**	**1,528**	**1,487**	**1,510**

e) Approximately 40 FTEs within the Purchasing & Accounts Payable functions are allocated to capital via the tools & procurement (T&P) overhead rate from 2016/17 – 2021/22 with approximately 50 FTEs planned for 2022/23-2024/25.

The T&P rate is currently 4% and is allocated to capital projects as an add-on to the activity rates charged. For example, if a project had $500 of activity rate charges, an additional $20 would be charged to account for the 4% T&P overhead rate.

MINISTER
OF Crown Services

Room 314
Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

April 24, 2019

Ms. Marina James, Chair
Manitoba Hydro Electric Board
22nd Floor, 360 Portage Ave.
Winnipeg, MB R3C 0G8

Dear Ms. James:

Manitobans have elected a government that is committed to improving the province of Manitoba. Our priorities include restoring prudent fiscal management, creating jobs, improving health care and education, improving our partnerships and relationships with business, communities and indigenous Manitobans, and increasing openness and transparency of our government. We are focused on achieving results on behalf of all Manitobans.

The Government of Manitoba has entrusted you and your Board to oversee the strategic operation of Manitoba Hydro. This letter is an update to a previous letter and serves to set out our expectations for you.

First and foremost, Manitoba Crown corporations are part of our government family, and must align with our government's mandate to fix our finances, repair our services and rebuild our economy. As referenced in our Ministerial mandates, the old way of doing things, where government just got bigger and more expensive is over.

Crown corporations finances are consolidated in Government's summary statements and we are moving towards a "whole of government" approach to budget processes. Fluctuations in your net income impact our net income on a dollar-for-dollar basis, and thus help or hinder our efforts to move towards balance. All Manitobans expect that you deliver your important services in a fiscally sustainable, predictable, transparent and reliable manner.

In the coming year, we will be taking more steps to fully integrate Crown corporations into our summary budget process. This may affect the timing of budget processes and other financial matters. I am seeking your support in ensuring accurate, timely financial reporting to government, in particular your vigilance in providing clear and early notice of significant variances to budgets, or changes to your medium and long term forecasts. Please continue to work with Crown Services Secretariat and Treasury Board Secretariat to strengthen alignment with government overall.

The province's efforts to achieve fiscal sustainability requires all of us to work together. In the past, our Crown corporations have struggled to properly manage their costs and strayed outside of their mandates. We expect you to scrupulously manage all operating costs, defer all non-critical capital projects without a clear return on investment, and carefully examine business plans for opportunities to achieve improved financial results. We also expect the Board to carefully examine overall staffing efficiencies. Centrally, we have reduced overall management by over 15%, conducted a “spans and layers” review of management structures, and reduced overall headcount by 8%. We expect you to work towards the same, or more.

In addition, we ask you to review all compensation agreements, including executive compensation practices and interchange agreements to ensure alignment with government policies and practices. The expectation is that compensation practices will reflect the principles of responsible fiscal management and protect the sustainability of services to customers and ratepayers.

We have a strong interest in reducing red tape for all Manitobans. As a Crown, we ask that you integrate the red-tape reduction process and reporting into your Board processes – whether by way of a new Committee or regular reporting mechanisms.

We ask that you limit advertising to responsible mandate focused advertising considered essential for you to successfully perform your core business and continue to work with Government on the alignment of all sponsorship activities with central government.

We also ask that you assume ownership and leadership in respect of our following priorities for you:

- Support the implementation of Efficiency Manitoba to ensure a smooth transition of Demand Side Management programs for Manitoba Hydro customers.
- Cooperate with the inquiry into the development of the Keeyask Generating Station and the Bipole III transmission line and converter stations.
- Work closely with the Province (through Crown Services Secretariat and Treasury Board Secretariat) in respect of any new long-term contractual commitments, including any potential long-term electricity sale arrangements, to ensure return on investment.
- Pursue opportunities with the federal government and other provinces to advance climate change initiatives, including the potential development of an East-West Grid and work with our Intergovernmental Affairs department on opportunities to leverage financial partnerships with the federal government.
- Work with the province on implementing the provincial economic development strategy focused on maximizing economic spinoffs for Manitoba, creating new revenues for Manitoba

Hydro and mitigating the need for future rate increases for customers or less profitable sales outside of Manitoba on the spot market.
- Work with the Public Utilities Board to streamline processes, in an effort to reduce overall costs to ratepayers of regulatory hearings.

Government is committed to advancing reconciliation with Indigenous Manitobans through the renewal of its consultation framework to ensure respectful and productive consultations. All government organizations are expected to contribute to reconciliation in their interactions with Indigenous communities and individuals.

I have also been tasked to achieve more open government through increased transparency in tendering and procurement practices. All Crown corporations should ensure their procurement practices reflect this priority and are aligned with the requirements of trade agreements to which Manitoba is a signatory. In Government, we are centralizing our procurement practices and we urge you to pro-actively join us in this process so that we can shop smarter for all Manitobans.

Government is committed to ensuring all employees are treated with dignity and respect. Respectful workplace policies need to be reviewed and updated to ensure employees have safe and effective pathways to report disrespectful or harassing behaviour without fear of repercussion.

It is my expectation these priorities and initiatives, in addition to those included in your business plan, will be reported on in your 2019/20 Annual Report.

I know you and your colleagues on the Board understand that it is an important responsibility to guide and oversee Manitoba's publicly owned corporations. I know I can count on your hard work and dedication to fulfill your Board's duties and responsibilities. I look forward to hearing your advice and recommendations and to working together on achieving results that will make Manitoba the Most Improved Province and I sincerely thank you for taking on this role and for your dedication and efforts.

Respectfully,

Colleen Mayer
Minister

REFERENCE:

MFR 50, FTEs by Business Unit

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please add columns including the changes in FTEs in each of the years 2021/22, 2022/23, 2023/24 and 2024/25 and explain the reasons for the changes in Business unit staffing.

b) Please provide a headcount analysis in the following format by business unit, and provide a comparison on this basis for 2021/22 actual versus forecast at the 2021/22 Interim, 2022/23 forecast vs. 2022/23 budget at 2023/24 interim and provide a narrative explanation of the changes.

NORMAL OPERATIONS STAFFING LEVELS
2020/21 Total Actual (FTE)

Line No.	CATEGORY	President & CEO	Customer Solutions & Experience	Asset Planning & Delivery	Operations	Digital & Technology	HR & Safety, Health & Environment	CFO	Ext. & Indigenous Relations and Comm	Other Segments	Total
1	Management	-	-	-	-	-	-	-	-	-	-
2	Supervisory	-	-	-	-	-	-	-	-	-	-
3	Technical/1Professional	-	-	-	-	-	-	-	-	-	-
4	Clerical	-	-	-	-	-	-	-	-	-	-
5	Student/Intern	-	-	-	-	-	-	-	-	-	-
6	Total	10	316	1,236	2,386	237	154	349	111	163	4,962

c) Please provide a similar analysis to (b) comparing the forecast changes in FTEs for 2022/23, 2023/24 and 2024/25 and explain the changes.

RESPONSE

a) Please see Figure 1 and Figure 2 below for straight time and overtime FTEs by business unit, with columns added for the change in FTEs in each of the years 2020/21, 2021/22, 2022/23, 2023/24 and 2024/25.

Figure 1. Straight Time FTEs by Business Unit, with columns for changes in each of the years 2020/21, 2021/22, 2022/23, 2023/24 and 2024/25.

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT

	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2019/20 VS 2020/21 Variance	Variance %	Ref	2021/22 Actual	2020/21 VS 2021/22 Variance	Variance %	Ref	2022/23 Forecast	2021/22 VS 2022/23 Variance	Variance %	Ref	2023/24 Preliminary Budget	2022/23 VS 2023/24 Variance	Variance %	Ref	2024/25 Preliminary Budget	2023/24 VS 2024/25 Variance	Variance %	Ref
President & CEO	14	10	9	8	8	(0)	-1.0%		10	2	26.7%		19	9	85.5%		21	3	14.0%		21	-	0.0%	
Customer Solutions & Experience	475	428	377	373	317	(56)	-17.6%	1	316	(2)	-0.6%		355	39	12.5%	1	363	8	2.2%		365	2	0.5%	
Asset Planning & Delivery	1 848	1 776	1 586	1 509	1 352	(158)	-11.7%	2	1 236	(115)	-8.5%	1	1 272	36	2.9%		1 282	10	0.8%		1 307	25	1.9%	
Operations	2 804	2 600	2 427	2 407	2 253	(154)	-6.8%	3	2 386	133	5.9%	2	2 533	146	6.1%	2	2 550	17	0.7%		2 598	48	1.9%	
Digital & Technology	288	272	252	249	237	(12)	-5.2%		237	1	0.3%		246	9	3.9%		263	17	6.8%	1	273	10	3.8%	
HR & Safety, Health and Environment	178	164	150	159	149	(10)	-6.5%		154	5	3.4%		168	14	9.2%		188	20	11.7%	2	209	21	11.1%	1
Chief Financial Officer	465	410	346	352	335	(17)	-5.0%	4	349	14	4.2%		364	15	4.3%		368	4	1.0%		372	5	1.3%	
External & Indigenous Relations and Comm	129	118	115	116	103	(13)	-12.6%		111	8	7.6%		122	12	10.5%		123	1	0.8%		125	2	1.8%	
Business Unit Total	**6 201**	**5 778**	**5 262**	**5 173**	**4 753**	**(420)**	**-8.8%**		**4 799**	**46**	**1.0%**		**5 079**	**280**	**5.8%**		**5 158**	**79**	**1.6%**		**5 270**	**112**	**2.2%**	
Other Segments/Corporate Adjustments	210	220	213	220	201	(19)	-9.4%	5	163	(38)	-19.0%	3	96	(67)	-41.1%	3	140	44	46.1%	3	138	(2)	-1.4%	
Total Corporation	**6 411**	**5 998**	**5 475**	**5 393**	**4 954**	(439)	-8.9%		**4 962**	7	0.1%		**5 175**	213	4.3%		**5 298**	123	2.4%		**5 408**	109	2.1%	

Manitoba Hydro

Figure 2. Overtime FTEs by Business Unit, with columns for changes in each of the years 2020/21, 2021/22, 2022/23, 2023/24 and 2024/25.

MANITOBA HYDRO
OVERTIME TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT

	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2019/20 VS 2020/21 Variance	Variance %	Ref	2021/22 Actual	2020/21 VS 2021/22 Variance	Variance %	Ref	2022/23 Forecast	2021/22 VS 2022/23 Variance	Variance %	Ref	2023/24 Preliminary Budget	2022/23 VS 2023/24 Variance	Variance %	Ref	2024/25 Preliminary Budget	2023/24 VS 2024/25 Variance	Variance %
President & CEO	0	0	0	0	0	0	100.0%		0	(0)	-100.0%		0	-	0.0%		0	-			0	-	
Customer Solutions & Experience	4	4	4	5	8	3	34.7%		9	1	15.2%		6	(2)	-27.2%		6	(0)	-3.2%		6	0	0.0%
Asset Planning & Delivery	176	190	151	150	83	(67)	-81.3%	1	69	(14)	-17.1%	1	93	24	34.8%	1	87	(6)	-6.3%	1	87	0	0.5%
Operations	194	177	182	202	173	(29)	-16.7%	2	209	36	20.9%	2	212	3	1.4%		226	14	6.4%	2	226	(0)	-0.1%
Digital & Technology	2	2	1	3	3	0	10.8%		2	(1)	-24.6%		2	(1)	-26.0%		2	1	31.2%		2	(0)	-0.7%
HR & Safety, Health and Environment	0	2	0	1	2	1	57.5%		4	2	137.5%		2	(2)	-43.7%		3	1	32.6%		3	-	0.0%
Chief Financial Officer	15	12	8	8	4	(4)	-100.6%		5	1	18.0%		9	4	77.6%		8	(1)	-6.6%		8	0	0.0%
External & Indigenous Relations and Comm	2	3	3	3	2	(1)	-35.8%		3	1	49.9%		5	2	64.2%		5	(0)	-0.5%		5	-	0.0%
Business Unit Total	**393**	**390**	**349**	**372**	**275**	**(97)**	**-35.4%**		**301**	**26**	**9.5%**		**329**	**28**	**9.2%**		**337**	**8**	**2.5%**		**337**	**0**	**0.1%**
Other Segments/Corporate Adjustments	0	0	0	0	0	-	0.0%	0	0	-			0	-			0	-			0	-	
Total Corporation	**393**	**390**	**349**	**372**	**275**	(97)	-35.4%		**301**	26	9.5%		**329**	28	9.2%		**337**	8	2.5%		**337**	0	0.1%

Please see Figures 3 to 7 for explanations for the changes in straight time FTEs from 2020/21 to 2024/25. Differences greater than 15 FTE and 5% have been explained.

Please see Figures 8 to 11 for explanations for the changes in overtime FTEs from 2020/21 to 2024/25. Significant differences have been explained.

Figure 3. 2019/20 vs 2020/21 Straight Time FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2019/20 VS 2020/21

Ref	Business Unit	Inc (Dec)	Explanation
1	Customer Solutions & Experience	(56)	Decrease is primarily due to staff transitioning to Efficiency Manitoba, with the balance due to higher vacancies including suspending the hiring of summer students as a result of the government cost saving initiative.
2	Asset Planning & Delivery	(158)	Decrease is due to higher vacancies as a result of the government cost saving initiative which included suspending the hiring of summer students and a continued suspension of hiring into the engineering trainee programs. There were also decreases related to the Keeyask project as the project moved towards completion.
3	Operations	(154)	Decrease is primarily due to higher vacancies as a result of the government cost saving initiative which included suspending the hiring of summer students and resulted in delays in hiring new trades trainees.
4	Chief Financial Officer	(17)	Decrease is due to higher vacancies as a result of the government cost saving initiative which included suspending the hiring of summer students.
5	Other Segments/Corporate Adjustments	(19)	The difference is due primarily to a reduction in FTE associated with the integration of MHI into Manitoba Hydro.

Figure 4. 2020/21 vs 2021/22 Straight Time FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2020/21 VS 2021/22

Ref	Business Unit	Inc (Dec)	Explanation
1	Asset Planning & Delivery	(115)	The decrease is primarily attributable to the centralization of the trades trainee program under Operations. Also contributing to the decrease was a reduction in FTE working on the Keeyask project.
2	Operations	133	The increase is primarily attributable to transfers from other parts of the organization, primarily the centralization of the trades trainee program under Operations. The remaining increases were net transfers between business units to facilitate the transfer of staff related to the reorganization of tasks within the organization.
3	Other Segments/Corporate Adjustments	(38)	The difference is due primarily to a reduction in FTE associated with the integration of MHI into Manitoba Hydro.

Figure 5. 2021/22 vs 2022/23 Straight Time FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2021/22 VS 2022/23

Ref	Business Unit	Inc (Dec)	Explanation
1	Customer Solutions & Experience	39	The increase is primarily due to additional staff required to support strategic initiatives with a focus on customer centricity, digitization, and integrated resource planning. To a lesser degree the increase is also due to filling vacancies.
2	Operations	146	The increase in FTEs is related to the rebuilding the trades trainee program and filling vacancies.
3	Other Segments/Corporate Adjustments	(67)	Difference is due primarily to an enterprise wide vacancy factor in the fiscal 2022/23 budget, recognizing the current labour force challenges.

Figure 6. 2022/23 vs 2023/24 Straight Time FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2022/23 VS 2023/24

Ref	Business Unit	Inc (Dec)	Explanation
1	Digital & Technology	17	The increase is primarily due to changes resulting from the business model review which includes increases related to cyber security and digital. There are also increases associated with professional trainees for Digital and Technology.
2	HR & Safety, Health and Environment	20	The increase is primarily due to the realignment of the organization resulting from the business model review and HR resources required to support this initiative. In addition, there were increases associated with the filling of vacancies in the Safety, Health & Environment division.
3	Other Segments/Corporate Adjustments	44	The difference is due primarily to the enterprise wide vacancy factor in the fiscal 2022/23 budget, partially offset by a reduction in FTE associated with the integration of MHI into Manitoba Hydro.

Figure 7. 2023/24 vs 2024/25 Straight Time FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
STRAIGHT TIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2023/24 VS 2024/25

Ref	Business Unit	Inc (Dec)	Explanation
1	HR & Safety, Health and Environment	21	The increase is primarily due to the realignment of the organization resulting from the business model review and HR resources required to support this initiative. In addition, there were increases associated with the filling of vacancies in the Safety, Health & Environment division.

Figure 8. 2019/20 vs 2020/21 Overtime FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
OVERTIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2019/20 VS 2020/21

Ref	Business Unit	Inc (Dec)	Explanation
1	Asset Planning & Delivery	(67)	Decrease was related to the COVID-19 Pandemic and associated government cost saving initiative.
2	Operations	(29)	Decrease was related to the COVID-19 Pandemic and associated government cost saving initiative as well as impacts resulting from the major storm in October 2019.

Figure 9. 2020/21 vs 2021/22 Overtime FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
OVERTIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2020/21 VS 2021/22

Ref	Business Unit	Inc (Dec)	Explanation
1	Asset Planning & Delivery	(14)	The decrease is primarily attributed to less overtime requirements for the Keeyask project as the project nears completion.
2	Operations	36	The increase is primarily attributable to the addition of incremental trades trainees and for the commissioning of Keeyask as it transitioned into operations.

Figure 10. 2021/22 vs 2022/23 Overtime FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
OVERTIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2021/22 VS 2022/23

Ref	Business Unit	Inc (Dec)	Explanation
1	Asset Planning & Delivery	24	The increase is primarily attributable to anticipated capital requirements in order to ensure project delivery.

Figure 11. 2022/23 vs 2023/24 Overtime FTE by Business Unit with Variance Explanations

MANITOBA HYDRO
OVERTIME FULL TIME EQUIVALENT (FTE) EMPLOYEES BY BUSINESS UNIT
2022/23 VS 2023/24

Ref	Business Unit	Inc (Dec)	Explanation
1	Asset Planning & Delivery	(6)	The decrease is primarily attributable to less overtime requirements for the Keeyask project as the project nears completion.
2	Operations	14	The increase is primarily attributable to the addition of incremental trades trainees.

b) Manitoba Hydro does not track headcount information. This was done during the VDP process only.

c) Please see Figures 12 to 14 for a breakdown of FTEs by category. Please note that Supervisors are included in the Technical/Professional category in the table below. Manitoba Hydro does not have every supervisor in a “Supervisor” classification making it challenging to provide information by that category. An example of this includes employees that are professionals and in a supervisory role. A Professional Engineer can be in a classification that is identified as a technical/professional position even though that individual is in a supervisory position. Please see Figures 3 through 11 above for FTE variance explanations.

Figure 12. 2021/22 Actuals vs 2022/23 Forecast

		Management	Technical/ Professional	Clerical	Student/ Intern	Vacancy	Total
2021/22 Actual	President & CEO	9	1	0	0	0	**10**
	Customer Solutions & Experience	14	143	144	14	0	**316**
	Asset Planning & Delivery	37	1 135	42	22	0	**1 236**
	Operations	36	2 162	162	27	0	**2 386**
	Digital & Technology	7	218	7	5	0	**237**
	HR & Safety, Health and Environment	8	131	12	2	0	**154**
	Chief Financial Officer	23	292	26	7	0	**349**
	External & Indigenous Relations and Comm	8	89	10	2	0	**110**
	Business Unit Total	**142**	**4 172**	**404**	**81**	**0**	**4 799**
	Other Segments/Corporate Adjustments						163
	Total Corporation	**142**	**4 172**	**404**	**81**	**0**	**4 962**
2022/23 Forecast	President & CEO	8	11	0	0	0	**19**
	Customer Solutions & Experience	14	176	165	19	(19)	**355**
	Asset Planning & Delivery	37	1 321	44	27	(157)	**1 272**
	Operations	36	2 528	186	31	(249)	**2 532**
	Digital & Technology	11	246	9	7	(27)	**246**
	HR & Safety, Health and Environment	9	147	18	2	(7)	**168**
	Chief Financial Officer	23	329	26	8	(22)	**364**
	External & Indigenous Relations and Comm	8	105	11	3	(5)	**122**
	Business Unit Total	**146**	**4 863**	**458**	**98**	**(486)**	**5 079**
	Other Segments/Corporate Adjustments						96
	Total Corporation	**146**	**4 863**	**458**	**98**	**(486)**	**5 175**
Change	President & CEO	(1)	10	0	0	0	**9**
	Customer Solutions & Experience	(0)	33	21	5	(19)	**39**
	Asset Planning & Delivery	0	186	1	5	(157)	**36**
	Operations	0	366	24	4	(249)	**146**
	Digital & Technology	4	28	2	2	(27)	**9**
	HR & Safety, Health and Environment	1	15	6	(1)	(7)	**14**
	Chief Financial Officer	(0)	37	(0)	1	(22)	**15**
	External & Indigenous Relations and Comm	(0)	16	0	1	(5)	**12**
	Business Unit Total	**4**	**691**	**54**	**17**	**(486)**	**280**
	Other Segments/Corporate Adjustments						(67)
	Total Corporation	**4**	**691**	**54**	**17**	**(486)**	**213**

Figure 13. 2022/23 Forecast vs 2023/24 Preliminary Budget

		Management	Technical/ Professional	Clerical	Student/ Intern	Vacancy	Total
2022/23 Forecast	President & CEO	8	11	0	0	0	**19**
	Customer Solutions & Experience	14	176	165	19	(19)	**355**
	Asset Planning & Delivery	37	1 321	44	27	(157)	**1 272**
	Operations	36	2 528	186	31	(249)	**2 532**
	Digital & Technology	11	246	9	7	(27)	**246**
	HR & Safety, Health and Environment	9	147	18	2	(7)	**168**
	Chief Financial Officer	23	329	26	8	(22)	**364**
	External & Indigenous Relations and Comm	8	105	11	3	(5)	**122**
	Business Unit Total	**146**	**4 863**	**458**	**98**	**(486)**	**5 079**
	Other Segments/Corporate Adjustments						96
	Total Corporation	**146**	**4 863**	**458**	**98**	**(486)**	**5 175**
2023/24 Prelim Budget	President & CEO	12	10	0	0	(1)	**21**
	Customer Solutions & Experience	16	203	209	12	(77)	**363**
	Asset Planning & Delivery	36	1 447	44	30	(275)	**1 282**
	Operations	36	2 675	188	29	(377)	**2 549**
	Digital & Technology	15	267	8	6	(32)	**263**
	HR & Safety, Health and Environment	11	198	24	5	(49)	**188**
	Chief Financial Officer	27	340	25	8	(32)	**368**
	External & Indigenous Relations and Comm	9	111	11	5	(12)	**123**
	Business Unit Total	**162**	**5 250**	**508**	**94**	**(856)**	**5 158**
	Other Segments/Corporate Adjustments						140
	Total Corporation	**162**	**5 250**	**508**	**94**	**(856)**	**5 298**
Change	President & CEO	4	(1)	0	0	(1)	**3**
	Customer Solutions & Experience	2	27	43	(7)	(58)	**8**
	Asset Planning & Delivery	(1)	126	1	3	(118)	**10**
	Operations	0	147	2	(3)	(128)	**17**
	Digital & Technology	4	20	(1)	(1)	(6)	**17**
	HR & Safety, Health and Environment	2	51	6	3	(42)	**20**
	Chief Financial Officer	4	11	(1)	(0)	(10)	**4**
	External & Indigenous Relations and Comm	1	5	0	1	(7)	**1**
	Business Unit Total	**16**	**387**	**50**	**(3)**	**(370)**	**79**
	Other Segments/Corporate Adjustments						44
	Total Corporation	**16**	**387**	**50**	**(3)**	**(370)**	**123**

Figure 14. 2023/24 Preliminary Budget vs 2024/25 Preliminary Budget

		Management	Technical/ Professional	Clerical	Student/ Intern	Vacancy	Total
2023/24	President & CEO	12	10	0	0	(1)	**21**
Prelim	Customer Solutions & Experience	16	203	209	12	(77)	**363**
Budget	Asset Planning & Delivery	36	1,447	44	30	(275)	**1,282**
	Operations	36	2,675	188	29	(377)	**2,549**
	Digital & Technology	15	267	8	6	(32)	**263**
	HR & Safety, Health and Environment	11	198	24	5	(49)	**188**
	Chief Financial Officer	27	340	25	8	(32)	**368**
	External & Indigenous Relations and Comm	9	111	11	5	(12)	**123**
	Business Unit Total	**162**	**5,250**	**508**	**94**	**(856)**	**5,158**
	Other Segments/Corporate Adjustments						140
	Total Corporation	**162**	**5,250**	**508**	**94**	**(856)**	**5,298**
2024/25	President & CEO	12	10	0	0	(1)	**21**
Prelim	Customer Solutions & Experience	16	205	209	12	(77)	**365**
Budget	Asset Planning & Delivery	37	1,457	45	30	(262)	**1,307**
	Operations	36	2,676	188	29	(330)	**2,598**
	Digital & Technology	15	274	8	6	(30)	**273**
	HR & Safety, Health and Environment	11	198	24	5	(29)	**209**
	Chief Financial Officer	27	341	25	8	(29)	**372**
	External & Indigenous Relations and Comm	9	111	11	5	(10)	**125**
	Business Unit Total	**163**	**5,271**	**509**	**95**	**(767)**	**5,270**
	Other Segments/Corporate Adjustments						138
	Total Corporation	**163**	**5,271**	**509**	**95**	**(767)**	**5,408**
Change	President & CEO	0	0	0	0	0	**0**
	Customer Solutions & Experience	0	2	0	0	(0)	**2**
	Asset Planning & Delivery	1	10	1	0	13	**25**
	Operations	0	1	0	0	47	**48**
	Digital & Technology	0	7	0	0	3	**10**
	HR & Safety, Health and Environment	0	0	0	0	21	**21**
	Chief Financial Officer	0	1	0	0	4	**5**
	External & Indigenous Relations and Comm	0	0	0	0	2	**2**
	Business Unit Total	**1**	**21**	**1**	**0**	**89**	**112**
	Other Segments/Corporate Adjustments						(2)
	Total Corporation	**1**	**21**	**1**	**0**	**89**	**110**

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Prior references
MH Exhibit #78 2017/18 & 2018/19 GRA
IR Coalition/MH I-13 (b)(c) 2019/20 GRA

Operating Expenses

Manitoba Hydro's OM&A Target Setting Analysis for 2020/21, 2021/22, 2022/23 and 2023/24.

At the start of the 2019/20 fiscal year, Manitoba Hydro embarked on a long-term strategic planning process, which led to the development of Strategy 2040. Early in the process, it was identified that there was a need to shift the business model to either fill in gaps in capabilities or mature others that already existed. As a result, a thorough review was done of Manitoba Hydro's organizational structure, its processes, technology and data use, how decisions were made, metrics in place and the culture.

Through the long-term strategic planning process, it became clear that disruptive forces are reshaping the utility industry and changing customer behaviours and expectations. Manitoba Hydro realigned its organizational structure to effectively respond to this future.

Manitoba Hydro has also evolved in its enterprise-wide planning process, which has changed the approach taken on the annual planning cycle.

An overview of Manitoba Hydro's Operating & Administrative (O&A) target setting process for 2020/21 through 2023/24 is further discussed below.

For the 2020/21 Fiscal Year:

Historically, Manitoba Hydro was organized around functional segments (e.g., Generation, Transmission, Distribution); in 2019/20, Manitoba Hydro adopted an approach that aligns the organization around operations, managing assets, providing customer service, as well as supporting business units.

As the organizational changes were put in place shortly in advance of the 2020/21 fiscal year, and significant changes would be forthcoming in that fiscal year, the approach taken for setting O&A targets included providing a 2% increase in budget from the 2019/20 approved budget for escalation and apportioning budget targets to each business unit.

A detailed budgeting process was used to review and update staffing levels, ensure that cost requirements were included for specific business requirements and known changes were incorporated. The Vice-President leading each business unit oversaw the approved operating expenditures among the programs and divisions under their area of responsibility. Detailed departmental budgets supported the approved business unit budgets.

For the 2021/22 Fiscal Year:

With the start of the COVID-19 Pandemic in March 2020, the business model review that had started in 2019/20, was paused for a period of time and then re-started, causing it to become delayed. For the 2021/22 fiscal year, Manitoba Hydro prepared budgets by cost element based on high level changes that were anticipated in comparison to the 2020/21 budget. Detailed departmental budgets were not prepared due to Manitoba Hydro being in the midst of significant organizational changes as a result of the Business Model Review process that was still on-going.

For the 2022/23 and 2023/24 Fiscal Years:

For the 2022/23 fiscal year planning cycle, Manitoba Hydro embarked on its first enterprise planning process. This process embeds strategic initiatives in business unit plans and identifies what resources are needed to deliver on those plans, linking business planning to the budgeting process. This operationalized Strategy 2040 and enabled the O&A target setting process. This approach has continued for the 2023/24 fiscal year planning process.

Further details on the approach taken for the 2022/23 and 2023/24 O&A budgeting process can be found in Tab 6, Section 6.2.

Figure 2 – Part (ii)

Figure 2. Requested Information from 2012/13 to 2024/25 - Part (ii)

MANITOBA HYDRO
CONTRACTED WAGE SETTLEMENTS

Effective Date	AMHSSE	CE[1]	CUPE	IBEW	MHPEA[1]	UNIFOR[2]
January 1, 2012	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
January 1, 2013	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
January 1, 2014	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
January 1, 2015	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
January 1, 2016	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
January 1, 2017	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%
January 1, 2018	1.00%	0.00%	1.00%	2.00%	0.00%	1.00%
January 1, 2019	1.25%	0.75%	1.25%	1.5%[3]	0.75%	1.25%
January 1, 2020	1.50%	1.00%	1.50%	0.5%[3]	1.00%	1.50%
January 1, 2021	0.00%	1.50%	0.50%	1.5%[3]	1.50%	1.50%[4]
January 1, 2022	1.25%	1.25%	1.50%	TBD	1.25%	1.75%[4]
January 1, 2023	1.25%	1.50%	1.50%[5]	TBD	1.50%[5]	1.50%
January 1, 2024	1.50%	TBD	1.50%	TBD	TBD	2.00%
January 1, 2025	2.00%	TBD	TBD	TBD	TBD	TBD

1 - Corporate Exempt & Manitoba Hydro Professional Engineers Association employees' pay increase in 2020 was effective March 19, 2020.

2 - UNIFOR contracted wage settlements are effective the beginning of each pay period preceding January 1st.

3 - General wage increases awarded by the Manitoba Labour Board on August 4, 2021.

4 - General wage increases awarded by an arbitrator on January 30, 2023.

5 - Corporate Exempt and Manitoba Hydro Professional Engineers Association employees received a 1.5% increase, effective January 1, 2023 which was announced on December 7, 2022.

REFERENCE:

MFR 51 & 52 Operating Expenses Compensation Assumptions

PREAMBLE TO IR (IF ANY):

Of the date of this filing, there are still unknown salary impacts for half of Manitoba Hydro's workforce. Manitoba Hydro has not yet concluded a collective agreement with IBEW Local 2034 for calendar year 2022 and beyond. That union represents approximately 45% of Manitoba Hydro's employees. Additionally, while Manitoba Hydro and Unifor Local 681 ratified an agreement in August 2022 for a duration of four years retroactive to December 24, 2020, the general wage increases for the first two years of the agreement will be determined by an arbitrator. That hearing is set for late November 2022, and it may take several months for a decision to be rendered. For budget purposes only, the 2023/24 and 2024/25 Preliminary Budgets include assumptions for general wage increases based on increases provided to other bargaining units, recognizing that increases for each employee group will likely differ and may be higher or lower than others based on a number of factors.

MH has indicated total wages & salaries, overtime & benefits of $666.3 million in 2021/22, $673.9 million in 2022/23, $706.1 million in 2023/24 and $737.3 million in 2024/25.

QUESTION:

a) Provide an update on the status of collective bargaining with Manitoba Hydro's labour bargaining units

b) Please indicate the detail of the actual and forecast changes in compensation expense, including the portion of the increases in both dollars and percentage related to headcount changes, economic increases, step in scale increases, strike costs, in each of the years 2021/22, 2022/23, 2023/24 and 2024/25.

c) Please indicate the outcome of the arbitration and the impact on operating expenses when known.

RESPONSE:

a) Manitoba Hydro's workforce is comprised of approximately 80% unionized employees via four unions. Currently the collective agreement with Manitoba Hydro's largest union, the International Brotherhood of Electrical Workers Local 2034 (IBEW), has expired. These employees make up approximately 45% of the Corporation's workforce and are primarily electrical field workers. On January 9, 2023, IBEW received a strike mandate from its members and the corporation is currently discussing next steps with the union. IBEW previously went on strike for 60 days from March 9, 2021, until May 10, 2021.

While a new four-year collective agreement expiring near the end of 2024 was concluded in August of 2022 with Unifor, Manitoba Hydro's gas union, general wage increases for 2021 and 2022 were the subject of an arbitration hearing held on November 26, 2022. On January 30, 2023, the arbitrator's award was released and Unifor members were awarded general wages increases of 1.5% effective December 24, 2020 (year 1 of the agreement) and 1.75% effective December 23, 2021 (year 2 of the agreement).

Collective agreements with both CUPE and AMHSSE are in place until the end of 2024 and 2025 respectively.

b) Please see the response to PUB/MH I-78 a) which provides the requested information based on FTEs. Please note that Manitoba Hydro does not do headcount reporting or budgeting.

c) Please see the response to part a).

REFERENCE:

Appendix 9.7

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please populate and revise/correct as required the following compensation analysis for each of the years 2021/22 through 2024/25. The Schedule is also provided in Microsoft Excel.

Corporate Annual Compensation Changes - Corporate Total

Line No.		2020/21A	2021/22A	Change	%	2021/22A	2022/23FB	Change	%
1	*(C$000s, except where noted)*								
2	Gross Salaries	440,808	448,464	7,656		440,808	458,838	18,030	
3	Vacancy Allowance	-	-	-		-	-	-	
4	Total Net Salaries - Normal Operations	440,808	448,464	7,656	1.7%	440,808	458,838	18,030	4.00%
5	Salaries - Other Initiatives	-	-	-		-	-	-	
6	Overtime	58,423	63,139	4,716		63,139	62,839	(500)	
7	Benefits	176,121	154,625	(21,496)		154,625	152,528	(2,097)	
8	H&E Tax	11,000	11,000	-		11,000	11,000	-	
9		245,544	228,764	(16,780)	-7%	228,764	226,167	(2,597)	-1%
10	Total Compensation	686,352	677,228	(9,124)	-1.3%	669,572	685,005	15,433	2.30%
11	Total Compensation Increase Analysis		2022/23FB	Change			2022/23FB	Change	
12	Prior Year Balance (Total Salaries - Normal Operations)			440,808				440,808	
13	Change in vacancy Allowance								
14	FTE Normal Operation Additions / Changes (2021/22)								
15	FTE Normal Operation Additions / Changes (2022/23)								
16	FTE Normal Operation Reductions / Changes (2023/24)								
17	FTE Normal Operation Reductions / Changes (2024/25)								
18	Economic - Inscope		0.00%				0.00%		
19	Economic - Out of Scope		0.00%				0.00%		
20	Steps in scale		0.00%				0.00%		
21	Salaries - Recovery								
22	Market Salary Impacts								
23	Other Salary Acct adjustments								
24	Other adjustments / Rounding								
25	Total Net Salaries - Normal Operations			448,464				458,838	
26	Prior Year Balance (Initiative Salaries, Overtime, Benefits and H&E Tax)			245,544				228,764	
27	Salaries - Improvement Initiatives			-				-	
28	Overtime			4,716				(500)	
29	Benefits			(21,496)				(2,097)	
30	H&E Tax			-				-	
31	Total Compensation			677,228				685,005	

b) Please explain the variance in employee benefits in 2021/22 versus 2020/21.

c) Please provide a similar but separate analysis for employee-related costs.

RESPONSE:

a) Please see the following table with a breakdown of the components making up the changes to Manitoba Hydro's wages and salaries. Manitoba Hydro has used terminology in the table below consistent with that used by Manitoba Hydro through the rest of the Application, with the intention that it provides the same information being asked in this request. Manitoba Hydro has separately provided the requested information in Excel format to the PUB and Registered Interveners.

Please note that the information for 2021/22 is based on approximations as Manitoba Hydro's system is not designed to analyze payroll changes to account for general wage increase ("GWI") and merit/progression separately, which is further complicated as employees move through different pay scales/unions resulting for a change in job classification.

Please also note that the negative amount in 2021/22 related to "GWI for Previous Years - IBEW" in the table below is related to a provision included in 2020/21 to account for back pay anticipated (and accrued for) following the 60-day strike by the IBEW union jurisdiction that was before the Manitoba Labour Board, as described in PUB/MH I-73 a.

Wages & Salaries Analysis (2020/21 to 2024/25)

	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Gross Wages & Salaries	440,808	448,464	508,482	554,490	569,166
Vacancy Allowance	-	-	(49,679)	(71,652)	(64,157)
Wages & Salaries	**440,808**	**448,464**	**458,803**	**482,838**	**505,009**
Wages & Salaries Analysis:					
Prior Year Balance		440,808	448,464	458,803	482,838
GWI for Previous Years - IBEW		(3,471)			
Merit/Progression		4,942	6,121	5,958	6,764
GWI and Provisions for GWI		4,835	-	5,724	7,593
Change in Vacancy Allowance		-	(49,679)	(21,972)	7,495
FTE Normal Operating Changes & Other		1,349	53,897	34,326	319
Wages & Salaries	**440,808**	**448,464**	**458,803**	**482,838**	**505,009**

b) Please see Coalition/MH I-81 for a detailed explanation on the change in employee benefits.

c) Please see Coalition/MH I-82b&c for a breakdown of employee related costs.

11

REFERENCE:

MFR 48, Tab 3 Figure 3.4, Appendix 9.7

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please provide a similar analysis as that provided in MFR 48 on a cost element and business unit basis comparing the 2022/23 forecast provided in this Application with that presented in the 2021/22 interim rate application.
b) Provide a detailed comparison of external services and materials by cost element.
c) Please provide a detailed comparison of 2023/24 preliminary budget of OM&A with 2022/23 Forecast on a cost element and business unit basis and explain the increases.

RESPONSE:

Manitoba Hydro believes the reference for this question should be Appendix 9.8 of the Application, which provides details of Manitoba Hydro's O&A expenses.

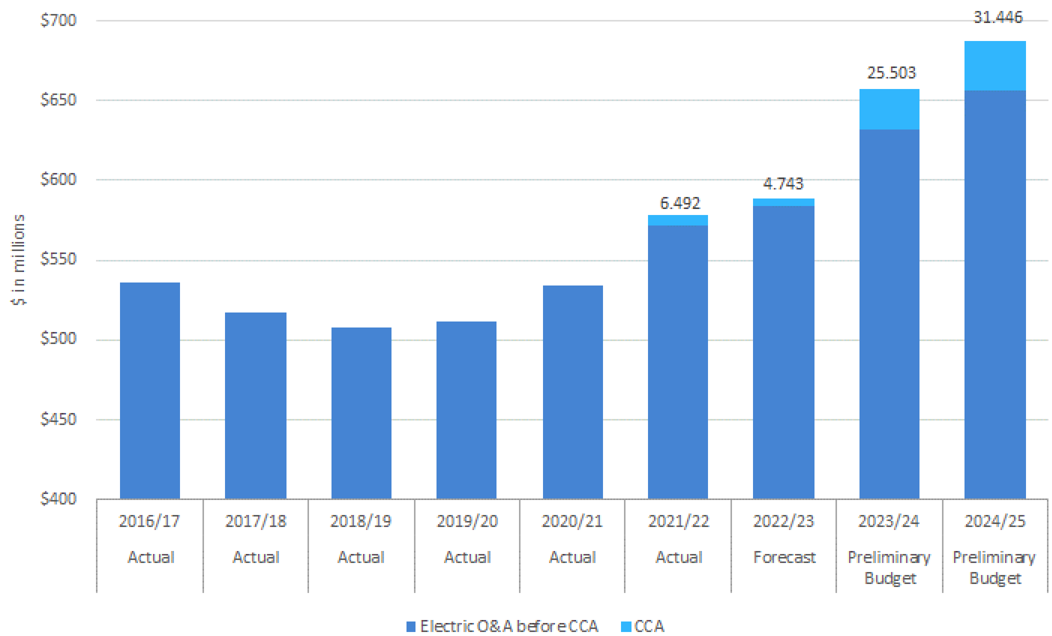
a) Please see the response to PUB/MH I-79 b) for the requested information.

b) Please see Figure 1 for a detailed comparison of external services and materials by cost element for the same periods as Appendix 9.8 of this Application.

Figure 1. External Services and Materials by Cost Element (2012/13 to 2024/25)

(C$000s unless otherwise stated)	2012/13 Actual	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	Compound Annual Growth 2012/13-2021/22	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget	Compound Annual Growth 2021/22-2024/25
Materials & Tools	24 827	27 939	24 723	26 264	25 389	24 451	27 040	29 133	30 067	34 740	3.8%	31 665	33 696	34 801	0.10%
Consulting & Professional Fees	10 817	14 657	16 154	15 311	15 840	10 746	12 986	12 639	9 694	15 409	4.0%	25 050	47 809	50 564	48.60%
Construction & Maintenance Services	16 392	16 944	17 969	16 991	16 821	18 904	21 712	22 500	20 493	23 524	4.1%	29 926	33 642	35 056	14.20%
Building & Property Costs	26 781	30 022	30 427	29 193	29 039	30 211	30 668	29 069	31 543	35 622	3.2%	34 233	37 615	38 673	2.80%
Equipment Maintenance & Rentals	14 680	15 007	17 118	18 750	18 734	19 142	19 581	20 213	19 425	21 302	4.2%	20 771	23 446	24 079	4.20%
Consumer Services	5 050	5 277	5 189	5 255	5 236	5 452	5 402	6 822	6 647	7 673	4.8%	7 945	7 973	8 078	1.70%
Customer & Public Relations	2 382	1 964	2 223	2 304	2 227	1 716	1 399	1 452	847	1 097	-8.3%	1 651	2 018	2 078	23.70%
Sponsored Memberships	1 767	1 249	1 550	1 703	1 677	1 651	1 729	1 760	1 681	1 631	-0.9%	1 770	1 920	1 921	5.60%
Computer Services	849	678	967	1 152	967	817	1 014	1 939	3 096	6 675	25.8%	8 298	12 362	15 230	31.70%
Communication Systems	1 817	1 963	1 705	1 736	1 668	1 699	1 270	1 465	1 528	1 634	-1.2%	1 771	1 830	1 673	0.80%
Research & Development Costs	3 372	2 195	2 534	2 903	2 355	1 985	1 763	2 040	1 688	2 209	-4.6%	2 333	2 333	2 333	1.80%
Administrative Services	5 539	5 517	6 293	6 149	6 071	6 068	5 774	6 099	5 712	7 083	2.8%	6 557	6 519	6 527	-2.70%
External services and materials	**$ 114 274**	**$ 123 412**	**$ 126 850**	**$ 127 711**	**$ 126 024**	**$ 122 843**	**$ 130 338**	**$ 135 132**	**$ 132 421**	**$ 158 598**	3.7%	**$ 171 968**	**$ 211 162**	**$ 221 014**	11.70%

Figure 6.18 O&A costs with CCA identified as an incremental cost in O&A



6.6.1 Why is Manitoba Hydro moving to the Cloud?

Manitoba Hydro is not alone in making the transition to CCA. While utilities have generally lagged broader industry in adopting cloud-based services, the shift is now well underway. In a 2021 end-user cloud study led by Gartner, 71% of utility respondents cited that their organizations will increase their cloud spend over the next 12 months. Gartner (2021) also found that utility respondents reported the top outcomes achieved by adopting cloud included improved productivity, improved efficiency, cost optimization, and enabled digital business strategy[2].

There are three main reasons that Manitoba Hydro is moving to the Cloud: 1) cyber security risk mitigation; 2) Cloud enables continuous evaluation and process improvement; and 3) cost avoidance.

[2] Cloud End-User Buying Behavior Study: Utilities
Ethan Louis Cohen
Gartner, 2021

ITS Infrastructure Services Benchmarking Engagement Executive Summary

11 April 2018

Prepared for: Manitoba Hydro

Project Number: 330045057 Version #3

GARTNER CONSULTING

Gartner®

1. The IT Service Desk is inefficient and provides poor service.

- IT Service Desk costs are 29% higher than peers driven primarily by higher personnel costs.
- IT Service Desk staffing levels are 37% greater than peers while call volumes, user satisfaction and first contact resolution are low, and abandon rates are very high.
- End-User Computing staffing levels are 24% greater than peers.
- IT Service Desk unit costs for service are about twice as high as commonly quoted by service providers.
- The IT Service Desk has significant staffing, skills and process gaps that inhibit the efficiency and quality of service that is provided.
- The number of Contacts per User is half that of peers, because users are avoiding the Service Desk and finding informal support elsewhere.
- Executives are rarely exposed to the IT Service Desk because they have their own dedicated technical support staff and receive excellent service when they encounter technical issues.

IT Service Desk costs are 37% higher than peers

	Manitoba Hydro	Peer Avg	Variance	% Variance
End-User Services				
End-User Computing	$11,774	$10,485	$1,289	12%
IT Service Desk	$1,292	$1,003	$289	29%
Total	$13,065	$11,488	$1,578	14%

Higher IT Service Desk costs are driven by higher Personnel costs

	Manitoba Hydro	Peer Avg	Variance	% Variance
End-User Services				
End-User Computing	43.9	35.3	8.5	24%
IT Service Desk	11.7	8.5	3.1	37%
Total	55.5	43.9	11.7	27%

Comparison to Peer
> 20% Lower
0 to 20% Lower
> 0 to 20% Higher
> 20% Higher

Gartner

2. The Data Centre infrastructure is aging and underinvested, which may be exposing Manitoba Hydro to operational risks.

- While staffing levels overall are only 5% greater than the peers, it is unevenly distributed across the different functional areas.
  – Staffing levels for Unix & Linux, Storage and Data Networking are all less than the 25th percentile for the peer group. This may represent a risk to the organization due to under-staffing (longer time to restore services, lower levels of service, and even potential security risks).
  – Windows staffing is high in comparison to the peers.
- There are skills gaps present in the organization as a result of the VDP (especially acute in Data Networks).
- Renewal of aging infrastructure has been delayed past the deadlines defined by ITS ever-greening policies largely due to issues with procurement.
- There are no service-level agreements or objectives defined or tracked, which makes it difficult to judge the quality of service being provided.
- IT Service Continuity / Disaster Recovery plans are in place but there is a disconnect between IT DR and business continuity planning.

Data Networking costs are 49% lower and Data Centre costs are 20% lower than peers

	Manitoba Hydro	Peer Avg	Variance	% Variance
Data Center				
Unix & Linux	$2,429	$4,369	-$1,940	-44%
Windows	$4,578	$4,209	$369	9%
Storage	$2,907	$3,812	-$905	-24%
Colo	$404	$373	$31	8%
Total	$10,318	$12,763	-$2,445	-19%
Data Networking				
Data Networking	$3,196	$6,005	-$2,810	-47%
Total	$3,196	$6,005	-$2,810	-47%

Staffing is uneven across the different functional areas

	Manitoba Hydro	Peer Avg	Variance	% Variance
Data Center				
Unix & Linux	11.1	14.4	-3.4	-23%
Windows	25.9	17.1	8.8	52%
Storage	4.6	7.0	-2.5	-35%
Total	41.5	38.6	3.0	8%
Data Networking				
Data Networking	9.2	18.9	-9.6	-51%
Total	9.2	18.9	-9.6	-51%

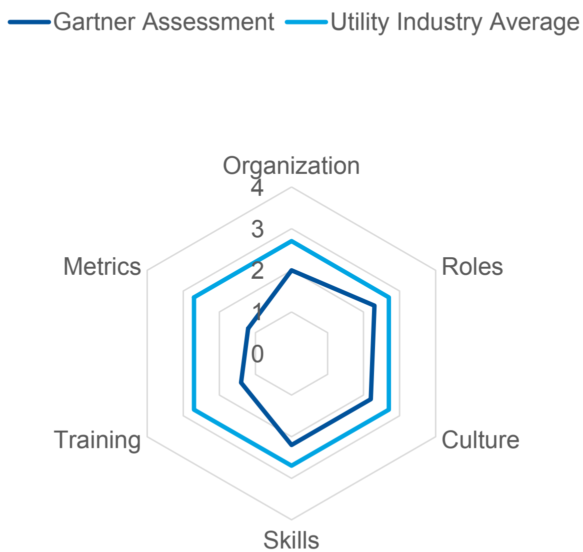
Comparison to Peer
> 20% Lower
0 to 20% Lower
> 0 to 20% Higher
> 20% Higher

Gartner

3. ITS Infrastructure has gaps in its ability to develop staff and evolve the organization.

- ITS Infrastructure has 5.0 FTEs more than what the peer groups would require to support the same workload, however, there are staffing gaps present in the Data Centre and Data Networking functions as a result of the VDP.
- The IT Service Desk has significant skills gaps and staffing constraints.
- The existing training and development capabilities are likely insufficient to close these gaps.
  - ITS training and development of staff is opportunistic and largely done 'on the job.'
  - Measurement of staff development and performance management are immature and vary across functions in the ITS Infrastructure department.
- The functionally siloed organizational approach is consistent with other functionally structured organizations but lacks the agility that business and ITS stakeholders are likely to demand in the future.

Gartner ITScore I&O People Discipline Results



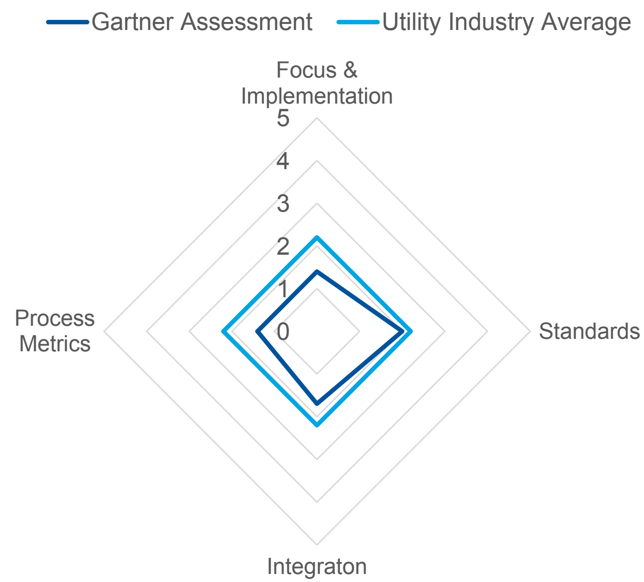
Gartner's IT Score assessment of the People attribute shows an overall maturity at level of 1.8, which is well below the average for organizations in the Energy and Utilities Industry (2.7).

Gartner

4. ITS Infrastructure processes are relatively immature compared to peers.

- The organization is so busy doing the work that there is little capability for process improvement.
- Process improvement will continue to be a challenge in the absence of a broader measurement discipline and tools that can help measure and improve processes.
- Process management is immature and there is little sustained focus on defining, documenting and updating IT processes.
- There are some standard processes defined but standards do not exist for all processes across the department.
- Processes are largely constrained to individual functions and process metrics are not consistently captured or acted upon.
- IT asset management processes are immature, representing a missed opportunity for gaining efficiencies and reducing cost
- Procurement processes are not defined and a vendor management discipline is just emerging.

Gartner ITScore I&O Process Discipline Results



Gartner's IT Score assessment of the Process attribute shows an overall maturity at level of 1.6, which is well below the average for organizations in the Energy and Utilities Industry (2.2).

Gartner.

Gartner has identified seven key recommendations ITS Infrastructure to address these shortcomings.

Key Recommendations	Objectives
R1 **Mature vendor management capabilities.**	▪ Obtain higher service levels and optimize costs through enhanced vendor management and relationships. ▪ Enable successful implementation of the outsourcing initiative defined in recommendation R3.
R2 **Establish a process improvement program within the ITS Infrastructure group.**	▪ Improve service quality and improve process efficiency. ▪ Create opportunities for automation and free resources to tackle more business-critical tasks.
R3 **Outsource IT Service Desk with the option to transition End User Computing next followed by other towers over time.**	▪ Improve service quality and benefit from provider best practices and minimize ambiguity around escalations. ▪ Reduce the number of dispatched incidents and therefore the workload for IT field staff.
R4 **Mature IT asset management including procurement capabilities.**	▪ Better manage IT assets, optimize costs and spending ▪ Enable efficient ever greening of infrastructure assets.
R5 **Address existing skills gaps and build a talent pipeline.**	▪ Bridge the skills gaps that currently exist due to VDP departures. ▪ Create a talent pipeline for the future.
R6 **Implement a Service Portfolio and Service Catalogue for ITS Infrastructure.**	▪ Define and communicate the services and value that ITS Infrastructure offers. ▪ Increase rigor with respect to service offerings and service levels.
R7 **Organize ITS Infrastructure for success and evolve the organizational structure incrementally.**	▪ Implement an organization structure which will enable increased agility, service quality and efficiency in the long term

Gartner

12

REFERENCE:

PUB/MH I-28a-e

PREAMBLE TO IR (IF ANY):

Manitoba Hydro is requesting PUB approval to establish a regulatory deferral for SAP S/4HANA CCA to smooth the impact of rate increases resulting from the increase in operating expenses of $156 million pertaining to this one-time significant investment.

Manitoba Hydro is still evaluating alternatives for SAP S/4HANA, which could impact the in-service assumption for this deferral which could advance the commencement of amortization.

At this time Manitoba Hydro is in the pre-planning phase (Phase 0, which includes education, readiness assessment and business case) and has not made recommendations on implementation of SAP S/4HANA with respect to cloud computing arrangements (SaaS, PaaS, IaaS).

QUESTION:

a) Please file the needs analysis, readiness assessment and business case, including any quantitative Cash flow NPV analysis.
b) Please file the detailed cost estimate in support of the SAP CCA implementation.
c) Please provide the preliminary project timeline.
d) Please indicate to what extent MH has assessed its internal capabilities and IT maturity to undertake this IT initiative and whether it has engaged a consultant to assist in the planning process. If so, please provide a copy of any contracts entered into or analysis undertaken by the Corporation or on its behalf, and any work product or reports.

RESPONSE:

a) Manitoba Hydro is currently in Phase 0 (pre-planning) of the SAP S/4HANA Project. The final deliverables of this phase include a readiness assessment and business case for SAP S4/HANA. As noted in Tab 6 of Manitoba Hydro's Application, Manitoba Hydro's current version of SAP ECC will not be supported beyond 2027 and as such Manitoba Hydro included forecasted costs for its replacement with SAP S/4HANA in its long-term financial forecast scenario. The final decision around adoption of SAP S/4HANA Cloud will not be made until after completion of the business case and readiness assessment.

b) Please refer to GSS-GSM/MH I-6 b) and c).

c) As Manitoba Hydro is still in Phase 0 (pre-planning), project timelines have not been confirmed. At the conclusion of this phase, additional work will be done to create the project timelines based on the readiness assessment and business case.

d) Phase 0 (pre-planning) includes a readiness assessment which will be provided as one of the final deliverables for this phase. Manitoba Hydro has engaged the services of Ernst & Young to assist in Phase 0.

Please see the attachment for the Statement of Work.

Building a better working world

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Manitoba Hydro
SCM - Procurement Operations Department
Floor #2 - 360 Portage Avenue
Winnipeg MB, R3C 0G8
Attn: Ian Fish & Ryan McCormack

Statement of Work - SAP Phase Zero

Dear Ian Fish & Ryan McCormack,

This Statement of Work, dated November 7, 2022 (this "SOW"), is made by the Canadian firm of Ernst & Young LLP ("we" or "EV") and Manitoba Hydro ("you", "Client" or "Manitoba Hydro") pursuant to the Agreement, dated November 3, 2022 (the "Agreement"), between EV and Client.

Except as otherwise set forth in this SOW, this SOW incorporates by reference, and is deemed to be a part of, the Agreement. The additional terms and conditions of this SOW shall apply only to the advisory Services covered by this SOW and not to Services covered by any other Statement of Work pursuant to the Agreement. Capitalized terms used, but not otherwise defined, in this SOW shall have the meanings in the Agreement. For the purposes of this SOW, references in the Agreement to "you", "Client", "we" or "EV" shall be deemed to be references to those terms as they are defined above.

1 Project Background

The primary objectives of this project are to:

- Perform system analysis of Manitoba's SAP ECC, which will provide technical input to the migration to SAP S/4HANA
- Conduct a fit/gap assessment and document all future state processes (L3) by process area (L2) and end-to-end scenario group (LI)
- Conduct a data readiness assessment, resulting in a documented data strategy, reporting & analytics strategy, and data conversion strategy for the migration to SAP S/4HANA & SuccessFactors
- Perform a technical assessment which includes target state SAP architecture, IT target operating model and the proposed migration path to SAP S/4HANA & SuccessFactors
- Conduct SAP Security, SAP Governance, Risk and Compliance module (SAP GRC) and Internal Controls readiness assessment, resulting in documentation of SAP security, SAP GRC, and Internal Controls strategy and GRC roadmap for a compliant migration to SAP S/4 HANA, Ariba and SuccessFactors
- Conduct benchmarking and a business case assessment which will list business improvement opportunities as well as financial cost and benefit analysis
- Complete a change and business readiness assessment to document governance, as well as change management impacts, roadmap, and communication strategy

- Document program plans for the implementation roadmap, including Manitoba Hydro resource requirements, project readiness and roadmap

2 Scope of Services

At a high level, the scope of services for this SOW is prepare Manitoba Hydro for an S/4HANA transformation program which will be business-driven and technology-enabled aligned with Manitoba Hydro's long term strategic vision.

The SAP applications and/or modules that will be in the scope of this Project are as follows:

- SAP S/4HANA, which includes, but is not limited to, the following functionality:
  - Finance
  - Enterprise Asset Management
  - Supply Chain & Procurement
  - Maintenance
  - Order-to-Cash
- S/4HANA for Utilities (which is activated on SAP S/4HANA), which includes, but is not limited to, the following functionality:
  - Device Management, including Work Asset Management and integration with Field Service Management
  - Customer Service
  - Billing & Invoicing
  - Enterprise Asset Management
  - Finance and Contract Accounting
- SuccessFactors, including Human Capital Management
- Ariba
- SAP Analytics Cloud (SAC)
- Group Reporting
- SAP Data Warehouse
- SAP Security, SAP GRC, and Internal Controls

2.1 Work Package 1: Systems Analysis

EY's proprietary ReSQ tool will analyse the custom code in ECC. The team will then summarize what code is being used, what code is no longer required (based on the target future-state solution or based on enhanced S/4HANA functionality), what code needs to be remediated, what code can be automatically remediated, and generally what the migration effort looks like for the code. We will also conduct a general technical assessment for migration to S/4HANA and summarize the required activities.

The systems analysis will consist of:

- Analysis of custom code in the existing SAP ECC system and identify what will need to be remediated moving to 5/4
- Code quality and vulnerability check
- Analysis of system performance
- Producing key deliverables outlined in Section 5.1

2.2 Work Package 2: Fit/ Gap Assessment

The fit/gap work package will conduct a fit-to-standard and gap analysis during which Manitoba Hydro's business processes and requirements will be evaluated against SAP S/4HANA CIS and core ERP standard functionalities.

The fit/gap assessment will consist of:

- Team will assess current state documentation provided by Manitoba Hydro as an input to the current state assessment workshops.
- Conduct fit/gap workshops using the PUMMA framework and formalize a high-level business process hierarchy (BPH) L2 and L3 as defined in Appendix D. Define opportunities for improvement. Conduct maturity assessment. Define process redesign.
- Assess impact of converting to business partner. Identify mandatory and other relevant, high-impact S/4HANA simplifications.
- Assess system landscape, integration points and technical architecture
- Security assessment component of this work package consists of:
    - SAP Security - Provide the optimal deployment approach and strategy for SAP security across all in-scope SAP applications, which includes future state security requirements, including enterprise security, identity access management requirements, **single sign-on** (550) on requirements and other SAP Cyber Security requirements for the organization
    - SAP GRC - Determine future state SAP GRC requirements for the organization and outline a roadmap. We will focus upon SAP GRC specific modules: Access Controls, Process Controls, Risk Management, Enterprise Threat Detection, and Fraud Management
    - Internal Controls - Provide an Internal Controls approach across all in scope SAP applications, which includes regulatory compliance requirements and SAP Project Internal Controls requirements within the SAP program
    - Operational control requirements, once the SAP system is operational: focus areas include business processes, IT General Controls, application security and Interfaces/customizations
- Producing key deliverables outlined in Section 5.1

2.3 Work Package 3: Data Readiness

Manitoba Hydro requires a finalized data strategy - leading practices, facilitated workshops, and alignment on the approach. This work package will also produce a conversion strategy and a reporting/analytics strategy.

A good data strategy as well as fit-for-purpose data is a foundational pre-requisite element for Manitoba Hydro's transformation program. This work package will also review and assess data readiness for the S/4HANA migration project through data checks & validation (nomenclatures, standardization, de duplications, missing data etc.) to establish data quality baseline, identify gaps and propose data standards and rules for key data attributes. WP3 will uncover any data issues from a conformity, harmonization, and standard perspective for the in-scope data objects.

All of Manitoba Hydro's Data is important and as a part of this Work Package, EV would assess critical data objects which have been listed below.

The data readiness assessment will consist of:

- Conducting strategy and approach sessions, assess current-state data (e.g., sources, quality) on following in-scope data objects in the functional workshops:
    - SAP BP Customer
    - SAP BP Vendor
    - SAP FI: PC, CC, GL & Fixed Assets
    - SAP Materials Master
    - SAP PM: Equipment Master, BOM, Maintenance Task List, Item and Plan
    - CIS Business Master Data (Business Partner, Contract Account, MoveIN)
    - CIS Technical Master Data (Connection Object, Premise, Device Location, Installation)
    - CIS SecurityDepositPayment_PAYMENT
    - HTR Organizational Structure Data
    - HTR Employee Master Data
    - HTR Benefits Data
    - HTR Payroll Data
    - HTR Time Data
- Extract data from in-scope data sources (SAP ECC and Banner CIS) for in-scope data objects to allow analysis, and assessment.
- Define 'active' data relevant for business operations, recommend standard technical and business rules for profiling, and perform data checks & validations of key attributes using pre-defined templates & accelerators:
    - Data counts (Active/Inactive)
    - Duplicates analysis (Match, Merge, De-duplication)
    - Data format checks (special characters, upper/lower case etc.)
    - Data standardization (Abbr., terms)
    - Field length analysis
    - Address data standardization
    - Missing data
- Summarize findings on data readiness, identify data gaps as part of data maturity assessment/readiness summary.
- Finalize the data object master list and data conversion/migration document.
- Data archiving recommendations and best practices including compliance (for the future state sustainment) will be included as part of the data maturity assessment report based on the data gaps identified during the data/functional workshops.
- Producing key deliverables outlined in Section 5.1

2.4 Work Package 4: Technology Assessment

A key factor is to promote a better alignment to the business strategies through the new CIS & ERP implementation is the correct identification of the application architectural and migration paths.

This technology assessment offers methodology and tools to identify the right Manitoba Hydro SAP transformation path and target architecture.

The technology assessment will consist of:

- Review of current state enterprise architecture
- Defining the high-level IT Target Operating Model
- Identify and evaluate the migration path options for brownfield vs greenfield and cloud option
- Review reporting technological approaches
- Draft the recommended migration, cloud reporting and integration strategies for the move to S/4HANA that is aligned to the strategic objectives
- EV in collaboration with SAP will identify the hardware, hosting and licensing requirements
- Producing key deliverables outlined in Section 5.1

2.5 Work Package 5: Value Assessment - Business Case

The Case for Change workstream will create a bottom-up business case for an SAP enabled business transformation and define the target state solution to enable the capabilities (business, process, and technology) required to realize the business transformation.

The Value Assessment - Business Case will consist of:

- Leverage EV Drive accelerators
- Conduct process benchmarking of key business processes
- Conduct business improvement workshops and identify value opportunities
- Review fit/gap analysis per work package #2 and solution roadmaps
- Identify cost benefit for business improvement value opportunities
- Create cost and benefit business case value summary
- Socialize and align on business case value summary
- Producing key deliverables outlined in Section 5.1

2.6 Work Package 6: Change and Business Readiness

The main goal of this work package is to create the path for the Manitoba Hydro project team to successfully fulfil its obligations and objectives during the entire project. This means identifying within the Manitoba Hydro project team the appropriate change, communications, and training resources to support the change as well as potential advocates from the business. It also means equipping and upskilling the leaders on how they can become advocates for change and support their teams through the transformation journey.

In terms of transformation readiness, the team will assess the impact of the transformation on stakeholders and identify what will be required to support and enable people readiness - from the perspective of new ways of working, behaviours, digital skillsets, and new capabilities based on future state roles. Assess and determine leadership capabilities, future state culture and behaviours required to drive transformation. Develop change roadmap to address and deliver against the above objectives.

The change and business readiness will consist of:

- Define critical capabilities and establish project readiness scorecard
- Assess governance and define roles and responsibilities
- Define the governance model and identify who will be part of the team
- Identify IT skills and knowledge gaps based on target state technology roadmap
- Develop plan that outlines the steps necessary to be ready to start the implementation project
- Align on OCM roles and responsibilities
- Develop OCM governance structure
- Develop the case for change
- Identify high-medium impacted stakeholders
- Assess levels of support and advocacy by key leaders and stakeholders
- Understand impacts to each stakeholder group
- Document change impacts and identify high level mitigation strategies
- Educate leaders on change sponsorship
- Develop change management roadmap
- Identify RACI for OCM team to support the transformation
- Producing key deliverables outlined in Section 5.1

2.7 Work Package 7: Program Planning and Implementation Roadmap

The program planning work package starts with the deployment approach and implementation strategy exercise using a proprietary tool and facilitated sessions to determine the optimal plan for the migration program. The team will produce a detailed roadmap (approach, timeline, what requirements are tagged to what deployments, and what effort is required for each deployment). The team will produce a detailed resource plan with required time committed by Manitoba Hydro resource. We will help Manitoba Hydro start tagging people/resources, determining coverage strategies, and hiring any required team members. The team will review all of this in targeted alignment sessions and share a perspective on Manitoba Hydro's readiness for the program (and required outstanding activities).

The program planning and implementation roadmap will consist of:

- Select the optimal deployment approach and implementation strategy for the S/4HANA program across Manitoba Hydro (scope, risks, considerations - proprietary exercise)

- Produce a roadmap that showcases the deployment approach, the timeline, and how the scope and effort are spread across the months
- Produce a detailed resource requirements plan for Manitoba Hydro - including skill set required, key activities by phase, time commitment required by week for each resource
- Conduct alignment sessions to walk all stakeholders and team members through the deployment approach, roadmap, plan, and resource requirements
- Provide a perspective on readiness for the S/4HANA program and any gaps (governance, resources, tools, capabilities, etc.) that need to be closed leading up to the full migration program
- Provide an Internal Controls approach across all in scope SAP applications, which includes leading practice and regulatory compliance requirements, SAP Project Internal Controls requirements within the SAP program, as well as focus areas such as security requirements that pertain to data conversion and the software development lifecycle
- Operational control requirements, once the SAP system is operational. Focus areas include business processes, IT General Controls, application security and Interfaces/customizations
- Producing key deliverables outlined in Section 5.1

3 Out of Scope Activities

Below is a list of noteworthy out-of-scope activities. For further clarity, items that are not specifically identified in the "Scope of Services" above shall be out of scope, including, but not limited to the following list below. If requested by Manitoba Hydro to add additional Scope of Services, both parties mutually agree to work together, each acting reasonably, to minimize the impact to cost, schedule and risk to the project. In all cases both parties agree to follow the Change Control Procedures outlined in Appendix A.

The following activities are Out of Scope of this Phase Zero assessment:

- EV completing business blueprinting or detailed design (e.g., business process, functional specifications, configuration documents) or implementation activities (building the SAP S/4 solution, testing the SAP S/4 system, training the Manitoba Hydro team members on S/4, decommissioning any legacy systems)
- Developing Standard Operating Procedures or User Guide documentation.
- Identifying, addressing, or correcting any errors or defects in your computer systems, other devices, or components thereof ("Systems"), whether or not due to imprecise or ambiguous entry, storage, interpretation, or processing or reporting of data. Defect or problem arising out of or related to data processing in any Systems are out of scope.
- EY's assessment would be limited to providing recommendations based on industry leading practices to Manitoba Hydro. However, the actual restructuring or redesign of Manitoba Hydro's organization to achieve project objectives is not part of EY's scope.
- The assessment is limited to in-scope data objects listed under Work Package 3: Data Readiness Assessment.
- Extensive data profiling & cleansing, which includes fixing data issues or constructing data.
- Evaluating non-SAP data lake and reporting capabilities
- Developing and performing a detail training analysis assessment

4 Intellectual Property

In providing the aforementioned services, EV will utilize the ReSQ (the "Tool"), which we have developed, based on our professional experience and industry leading practices, to identify custom code in Manitoba Hydro's SAP systems. For the custom development objects which are identified, the Tool will identify compatibility issues with the new SAP S/4 system and the appropriate remediation actions (e.g., manual code changes are required vs. automatic remediation through the Tool).

The Tool is confidential and proprietary to EV. Manitoba Hydro acknowledges that the Tool is provided "as is" and that neither EV nor any other party involved in the creation, production, or delivery of the Tool makes any warranties, express or implied, with respect to any thereof, including, without limitation, any implied warranty of title, merchantability or fitness for any particular purpose or use, or any warranty that the operation of the Tool will be uninterrupted, error free or that it will be or remain compatible with any of Manitoba Hydro's hardware or software. Manitoba Hydro will not disclose the Tool or any portion thereof to any third party, reproduce it or use it other than as permitted by this SOW.

5 Work Approach: Phase Zero Methodology

EV will execute seven work packages phases as part of this project:

- System Analysis
- Fit/ Gap Assessment
- Data Readiness
- Technology Assessment
- Value Assessment - Business Case
- Change and Business Readiness
- Program Planning and Implementation Roadmap

5.1 Phase Zero Service Products (deliverables)

The table below details key project deliverables and description.

Manitoba Hydro will have five (5) business days (the "Acceptance Period") to determine whether a deliverable requiring acceptance and sign-off by Manitoba Hydro materially conforms to the applicable specifications as developed in accordance with this SOW. If Manitoba Hydro does not accept or reject in writing during the Acceptance Period, the deliverable shall be deemed accepted by Manitoba Hydro. If Manitoba Hydro rejects a deliverable, Manitoba Hydro shall clearly state the specific defect in writing to EV. Manitoba Hydro acceptance of a deliverable shall not be unreasonably withheld. If a deliverable cannot be reviewed within the Acceptance Period because the approver is involved in a critical business activity (e.g., quarter end, union discussions), this impact will be escalated through the project governance channels, the parties will mutually agree on the Acceptance Period extension, and any associated timeline impacts.

Key deliverable by	Description/ Acceptance Criteria

Work Package	
WPI: System Analysis	
Technical Assessment Report	Assessment report consists of: • Custom Code Analysis for SAP ECC system • S/4HANA simplification recommendations • SAP data dictionary updates • SAP HANA Database recommendations • SAP performance optimization suggestions • SAP RICEFW classifications
WP2: Fit/ Gap Assessment	
Business Process Hierarchy (BPH)	Business process hierarchy (BPH): The BPH lists all future-state processes (L3) by process area (L2) and end-to-end scenario group (L1). The target state process list will refer to current state processes and the document will describe recommended changes from current to target state. Business process hierarchy (BPH) levels are defined in Appendix D.
Fit Gap and S/4HANA Impact Summary	Fit-gap and S/4HANA impact summary: This report summarizes the fit-gap assessment by stream, and is used to socialize findings and recommendations with stakeholders
SAP Security, SAP GRC, and Internal Controls strategy	Strategy document explaining the approach for implementation of compliant SAP security, SAP GRC, and Internal Controls as part of the S/4 migration
WP3: Data Readiness	
Data Object Master List	A document that lists the in-scope data objects by workstream including attributes such as conversion method and whether the data is to be converted or constructed.
Data Maturity Assessment	The Data Maturity Assessment is a summary of the data, including readiness for migration, data quality, data volume, and existing governance procedures including data archiving best practices and recommendations.
Data Migration Strategy	The Data Migration Strategy includes the tools, scope, methodology (approach), processes/procedures, key activities/deliverables, and timeline for data migration for Manitoba Hydro.
Reporting/Analytics Strategy	The Reporting and Analytics Strategy will provide a strategy for categorizing the reports by criticality and usage and recommended approach to migrate to S4.
WP4: Technology Assessment	
SAP Solution Architecture	Proposed SAP Solution Architecture. Overview of the SAP architecture (plan on a page) for the SAP solutions
SAP S/4HANA Migration path	Proposed approach to the SAP S/4HANA Migration path. Detailing how Manitoba Hydro will migrate from the current state to the SAP Future state.
Target Operating Model	High level Target Operating Model for the SAP Solution support function once the solution has been implemented.

SAP Cloud vs. On-premise Assessment	Summary of the SAP target deployment model for Manitoba Hydro
Integration Approach	High level description of how Integration will be managed in the future and the approach to migrating to this target.
WPS: Value Assessment - Business Case	
Benchmarking assessment report	List of business improvement opportunities as well as related financial cost and benefit analysis.
Business improvement opportunities	List and summary description of the Business Improvement Opportunities identified in the workshops.
Major Change impacts	Summary list of the major change impacts from a cost and revenue perspective
Cost and benefit business case value summary	Summary of the costs based on the roadmap planning plus a summary of the benefits and the payback period.
WP6: Change and Business Readiness	
Change impact assessment	Change impact assessment with recommended high-level mitigations
Program readiness plan	Program readiness plan
Leadership assessment	Leadership capability assessment
Change leadership education	Delivery of foundational change leadership education
Readiness scorecard and change roadmap	Readiness scorecard and change roadmap
Change management roadmap and plan	Program change management roadmap and plan
WP7: Program Planning and Implementation Roadmap	
Program Roadmap	Overall Program Roadmap
Project team and governance model	High level design of the project team and project governance model
Manitoba Hydro Resourcing	Manitoba Hydro project team resource requirements by role and responsibility.
High Level Cost Budget	High Level Costs Budget executive summary.

6 Your specific obligations

Manitoba Hydro resources are required to provide existing current-state knowledge, make future-state business and solution decisions, and review and approve Service Products. The Manitoba Hydro resources required are outlined in Appendix B.

7 Assumptions

EY's ability to perform the Services in accordance with the Project Plan (a document that states the assignment of tasks and delivery dates for each party under this SOW), within the agreed upon timeline, and within our fees estimate for the Services is dependent upon the following assumptions and upon Manitoba Hydro's performance of its responsibilities under this SOW and the Agreement.

7.1 General Assumptions

- At the conclusion of each major activity within a work package, EY and Client jointly will have an informal checkpoint to review the work completed to date and identify any risks/concerns with entering the next phase.
- All hardware and software provided by Manitoba Hydro (e.g., SAP ECC) will perform in accordance with their respective specifications so that EY can conduct the fit/gap work. EY will not be responsible for any failure of any Manitoba Hydro systems.
- EY will have no responsibility for the performance of other contractors or vendors engaged directly by Manitoba Hydro, or delays caused by them, in connection with the project. Manitoba Hydro shall be responsible for the contractual relationship with third parties and for requiring that they cooperate with EY - except for those sourced by EY.
- This project will be conducted primarily virtually with some onsite workshops, with mutual agreement in advance of travel required for onsite workshops.
- Manitoba Hydro will provide access to existing SAP ECC systems for the ReSQ tool's analysis.
- Manitoba Hydro will provide access both remotely and onsite to its networks, team sites, email, etc.
- Manitoba Hydro and EY will use Microsoft Office products (Word, Excel, Email, Teams, PowerPoint, Visio, Project, etc.)
- Manitoba Hydro shall identify and comply with all legal and other requirements applicable to the conduct of its business and other activities.
- Manitoba Hydro shall assign a qualified person to oversee the Services. Manitoba Hydro is responsible for all management decisions relating to the Services, the use or implementation of the output of the Services and for determining whether the Services are appropriate for its purposes.
- All Manitoba Hydro identified business and technical SMEs are available for key meetings or working sessions as required to meet proposed timeline. These resources are outlined in Appendix C. If any key resources are unable to attend a session, they can review the workshop recording or session notes, as required.
- Any business expansion is not included in these Services and additional regions/assets/etc. The design criteria will include consideration for Manitoba Hydro growth (e.g., mergers, acquisitions) and the roadmap will include flexibility for these business growth events.
- Manitoba Hydro shall cooperate fully with EY in the provision of the Services and assign personnel with relevant training and experience to work with EY.
- The ongoing support and/or replacement of the Manitoba Hydro resources listed in Appendix C will be the responsibility of Manitoba Hydro. The Manitoba Hydro resources must be stable and available during normal working hours as may be necessary to allow EY to meet the Project Plan and schedule for the Services.
- EY will not be held responsible for delays based on the availability of third-party systems, including those controlled by SAP or other systems being interfaced.
- To enable EY to perform the Services, Manitoba Hydro will meet its assigned milestones defined in the Project Plan. If Manitoba Hydro becomes aware that they are unable to meet any of its assigned milestones, Manitoba Hydro will communicate this in writing to EY as soon as possible, upon which EY will evaluate the impact. When evaluating the impact, EY will make an effort to adjust the Project Plan to avoid potential cost and schedule

impact. If EV will determines there is a cost and schedule impact to the Services, EV will communicate them to Manitoba Hydro in writing. EV and Manitoba Hydro shall then negotiate in good faith to determine if any changes to cost or schedule are required.

- Access to relevant current state documentation on system landscape, data architecture, business process diagrams, etc.
- Read access to SAP ECC or access to resource who may provide information on SAP ECC data
- Source data for the identified data objects will be provided in MS excel, if direct source data/table extraction is not possible.
- SAP ECC and Banner (CIS data) data sources are only in scope for the identified in scope data objects.

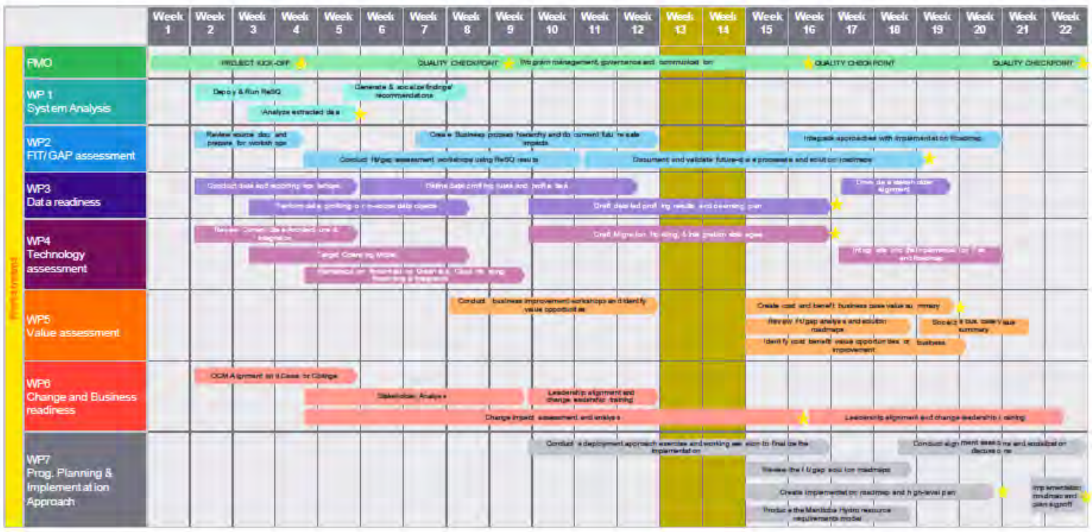
8 Specific additional terms and conditions

- The Services are advisory in nature. EV will not render an assurance report or opinion under the Agreement, nor will the Services constitute an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants or the Chartered Professional Accountants of Canada. None of the Services or any Reports will constitute any legal opinion or legal advice. We will not conduct a review to detect fraud or illegal acts.
- Notwithstanding anything to the contrary in the Agreement or this SOW, we do not assume any responsibility for any third-party products, programs or services, their performance or compliance with your specifications or otherwise.
- We will base any comments or recommendations as to the functional or technical capabilities of any products in use or being considered by you solely on information provided by your vendors, directly or through you. We are not responsible for the completeness or accuracy of any such information or for confirming any of it.
- The Services may involve our review of, or advice relating to, agreements to which you are a party with, or products produced by, a third party (an "EV Client") for which EV (or another EV Firm) performs, or has performed, services unrelated to the agreements or products. On behalf of yourself and your affiliates, you acknowledge and consent to our performance of such services for any EV Client and agree that neither you nor your affiliates will make a claim that these circumstances present a conflict of interest, real or perceived, for us or any other EV Firm.
- During the term, and for a period of 12 months following the termination or expiry, of this SOW, neither party shall solicit for employment, or hire, any employee or contractor of the other party provided, that a party may generally advertise available positions and hire an employee or contractor of the other paertywho either responds to such advertisements or who applies to the party on their own initiative and without direct or indirect encouragement of the hiring party.

9 Timeline

Unless otherwise agreed,, we expect to perform the Services during the period from November 7, 2022, to April 7, 2023. The project timeline is estimated to be 20 weeks, however this timeline will be finalized and confirmed with Manitoba Hydro.

A high-level view of the proposed timeline with key phases and target milestones is outlined below. If the timeline needs to be adjusted to accommodate scope changes to this SOW, the parties will mutually agree upon that extension through the established project governance channels.



10 Contacts

You have identified Melissa Wareham and Kyle Zevena as your contacts with whom we should communicate about these Services. Your contacts at EY for these Services will be Maria Zambakkides, Engagement Partner and the Project Director, Jason de Bruin.

11 Roles and Responsibilities

The following describes EY roles and key responsibilities for this engagement:

Role	Responsibilities
Leadership & Project Management	
Engagement Partner	• Accountable for the EY team delivery • Participate in leadership bodies (e.g., Sponsor Committee, Steering Committee), including helping to prepare materials and present content • Communicate high-level information and goals to the project team • Serve as the pre-Sponsor/Steering Committee escalation point for decisions, risks, issues, and change requests
Project Director	• Responsible for staffing the EY roles, with EY Personnel that EY determines are reasonably necessary to perform the Services and responsibilities contained within this SOW • Participate in leadership bodies (e.g., Sponsor Committee, Steering Committee), including helping to prepare materials and present content • Provide direction to the Project Manager and the broader team on approach, methodology, timeline, resourcing, and risks, and quality management • Communicate high-level information and goals to the project team

Role	Responsibilities
	• Be accountable for governance of the project and monitor major risk mitigation and issue resolution plans • Serve as the pre-Sponsor/Steering Committee escalation point for decisions, risks, issues, and change requests • Oversee the Project Plan and project progression
Project Manager	• Responsible for the delivery of EV Services in this SOW • Provide daily management of the project • Create, monitor, and maintain the overall Project Plan, including coordinating task dependencies and establishing milestone project goals that keep the project on time • Manage the governance procedures for change control, decision-making, risk management, and issue resolution, including documenting the procedures and publishing the log documents for the team • Be the pre-Engagement Partner escalation point for decisions, risks, issues, and change requests • Prepare and manage the status reporting template, procedure, and cadence, gaining alignment from the Manitoba Hydro project leadership and managing the cadence with the team • Provide direction to the Team Leads • Analyze project timeline, resource, budget, and risk impacts for any change requests • Lead deployment planning and cost estimation activities
Quality Advisor	• Create and finalize the Service Quality Plan • Conduct a Project Health Check, reviewing deliverables and conducting interviews • Present the Project Health Check results and recommended action items
SAP 5/4 Architect	• Provide oversight and guidance to the project's deployment planning and overall SAP 5/4 roadmap development activities • Support the project team through the assessment of the appropriate SAP 5/4 migration approach and deployment plan for Manitoba Hydro
Project Control Officer (PCO)	• Provide any required assistance to the Project Manager • Maintain the governance logs (RAID - Risks, Actions, Issues, Decisions) • Make updates to the Project Plan and Project Plan resourcing • Gather team statuses • Take any required leadership minutes • Coordinate team efforts to support planned Project Health Check
Functional Teams	
Team Leads	• Provide all input required to the Project Manager • Prepare for and deliver fit/gap workshops • Share SAP leading practices and standard SAP 5/4 functionality • Conduct the fit/gap assessment • Complete the current-state business process summaries and the gap assessment • Provide a solution summary and maturity assessment • Prepare for and deliver future state workshops • Determine the scope and include in the broader roadmap • Contribute to the cross-functional work- assisting with required RICEFW, required data objects, change impacts, technical implications, and training implications • Participate in deployment planning, Manitoba Hydro timeline creation, Manitoba Hydro resource/effort model, and Manitoba Hydro cost estimate

Role	Responsibilities
	• Provide input to the Project Plan and manage team members in accordance with it • Coordinate and oversee the team members adhering to the governance procedures and provide team status updates • Serve as a pre-Project Management escalation point for decisions, risks, and issues • Oversee the team members' Work Products and deliverables • Participate in the Project Health Check
Team Subject Matter Resources (SMRs)	• Provide all input required to the Team Lead • Prepare for and deliver fit/gap workshops • Share SAP leading practices and standard SAP 5/4 functionality • Conduct he fit/gap assessment • Complete the current-state business process summaries and the gap assessment • Provide a solution summary and maturity assessment • Prepare for and deliver future state workshops • Determine the scope and include in the broader roadmap • Contribute to the cross-functional work- assisting with required RICEFW, required data objects, change impacts, technical implications, and training implications
Cross-Functional Teams	
Team Leads	• Provide all input required to the Project Manager • Prepare for and deliver fit/gap workshops • Complete the Data Object Master List • Conduct and summarize the data maturity assessment • Complete the Change Management Strategy • Analyze functional and non-functional requirements • Conduct cross-functional design sessions • Create he RICEFW List • Complete the Data Migration Strategy • Capture change impacts throughout current and future state workshops and create the Change Impact Assessment • Analyze training requirements and approach • Complete the Training Analysis Assessment • Complete the Change Management Plan • Participate in deployment planning, Manitoba Hydro timeline creation, Manitoba Hydro resource/effort model, and Manitoba Hydro cost estimate • Provide input to the Project Plan and manage team members in accordance with it • Coordinate and oversee the team members adhering to the governance procedures and provide team status updates • Serve as a pre-Project Management escalation point for decisions, risks, and issues • Oversee the team members' Work Products and deliverables • Participate in the Project Health Check
Team Subject Matter Resources (SMRs)	• Provide all input required to the Team Lead • Prepare for and deliver fit/gap workshops • Run the ReSQ Tool in existing ECC requirements and document the output • Complete the Data Object Master List • Conduct and summarize the data maturity assessment

Role	Responsibilities
	• Complete the Change Management Strategy • Participate in the implementation roadmap for Manitoba Hydro • Conduct cross-functional design sessions • Create the RICEFW List • Complete the Data Migration Strategy • Capture change impacts throughout current and future state workshops and create the Change Impact Assessment • Analyze training requirements and approach • Complete the Training Analysis Assessment • Complete the Change Management Plan

The following describes Manitoba Hydro roles and key responsibilities for this engagement:

Role	Responsibilities
Leadership & Project Management	
Project Sponsor	• Accountable for the Manitoba Hydro team delivery • Act as a vocal and visible champion of the project • Participate in leadership bodies (e.g., Sponsor Committee, Steering Committee) • Provide direction to the Manitoba Hydro Project Manager and the broader team on approach, methodology, timeline, resourcing, risks, quality management, budget, and organizational change • Communicate high-level information, goals, and key messages to the project team • Communicate high-level information about the project to the broader organization, as required • Communicate high-level information to critical external stakeholders, as required • Be accountable for governance of the project and monitor major risk mitigation and issue resolution plans • Serve as the pre-Steering Committee escalation point for decisions, risks, issues and change requests • Responsible for approval of major decisions, scope changes, and timeline adjustments, if required • Address obstacles related to policy and business issues for the project team • Participate in Project Health Check • Participate in leadership presentations during the Socialization Phase
Steering Committee	• Participate in project discussions for major decisions, escalated issues, executive summary level status information, and cost estimate review
Project Manager	• Identify, onboard, and directly manage the Manitoba Hydro project resources • Monitor Manitoba Hydro resource allocation per the plan and escalate any resource conflicts internally • Manage internal dependencies and prioritiza ions • Notify EY of any critical internal, non-project activities and dates that may impact the project • Provide EY with information on any required internal policies, procedures, and templates • Responsible for the delivery of Manitoba Hydro activities in this SOW • Participate in the creation and maintenance of the overall Project Plan, including coordinating task dependencies and establishing milestone project goals that keep the project on time • Co-lead the governance procedures for change control, decision-making, risk management, and

Role	Responsibilities
	issue resolution, including documenting the procedures and publishing the log documents for the team • Be the pre-Project Sponsor escalation point for decisions, risks, issues, and change requests • Participate in status reporting • Provide direction to the Manitoba Hydro Team Leads • Analyze project timeline, resource, budget, and risk impacts for any change requests • Participate in deployment planning and cost estimation activities • Participate in the Project Health Check
Project Admin Support	• Provide any required assistance to the Project Manager • Complete any required scheduling for Manitoba Hydro resources (workshops, working sessions, project cadence) • Help maintain he governance logs (RAID - Risks, Actions, Issues, Decisions) • Assist in gathering team statuses • Take any required leadership minutes • Coordinate team efforts to support planned Project Health Check
Functional Teams	
Business Process Owner (BPO)	• Identify and mobilize the Business SMRs associated with the business processes for which the BPO is responsible • With the Manitoba Hydro Project Manager, manage the Manitoba Hydro business SMR's activities • Escalate any Manitoba Hydro resource allocation issues or resourcing/knowledge gaps to the Manitoba Hydro Project Manager • Provide all input required to the Manitoba Hydro Project Manager • Assign the appropriate SMRs to he fit/gap workshops • Responsible for current-state processes and solutions being shared with EV • Prepare for and participate in fit/gap workshops • Discuss gaps, provide requirements, discuss pain points, and review the fit/gap assessment • Participate in and review the current-state business process summaries, the solution summary, and the maturity assessment • Make future-state decisions for Manitoba Hydro (process, solution, data, people) • Review the scope for the broader roadmap • Review the future-state solution summaries • Contribute to the cross-functional work- assisting with required RICEFW, required data objects, change impacts, technical implications, and training implications • Provide input to the Project Plan and manage team members in accordance with it • Coordinate and oversee the team members adhering to the governance procedures and provide team status updates • Serve as a pre-Project Management escalation point for decisions, risks, and issues • Oversee the team members' Work Products and deliverables • Manage the team members against the Project Manager's Project Plan • Participate in the Project Health Check
Business SMRs	• Provide all input required to the Team Leads and Business Process Owners • Prepare for and participate in fit/gap workshops • Responsible for current-state processes and solutions being shared with EV

Role	Responsibilities
	• Prepare for and participate in fit/gap workshops • Discuss gaps, provide requirements, discuss pain points, and review the fit/gap assessment • Review the current-state business process summaries, and the gap assessment • Participate in the solution summary and maturity assessment • Review the scope and include in the broader roadmap • Review the future-state solution summaries • Contribute to the cross-functional work - assisting with required RICEFW, required data objects, change impacts, technical implications, and training implications
Legacy/ SAP ECC Systems Analysts	• Provide all input required to the Team Leads and Manitoba Hydro Project Manager • Provide required information about the existing Manitoba Hydro legacy systems, including process step/current state/requirement/pain point information in the fit/gap workshops • Provide required information about the existing SAP ECC systems, including current-state functionality, pain points, and custom code • Review the results of the ReSQ Tool analysis and participate in discussions about what custom code is really required • Participate in workshops to discuss SAP S/4 capabilities and enhanced functionality • Discuss gaps, provide requirements, discuss pain points, and review the fit/gap assessment • Review the current-state business process summaries, and the gap assessment • Participate in the solution summary and maturity assessment • Participate in future state workshops, providing a perspective on IT considerations • Review the scope and include in the broader roadmap • Contribute to the cross-functional work- assisting wi h required RICEFW, required data objects, change impacts, technical implications, and training implications
Cross-Functional Teams	
Data Owners/ SMRs	• Provide all input required to the Team Leads and Manitoba Hydro Project Manager • Provide required information about the in-scope data objects in the fit/gap workshops • Discuss data requirements • Discuss gaps, provide requirements, discuss pain points, and review the fit/gap assessment • Participate in the solution summary and maturity assessment • Review the Data Object Master List • Participate in and review the data maturity assessment and report • Participate in future state workshops, providing a perspective on data considerations • Review the scope and include in the broader roadmap • Review the future-state solution summaries • Participate in discussions about the Data Migration Strategy • Review the Data Migration Strategy
Change Leads/ Ambassadors	• Provide all input required to the Team Leads and Manitoba Hydro Project Manager • Participate in fit/gap discussions and begin identifying change impacts • Discuss people/resources requirements • Participate in discussions about the Change Management Strategy • Review the Change Management Strategy • Participate in the solution summary and maturity assessment • Participate in current and future state workshops, continuing to identify change impacts • Review all key change impacts with the streams

Role	Responsibilities
	• Participate in discussions about Change Impact Assessment • Contribute to and review the Change Impact Assessment • Participate in discussions about the project/roadmap training needs • Contribute to and review the Training Analysis Assessment • Review the future-state solution summaries • Participate in Project Health Checks • Act as change ambassadors for the project and roadmap to the broader business
Technical SMRs	• Provide all input required to the Team Leads and Manitoba Hydro Project Manager • Provide required information about the existing Manitoba Hydro legacy systems in the fit/gap workshops • Provide required information about the exis ing SAP ECC systems • Discuss non-functional and technical requirements • Discuss gaps, provide requirements, discuss pain points, and review the fit/gap assessment • Participate in the solution summary and maturity assessment • Participate in future state workshops, providing a perspective on technology considerations • Review the scope and include in the broader roadmap • Review the future-state solution summaries

12 Key Personnel

The following EV resources have been identified as Key Personnel to this SOW and EV shall not, without the prior written consent of Manitoba Hydro, remove or replace any Key Personnel identified as such in the applicable SOW (such consent not to be unreasonably withheld).

EV shall notify Manitoba Hydro in writing at least ten (10) days before the intended date of replacement. However, where replacement is necessitated by the death, illness, incapacitation, resignation or termination for cause of a Key Personnel, EV shall, as soon as it becomes aware of the need for replacement notify Manitoba Hydro. EV shall provide to Manitoba Hydro the replacement's name and qualifications (including resume and references. Manitoba Hydro may, at its option, interview the proposed replacement.

Role	Key Personnel Name
Engagement Partner	Maria Zambakkides
Project Director	Jason de Bruin
Project Manager	Barry Au
SAP 5/4 Architect	Prajakt Dhumal
Change Lead	Lisa Versteeg

[redacted] 1d

[redacted]

1d

14 Signature

Please indicate your agreement with the terms of this engagement by executing this SOW in the space provided below and returning it to Maria Zambakkides so that we may start work on this project.

Yours very truly,

per **Maria Zambakkides**
Partner/Technology Consulting
Ernst & Young LLP
November 7, 2022
• Partner of Ernst & Young LP providing services to Ernst & Young LLP

Agreed:

Ian N. Fish

per **Ian Fish**
Vice-President Digital and Technology
Manitoba Hydro
November 7, 2022

Agreed:

per **Ryan McCormack**
Senior Director, Enterprise Transformation
Manitoba Hydro
November 7, 2022

Appendix A – Change Control Procedure

Change requests will be logged in the Change Request Log and reviewed by the Change Control Board, comprising both EY and Manitoba Hydro project leadership team members.

Please see below for the Project Change Request Form:

Record details			
Change Request Name:	*Insert change request name*	**Change request ref:**	*Assign change request ref (next sequential number from the change request log) and create a new record in the change request log*
Change Request Administrative Details			
Prepared by:	XX	**Date received:**	YYYY-MM-DD
Risk/Issue ref:			
Change request information: To be completed by the person requesting the change			
Fields which must be completed by the Requestor are shown in ***bold***			
Change Request Impact *(select all that apply)*	Scope ☐ Schedule ☐ Resources ☐ Budget ☐		
Requestor name:	*Insert Requestor's name*	Req. Role:	*Insert Requesters Role/Title*
Change description:	*Insert description and overview of the specific change*		
Change justification:	*Insert change justification including risk of not accepting the change request and any risks associated with accepting the risk*		
Change Impact:	*Include effort and impact by workstream. Please ensure to consider total effort with respect to the full lifecycle effort (solutioning, documenting, building, testing as an example)*		
Alternatives/comments:	*Insert potential alternatives if change request is not accepted.*		
Supporting information:	*Attach any supporting documentation and information to support the change request*		

Cost Impact: Completed by Project Manager

Fee Impact(s)	*Include additional fees, if required*
Additional information and comments:	*Include supporting documentation*

Change Control Board Final decision

Final Decision: *Insert final change request decision and justification. If deferred, please provide deferral date*

Action Items:

Action Description	*Action Owner*

Approval Signatures

If approved, approval signatories are to sign below (to be customized accordingly)

Name: Position:
Signature:

Name: Position:
Signature:

Name: Position:
Signature:

Appendix B - Required Manitoba Hydro Resources

The following describes the estimated involvement for each Manitoba Hydro role for this engagement. This is subject to change during the project preparation based on the knowledge and subject matter expertise of the resources assigned.

Role	M1	M2	M3	M4	MS
Project Sponsor	10-15%	5-10%	5-10%	10-15%	10-15%
Project Manager	100%	100%	100%	100%	100%
Business Process Owners (BPO)	20-30%	40-50%	50-60%	50-60%	10-20%
Business SMRs	5-10%	20-30%	30-40%	30-40%	5-10%
Legacy/ SAP ECC Systems Analysts	10-20%	30-40%	50-60%	50-60%	10-20%
Data Owners/ SMRs	30-40%	30-40%	30-40%	30-40%	5-10%
Change Leads/ Ambassadors	40-50%	50-60%	50-60%	50-60%	50-60%
Technical SMRs	5-10%	20-30%	30-40%	30-40%	10-20%

Appendix C - Workshop Schedule

The following attached workshop schedule provides the details of the estimated number of workshops expected for this Project and does not include any ad hoc meetings that may be required with Manitoba Hydro to complete the deliverables set forth in this SOW. The number of workshops is subject to change and refinement based on the current state documentation that Manitoba Hydro is able to provide, and the level of details included in them.

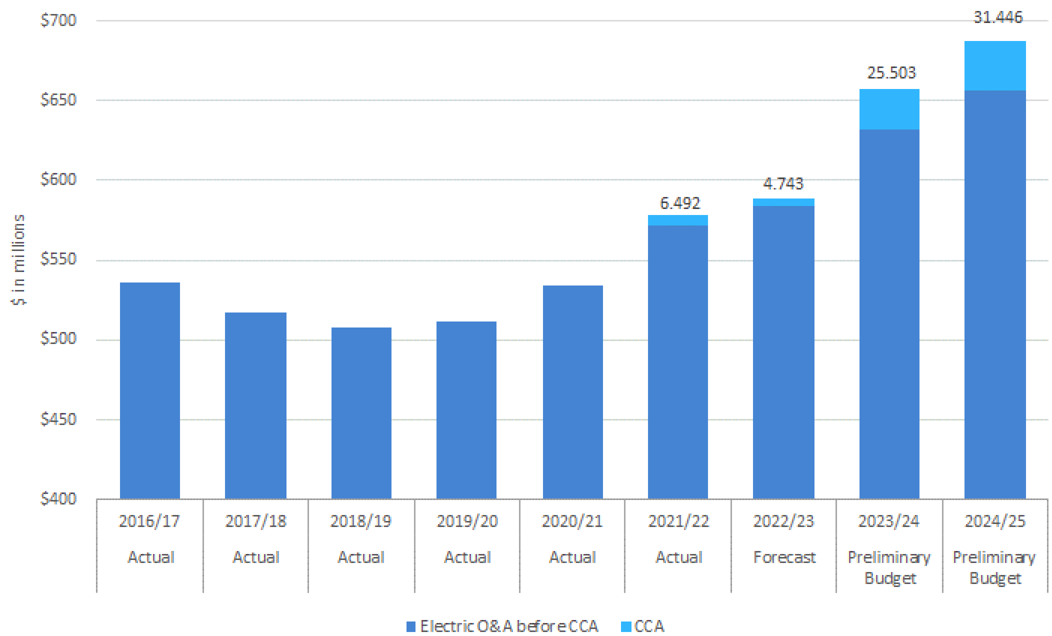
Appendix D - Business Process Hierarchy Definition

The following table describes the business process hierarchy (BPH) and its definition for LI to L3.

BPH Level	BPH Name	Description	Examples
LI	End-to-end Scenario Group	The end-to-end processes that describe the overall business scenario performed by Manitoba Hydro from front-office Customer Service/Billing and Asset Lifecycle to back-office Finance, HR, and Procurement.	• Record-to-Report (RTR) • Order-to-Cash (OTC) • Procure-to-Pay (PTP) • Acquire-to-Retire (ATR) • Meter-to-Cash (MTC) • Hire-to-Retire (HTR)
L2	Process area	Describes the major grouping of business processes that exist within Manitoba Hydro's business to run the end-to-end scenarios.	• RTR Perform general accounting • PTP Manage operational procurement • MTC Customer services • MTC Billing and Invoicing
L3	Processes	Describes the core business processes that are performed by the business and/or system within the Process area.	• Perform general accounting Process Journal Entries • Manage operational procurement Receive Goods/Services • Customer services Customer Moves • Billing and Invoicing Calculate Bill

The following attached draft business process hierarchy provides the estimated number of processes expected for this Project as a starting point. The number of processes will be evaluated during the current state workshops and will be finalized as part of Work Package 2.

Figure 6.18 O&A costs with CCA identified as an incremental cost in O&A



6.6.1 Why is Manitoba Hydro moving to the Cloud?

Manitoba Hydro is not alone in making the transition to CCA. While utilities have generally lagged broader industry in adopting cloud-based services, the shift is now well underway. In a 2021 end-user cloud study led by Gartner, 71% of utility respondents cited that their organizations will increase their cloud spend over the next 12 months. Gartner (2021) also found that utility respondents reported the top outcomes achieved by adopting cloud included improved productivity, improved efficiency, cost optimization, and enabled digital business strategy[2].

There are three main reasons that Manitoba Hydro is moving to the Cloud: 1) cyber security risk mitigation; 2) Cloud enables continuous evaluation and process improvement; and 3) cost avoidance.

[2] Cloud End-User Buying Behavior Study: Utilities
Ethan Louis Cohen
Gartner, 2021

REFERENCE:

Coalition/MH I-76 b

PREAMBLE TO IR (IF ANY):

In Coalition/MH I-76 b, MH was requested to provide a breakdown of total cloud computing arrangements for the period 2021/22 to 2024/25.

QUESTION:

Please update the tables provided in the response to Coalition/MH I-76 b to breakdown the $6 million (2021/22), $5 million (2022/23), $26 million (2023/24) and $31 million (2024/25) of incremental O&A costs related to cloud computing arrangements by cost element.

RESPONSE:

Please see Figure 1 below which provides a breakdown of the total cloud computing arrangement (CCA) costs for fiscal years 2021/22 to 2024/25 by cost element. The amounts in the total line reconcile to the incremental O&A costs pertaining to CCA as shown in Figure 6.18 (Tab 6 of this application) and Figure 1 of Coalition/MH I-76 b).

Figure 1: Cloud Computing Arrangement (CCA) Costs (2021/22 to 2024/25) by cost element

MANITOBA HYDRO
CLOUD COMPUTING ARRANGEMENT COSTS

($ in Millions)	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Consulting & Professional Fees	$1	$2	$18	$20
Computer Services	0	0	4	7
Administrative Services	1	0	0	0
Miscellaneous Expense	2	0	0	0
Total Operational Expenses	4	2	22	27
Internal Labour	2	3	4	5
Total - CCA Costs	**$6**	**$5**	**$26**	**$31**

0REFERENCE:

Reference: Tab 4, Appendix 4.3 pg.12 Figure 4, Tab 6 pg.33 Figure 6.19

QUESTION:

a) Please indicate to what extent Manitoba Hydro has incurred operating or integration expenses related to cloud computing arrangements in 2019/20, 2020/21 or 2021/22, if so, please indicate the amount and how the costs were treated for financial reporting purposes. Please provide the same level of detail as Figure 6.19.
b) Provide a detailed schedule of the forecast operational expenses to be incurred in 2023/24 and 2024/25 beyond by the related system.
c) With respect to other software systems, explain how the Corporation determined the 6-year life cycle related to these system expenditures.
d) Please indicate the FTEs that are associated with the forecast labour charges and whether they are external or internal resources.
e) Please provide an expanded Figure 4 amortization schedule detailing the amortization of the spending on each software system.
f) What is the anticipated integration/migration costs related to the Banner system?

RESPONSE:

a) Please see **Figure 1** below which provides the Cloud Computing Arrangement (CCA) costs for 2019/20, 2020/21 and 2021/22, with the same level of detail as in Figure 6.19 in Tab 6 of the Application, plus the financial reporting treatment for those respective years.

   Integration costs were charged to Business Operations Capital in 2019/20 and 2020/21. As noted on page 34 of Tab 6 (Section 6.6.2), an adjustment was made in 2021/22 to move CCA costs that had been charged to capital to O&A to reflect the change in accounting treatment for CCA. Figure 1 only includes CCA costs for Small Software Systems (excludes CCA costs for SAP S/4HANA as work related to that is not forecasted to start until 2023/24).

Figure 1 – Cloud Computing Arrangement (CCA) Costs for Small Software Services

MANITOBA HYDRO
CLOUD COMPUTING ARRANGEMENT COSTS FOR SMALL SOFTWARE SERVICES

($000s)	2019/20	2020/21	2021/22
Operating Expenses:			
Operational (Subscription Fees)	$820	$1,230	$4,016
Integration Expenses:			
Operational[1]	118	189	4,445
Labour Charges[1]	457	1,096	188
Total CCA (Small Software Services)	**$1,395**	**$2,515**	**$8,649**
Financial Statement Treatment[1]			
Total CCA per F/S - Operating	$820	$1,230	$10,508
Total CCA per F/S - Capital	$574	$1,285	($1,859)

(1) Integration expenses were charged to Business Operations Capital prior to 2021/22. Fiscal 2021/22 includes an adjustment to transfer capitalized CCA from prior years to O&A to reflect change in accounting treatment for CCA, explaining the difference between total CCA and the financial statement treatment for that fiscal year.

b) Please see **Figure 2** below which provides the forecasted operational expenses for CCAs from 2023/24 to 2029/30. No operating expenses are shown for SAP S/4HANA until after 2029/30 which is the estimated in-service year for the project. Operating expenses in Figure 2 represent ongoing subscription fees for the Cloud based solutions.

As identified in PUB-MH I-28 e, cost information for SAP S/4HANA assumes that there is a high probability that the majority of this software technology will use a cloud-based solution. Manitoba Hydro is in Phase 0 (pre-planning) of determining the approach to the newer version of SAP and the cost projections and in-service assumptions used in the forecast will change as planning progresses.

Figure 2 – Cloud Computing Arrangement (CCA) Costs (Operational Expenses)

MANITOBA HYDRO
CLOUD COMPUTING ARRANGEMENTS (OPERATIONAL EXPENSES)

($000)	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31+
Integration Expenses:								
SAP S/4HANA	$10,986	$20,067	$21,181	$21,181	$22,071	$22,071	$20,089	$0
Small Software Systems[1]	11,300	6,750	6,750	6,750	6,750	6,750	6,750	6,750
Total Integration Expenses	**22,286**	**26,817**	**27,931**	**27,931**	**28,821**	**28,821**	**26,839**	**6,750**
Operating Expenses:								
SAP S/4HANA	0	0	0	0	0	0	0	8,918
Small Software Systems[2]	5,552	5,663	TBD	TBD	TBD	TBD	TBD	TBD
Total Operating Expenses	**5,552**	**5,663**	**0**	**0**	**0**	**0**	**0**	**8,918**
Total CCA Operational Expenses	**$27,838**	**$32,480**	**$27,931**	**$27,931**	**$28,821**	**$28,821**	**$26,839**	**$15,668**

(1) Amounts presented for Small Software Services for 2023/24 and 2024/25 are contained in the Preliminary Budget for O&A. Amounts for 2025/26 and beyond have not been forecasted. Amounts presented for these years assuming same estimate excluding escalation.

(2) Amounts presented for Small Software Services for 2023/24 and 2024/25 are contained in the Preliminary Budget for O&A. Unable to provide values for future years as the amount will be contingent on the systems installed.

c) Manitoba Hydro selected a 6-year amortization period which was based on an IT management estimate of a 5–7-year service life for associated software systems.

d) Please see **Figure 3** below which provides the hours associated with the labour charges presented in Figure 6.19. The hours shown represent high level estimates of the internal resources required to support these CCA systems. Internal resources work on a multitude of projects and tasks making it difficult to specifically identify the FTEs working on Cloud Computing Arrangements and split by these systems.

Figure 3 – Cloud Computing Arrangement Labour Charges (Hours)

MANITOBA HYDRO
CLOUD COMPUTING ARRANGEMENT - HOURS ASSOCIATED WITH FORECASTED LABOUR CHARGES

	2023/24	2024/25
SAP S/4 HANA	14,400	28,400
Small Software Systems	15,800	15,800
Total CCA Hours for Forecasted Labour Charges	**30,200**	**44,200**

e) Manitoba Hydro is not proposing a regulatory deferral for the regular recurring CCAs related to small software systems as there is no benefit to customers by deferring these costs after year 5 (2027/28), as discussed in Appendix 4.3 Section 1.4.2. Figure 2 above provides additional details on the software systems costs.

f) Manitoba Hydro cannot provide anticipated costs associated with integration and/or migration of the current Customer Information and Billing System (Banner) as work has not yet been undertaken to identify a strategy for this system. Manitoba Hydro is embarking on an initiative to better understand alternatives and ascertain potential costs as part of the SAP S/4 HANA pre-planning work.

REFERENCE:

Appendix 4.3 CCA Figures 2 and 3

PREAMBLE TO IR (IF ANY):

Manitoba Hydro is requesting PUB approval to establish a regulatory deferral for SAP S/4HANA CCA to smooth the impact of rate increases resulting from the increase in operating expenses of $156 million pertaining to this one-time significant investment. The amortization period of 10 years is the estimated service life of SAP S/4HANA, which is based on the expected life of the licence agreement and the amount of effort and complexity in transitioning to a cloud-based solution.

Manitoba Hydro is still evaluating alternatives for SAP S/4HANA, which could impact the in-service assumption for this deferral which could advance the commencement of amortization.

QUESTION:

a) Please indicate which of the cloud arrangements (Saas, Paas, Iaas) set out in Appendix 6.1 Manitoba Hydro will be developing and how those systems meet the guidance for accounting.
b) Please explain whether IFRS14 can supersede IAS 38 with respect to the accounting for cloud computing costs and whether Manitoba Hydro has had consultations with its external auditor on this issue.
c) Please provide the detail of the $156 million in integration and migration costs between internal labour and external services.
d) Please provide the term of the licence agreement for the cloud contract arrangement.
e) Please indicate when the Corporation expects to have an operational cloud-based SAP system and provide a revised schedule commencing the amortization when the system is operational.

RESPONSE:

a) At this time Manitoba Hydro is in the pre-planning phase (Phase 0 which includes education, readiness assessment and business case) and has not made recommendations on implementation of SAP S/4HANA with respect to cloud computing arrangements (SaaS, PaaS, IaaS). Once recommendations have been formed, Manitoba Hydro will review each arrangement to determine appropriate accounting treatment. There is a high probability that the majority of this software technology will use a cloud-based solution.

b) IFRS 14 does not supersede IAS 38. Under IFRS, transactions are first accounted for in the respective financial statement line item to which they pertain. For Cloud Computing Arrangements (CCA), the dominant standard which governs their treatment is IAS 38 which results in most cloud computing costs being ineligible for capitalization. The purpose of IFRS 14 is to specify the financial reporting requirements for regulatory deferral account balances that arise when a company is rate regulated. These balances reflect the differences that occur between reporting for rate setting purposes and the treatment of transactions that are required in the absence of regulation. The scope of the IFRS 14 standard covers only the activities and impacts of rate regulated decisions, and it does not supersede or alter the treatment of other standards. After applying the guidance of other primary standards, the corporation can apply the guidance in IFRS 14 for the establishment of regulatory deferral account balances that arise from rate regulated activities. An item may be deferred on the Statement of Financial Position if it is included, or is expected to be included, by the rate regulator in establishing the rate(s) that can be charged to customers in the future.

   Manitoba Hydro has discussed this matter with its auditors.

c) Please see **Figure 1** below for details of the $156 million between external services and internal labour for SAP S/4HANA CCA.

Figure 1. SAP S/4HANA CCA - External Services and Internal Labour

SAP S/4 HANA Cloud Computing Arrangement (CCA) *(in Millions)*	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
External Services	11	20	21	21	22	22	20	-	-
Internal Labour	2	3	3	3	3	3	3	-	-
Total SAP S/4 HANA	**$ 13**	**$ 23**	**$ 24**	**$ 24**	**$ 25**	**$ 25**	**$ 23**	**$ -**	**$ -**

d) Manitoba Hydro is in the pre-planning stages and a contract has not been signed for SAP S/4HANA.

e) The Corporation is in the pre-planning stages of forecasting SAP S/4HANA, the replacement for SAP ECC, and does not have a defined schedule yet or any updates to reflect when the Corporation will have an operational cloud-based SAP system. Operating and administrative (O&A) expenses of $156 million have been forecasted over a period of seven years from 2023/24 to 2029/30 for the core functions of SAP S/4HANA. Peripheral modules such as Ariba, Fieldglass, Success Factors, and the replacement of Banner are not included in the forecast.

There is a high probability that the majority of this software technology will use a cloud-based solution. Manitoba Hydro is in the planning phase of determining the approach to the newer version of SAP and the cost projections and in-service assumptions used in the forecast will change as planning progresses. The regulatory deferral currently assumes an in-service date of 2029/30 with the commencement of amortization in 2030/31. There are no updates to the amortization schedule in Appendix 4.3 Figure 3.

REFERENCE:

PUB/MH I-28a-e

PREAMBLE TO IR (IF ANY):

Manitoba Hydro is requesting PUB approval to establish a regulatory deferral for SAP S/4HANA CCA to smooth the impact of rate increases resulting from the increase in operating expenses of $156 million pertaining to this one-time significant investment.

Manitoba Hydro is still evaluating alternatives for SAP S/4HANA, which could impact the in-service assumption for this deferral which could advance the commencement of amortization.

At this time Manitoba Hydro is in the pre-planning phase (Phase 0, which includes education, readiness assessment and business case) and has not made recommendations on implementation of SAP S/4HANA with respect to cloud computing arrangements (SaaS, PaaS, IaaS).

QUESTION:

e) Please indicate the number of internal and external FTE that will be involved in the project by year.

RESPONSE:

Please see Figure 1 below which provides the hours associated with internal labour charges presented in PUB/MH I-28c Figure 1. Hours shown represent high-level estimates of internal resources required to support SAP S/4HANA. Internal resources work on various projects and tasks, making it difficult to specifically identify FTEs by project. Internal resource requirements will be refined at the completion of Phase 0 (pre-planning).

The external FTE requirements have not been determined at this time. External resource requirements will be determined based on the final deliverables of Phase 0 (pre-planning) which is still underway. This is consistent with the current plan and preliminary costs included in the Application. See PUB/MH II-11f for additional details.

Also, please refer to GSS-GSM/MH I-6c for an explanation of how estimated costs were compiled.

Figure 1 – SAP S/4 HANA Internal Labour Charges (Hours)

MANITOBA HYDRO
SAP S/4 HANA - HOURS ASSOCIATED WITH FORECASTED LABOUR CHARGES

	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Total SAP S/4 HANA Hours for Forecasted Labour Charges	14,400	28,400	28,400	28,400	28,400	28,400	28,400

REFERENCE:

PUB/MH I-28a-e

PREAMBLE TO IR (IF ANY):

Manitoba Hydro is requesting PUB approval to establish a regulatory deferral for SAP S/4HANA CCA to smooth the impact of rate increases resulting from the increase in operating expenses of $156 million pertaining to this one-time significant investment.

Manitoba Hydro is still evaluating alternatives for SAP S/4HANA, which could impact the in-service assumption for this deferral which could advance the commencement of amortization.

At this time Manitoba Hydro is in the pre-planning phase (Phase 0, which includes education, readiness assessment and business case) and has not made recommendations on implementation of SAP S/4HANA with respect to cloud computing arrangements (SaaS, PaaS, IaaS).

QUESTION:

f) Please provide a description of the external resources envisioned being deployed on the project, as well as the roles of any external service providers.

RESPONSE:

As part of the pre-planning process, an assessment of external resource requirements will be made. It is envisioned that external resources may be required to support ongoing operations while internal staff are assigned to support SAP S/4HANA implementation efforts. It is also envisioned that external resources may be required to support the implementation from a project execution perspective bringing SAP S/4HANA knowledge and expertise. This is consistent with the current plan and preliminary costs included in the Application, which will be further refined based on the final deliverables of Phase 0 (pre-planning).

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These budgets subsequently go through a review process that includes review by the Manitoba Hydro-Electric Board ("MHEB") and the Province of Manitoba.

6.3 Providing Manitobans with Increased Value

Manitoba Hydro has continuously evaluated its business processes and embarked on continuous improvement opportunities to provide Manitobans with increased value. Tab 2, Appendix 2.4, includes some recent examples of continuous improvement initiatives, while Tab 2, Section 2.5, describes Manitoba Hydro's plan to continue to enhance the continuous evaluation and improvement model.

Over the last five years, Manitoba Hydro has undertaken several cost containment efforts specifically intended to reduce O&A growth, including, several initiatives, such as:

- Voluntary Departure Program ("VDP") that started in fiscal year 2017/18 in which there was a reduction of 15% of Manitoba Hydro's workforce. Manitoba Hydro continues to maintain this reduction through the Test Years as evidenced further below;
- Supply Chain savings, which has now shifted to Manitoba Hydro participating in the Government of Manitoba's Procurement Modernization Initiative, as described in Section 6.9.3; and,
- Cost reductions in 2020/21 of approximately $54 million in O&A as a direct result of the onset of the COVID-19 pandemic and Manitoba Hydro's effort to assist the Government of Manitoba in its efforts to reduce costs. Manitoba Hydro made these reductions using a number of strategies to decrease labour costs and through non-salary operating reductions. While deemed necessary due to the extenuating circumstances of the pandemic, these were one-time reductions that are not sustainable and from which Manitoba Hydro is currently trying to recover.
    - Measures to reduce labour costs included a freeze on external hiring and stringent vacancy management, the suspension of the summer student program, as well as a requirement for almost all employees to take three days of unpaid leave.
    - Non-salary operating reductions included the elimination of spending that could be deemed as non-essential or discretionary during the pandemic such as reduced fleet renewal, and reductions in advertising, sponsorships, donations, consulting, contracted services, training and staff development, and travel.

There are also several other initiatives that have had an impact on O&A due to continuous evaluation and process improvements. These include the following:

- Northern Generating Stations Partially Unstaffed: Manitoba Hydro installed communication equipment upgrades to Kettle, Long Spruce, Limestone, and Grand Rapids generating stations to enable Manitoba Hydro's System Control Center to monitor and control station operations at night and during weekends. The implementation of system upgrades to allow for periods of time the stations are unstaffed results in cost savings associated with travel and personnel. System upgrades to allow for unstaffed locations were completed as follows: Kettle (2012); Limestone (2017); Long Spruce (2018); and Grand Rapids (2020).
- Decommissioning of the Selkirk Generating Station: A life cycle analysis of the Selkirk Generating Station determined that continued operation of the station beyond 2020 was no longer economically feasible. The station was removed from active service and the corporation will continue to implement salvage and decommissioning activities of this facility, reducing O&A costs to only include the bare minimum maintenance needs to maintain heating, ventilation, fire protection and security monitoring systems. Selkirk Generating Station was taken offline on April 1, 2021 and affected staff were re-deployed or managed through the workforce adjustment process to ensure fair treatment.
- Conversion of the Jenpeg and Kelsey Generating Stations to Fly-in Locations: In August 2018, Jenpeg Generating Station completed a two-year trial period where employees worked a 4 days on/3 days off schedule instead of the existing 8 days on/6 days off schedule. Under the 4 days on/3 days off schedule, employees were allowed to fly to the station. At the conclusion of the trial period, union members ratified the 4 days on/3 days off schedule change in September 2018. The result was an improved work/life balance for employees, which helps with recruitment and retention, and less total FTEs were required to operate and maintain the station. (Rather than two groups of employees working 8 days on/6 days off shifts, all employees worked the same 4 days on/3 days off shifts.) Under the new schedule, the station was also unstaffed on weekends. Effective May 2022, the shift schedule at the Kelsey Generating Station was also changed to a fly-in location using the 4 days on/3 days off shift schedule, anticipated to result in a further reduction in FTEs at site and allows for those FTEs to be repurposed for other critical work.
- Tree Trimming Leveraging Technology: In October 2021, customer tree-trimming requests moved to an online submission that includes customers providing photos of the

tree(s) that are causing issues. Receiving better information and photos digitally from customers reduces the requirement for a truck and crew to investigate the tree trimming request. Requests are reviewed by employees at the applicable Customer Service Centre and, generally, a determination can be made through this process about whether this is an issue that requires Manitoba Hydro's attention or whether it is a tree trimming issue that is the responsibility of the property owner. Site investigations have reduced by more than 40% as a result of this initiative.

As the business evolves, including the changes arising from the plans included in Strategy 2040, Manitoba Hydro will continue to evaluate and look for improvements that could help manage O&A costs.

6.4 FTEs are Required to meet our Customers' Evolving Energy Needs while continuing to meet our Core Mandate

Strategy 2040 provides a vision and plan for how Manitoba Hydro will serve its customers. In order to do so effectively, an increase in FTEs is necessary.

Manitoba Hydro, today, does not have the required staffing levels to meet Manitobans' current and evolving energy needs. Manitoba Hydro is increasing FTE levels to ensure it can continue to provide safe and reliable service and respond to customers' current needs and future expectations.

The current focus is on rebuilding the core workforce to sustainable levels, including trades and technical trainees, professional trainees, contact center staff, as well as adding necessary positions that have emerged through the Business Model review in areas such as Asset Management, Integrated Resource Planning, Work Management, Enterprise Risk, Enterprise Planning and Change Management.

Manitoba Hydro hires permanent, term and seasonal staff to manage, operate, maintain and construct the corporation's assets, and to provide service to customers. An FTE represents a full-time employee, although it should be noted that the number of FTEs do not equate to the number of positions. For example, students are a partial FTE. Manitoba Hydro generally employs students for four months of the year; therefore, each student would be approximately 0.33 of an FTE.

enter the workplace; field-based employees are not afforded that same option given the nature of their work.

Manitoba Hydro's largest union – IBEW – represents approximately 45% of Manitoba Hydro's employees and is predominantly made up of field-based employees and other employees that support the critical functions associated with operating, maintaining and building Manitoba Hydro's assets.

In 2021/22, the IBEW workforce saw an increase in absences, primarily related to sick time usage. This had a negative impact on Manitoba Hydro's ability to complete work, reducing capitalization rate in the magnitude of approximately $3-5 million in 2021/22.

This trend is continuing in 2022/23 year to date; however, it is unclear how long this impact may last and when, or if, Manitoba Hydro will ever return to a point in time when employees can come to work if they are showing cold and flu-like symptoms and are possibly contagious or have tested positive for a new COVID-19 infection.

The increase in absences also results in a further delay in planned work, either maintenance or capital, which will further impact O&A expenses.

Impact of New Employees

With the decrease in FTEs, as shown in Figure 6.9, there has been a need to increase the number of external hires at Manitoba Hydro. Additionally, due to the Business Model changes that Manitoba Hydro has put in place, as well as increased attrition, there has been a lot of internal movement of employees as new opportunities have become available. With these changes, there is an increase in the amount of training for new employees or employee changes, as described in Section 6.5.2, which is resulting in increased O&A expenses due to an increase in non-chargeable time.

6.9 Pandemic Related Impacts are adding to Cost Pressures

When the COVID-19 Pandemic hit Manitoba in March 2020, Manitoba Hydro had to swiftly change the way it operates. Manitoba Hydro had to take significant measures to ensure that customers continued to receive safe and reliable service, while also ensuring the health of employees and customers.

Through the pandemic there were incremental costs incurred, some of which continue today. These will be described further in in the subsections below.

6.9.1 COVID-19 Incremental Direct Costs

The incremental costs directly related to the COVID-19 Pandemic include:

- the mobilization of a backup control centre;
- additional cleaning measures required for all corporate facilities;
- the purchase of personal protective equipment for staff;
- the costs to implement social distancing protocols in motor vehicles; and
- nursing staff (on contract) to support the management of COVID-19 screening.

The incremental direct COVID-19 costs incurred to the end of September 2022 are as follows:

Figure 6.26 Incremental Direct COVID-19 costs, April 2020 – September 2022

($ in millions)	2020/21 Actual	2021/22 Actual	2022/23 Actual to September 30, 2022
COVID-19 costs	$ 6.2	$ 3.4	$ 1.5

Manitoba Hydro is still incurring increased costs that were not in place pre-Pandemic. The requirement for additional cleaning measures at all facilities continue, to ensure that employees remain safe. Manitoba Hydro also continues to purchase personal protective equipment and additional hand sanitizer, which were not costs being incurred in advance of the Pandemic.

6.9.2 Increase in Uncollectible Accounts

In April 2020, the Province of Manitoba announced that Manitobans would be granted a suspension of late payment charges on their electric and gas bills for up to six months. During this time, Manitoba Hydro also discontinued the disconnection of customers for non-payment.

As a result of customers delaying payment (given the extended credit period Manitoba Hydro offered to customers during the pandemic) as well as the financial hardships many Manitobans experienced throughout the Pandemic, Manitoba Hydro saw a significant increase in customer arrears. Over the two-year period during the pandemic, arrears > 90 days for electric customers increased 80% or approximately $23 million. By the end of fiscal 2021/22, the expected credit loss allowance for electric customers had increased by approximately $8 million and resulted in Manitoba Hydro recording a bad debt expense in the amount of $6 million.

Manitoba Hydro is not anticipating any further spikes in uncollectible accounts.

6.9.3 Supply Chain Challenges

The COVID-19 Pandemic has resulted in global supply challenges due in large part to labour and material shortages which has impacted individuals, businesses, and industries. The supply chain issues continue to be exasperated by regulatory changes, political unrest, and ongoing environmental and natural disasters, which contribute to global supply shortages and challenges; notably the impact of the increase in the price of fuel, as discussed in Section 6.5.2, has significant pricing impacts across the supply chain.

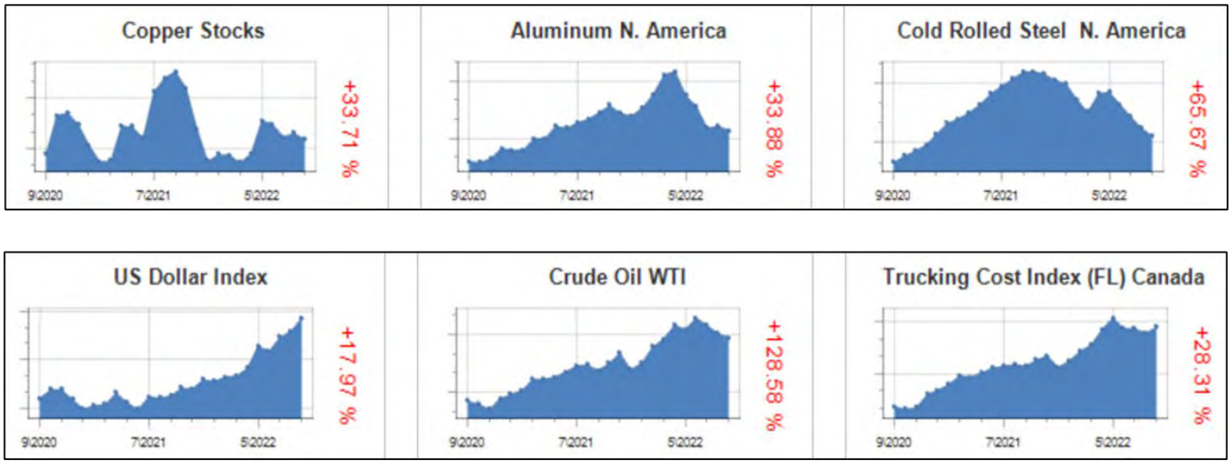
Manitoba Hydro was and continues to be impacted by the supply challenges that are affecting costs, availability of goods and services and the time it takes to get goods, if available. Most suppliers are signaling that it may take at least two more years before the supply chain environment normalizes.

Further to the challenges described in Section 6.5.2, related to the impacts being seen on the acquisition of fleet, and the increasing cost of fuel and motor vehicle expenses, there are other supply chain challenges that are contributing to an increase in O&A, including, but not limited to, the cost of:

- Materials
- Equipment rentals
- Contracted maintenance work

The cost of materials has risen. There are price increases on many commodities that are used in materials and equipment required as an electric utility. These include steel, aluminum, and wood to name a few. Figure 6.27 below illustrates the changes seen on the price of commodities used extensively as an electric utility.

Figure 6.27 Price trend of commodities commonly used by an Electric Utility, 2020 - 2022



In addition to price increases, there has been a shortage of supply for many materials required, along with longer lead times to get material delivered, with delivery dates in the 6-to-24-month range. This includes transformers, electrical components, wire and cable, wood poles, specialized fleet (heavy equipment) and fleet parts.

In response to the changes happening with commodity price increases, Manitoba Hydro is contracting with more than one vendor/manufacturer for core commodities to mitigate the risk of long lead times and challenges with availability.

Contracted service costs for maintenance work have also increased significantly and Manitoba Hydro is challenged to remain competitive in this changing environment. There are increased cost pressures on vendors, similar to the impacts that are impacting Manitoba Hydro with the rising cost of fuel, materials and labour expenses. Vendors are increasing their costs and are choosing to go with customers that are willing to pay the increased rates they need. This is changing the relationship with vendors and is having a significant impact on Manitoba Hydro.

Manitoba Hydro is experiencing a reduction in options with vendors and having to increase the price paid for services required. An example of this is vegetation management. As described in Section 6.7.2, Manitoba Hydro is behind industry standards for vegetation management and there is a need to focus on this work to ensure reliability and safety.

Manitoba Hydro continues to pursue supply chain management initiatives to realize savings on goods and services purchased and reduce, or avoid, both O&A and capital expenditures. In June 2019, Manitoba Hydro was invited to participate in the Government of Manitoba's

Procurement Modernization Initiative (Collaborative Procurement) through the formation of a Buying Group made up of Summary Government entities, including all Crown Corporations. The objective of the initiative is to use the collective buying power to generate savings and consistency across government entities.

While there has been some success in achieving savings through existing contracts, as well as contracts tendered through Procurement Modernization, the Pandemic, along with many other significant global disruptions, as outlined above, both slowed down the efforts of Procurement Modernization and introduced extensive challenges in both procuring goods and services and, when available, procuring them at or below their historical prices. As a result, cost quickly became secondary to getting supply for critical items.

Figure 6.28 Supply Chain Costs Savings

	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2017/18 - 2023-24 Total
Information Technology and Communication	$ -	$ -	$ 8 787	$ 24 805	$ 381 770	$ 668 581	$ 668 581	**$ 1 752 524**
Logistics, Transport & Fleet	-	-	-	84 117	123 467	146 927	146 927	**$ 501 438**
Travel, Hospitality and Catering	-	-	-	(7 265)	5 063	6 000	6 000	**$ 9 797**
Procurement Modernization Total	**-**	**-**	**8 787**	**101 656**	**510 300**	**821 508**	**821 508**	**$ 2 263 758**
Building, Facility, Construction and Maintenance Services & Goods	337 419	503 678	2 106 104	30 681	3 805	257 543	257 543	**$ 3 496 774**
Information Technology and Communication	250 684	2 026 687	3 855 665	1 724 718	2 192 999	1 349 110	1 349 110	**$ 12 748 973**
Infrastructure Equipment and Core Components	4 829 494	6 290 761	3 498 843	1 723 224	704 961	188 982	188 982	**$ 17 425 248**
Logistics, Transport & Fleet	513 772	344 334	745 544	747 708	705 149	191 464	191 464	**$ 3 439 433**
Maintenance, Repair, Operations (MRO) Goods	446 547	951 103	1 262 033	1 298 356	1 695 721	2 570 847	2 570 847	**$ 10 795 453**
Management and Business Professionals and Administrative Services	10 455	-	1 788 812	123 344	143 658	125 701	125 701	**$ 2 317 672**
Non-Addressable Procurement	-	386 440	344 616	-	-	-	-	**$ 731 056**
Travel, Hospitality and Catering	539 369	389 306	371 437	332 748	265 910	206 160	206 160	**$ 2 311 092**
Supply Chain Management Operations Total	**6 927 741**	**10 892 309**	**13 973 054**	**5 980 780**	**5 712 203**	**4 889 807**	**4 889 807**	**$ 53 265 700**
Grand Total	**$ 6 927 741**	**$ 10 892 309**	**$ 13 981 841**	**$ 6 082 436**	**$ 6 222 503**	**$ 5 711 314**	**$ 5 711 314**	**$ 55 529 459**

Post-Pandemic, Manitoba Hydro will continue to operate from a position of cost containment, rather than cost savings, for many materials and services. Strategies for cost containment include the use of long-term contracts, expediting the review of alternative material, and the use of software to analyze price indices in preparation for negotiation with suppliers regarding price increases.

REFERENCE:

Section 6.9.3, page 47 of 47

PREAMBLE TO IR (IF ANY):

At page number 47, MH provides Figure 6.28, and states:
"Post-Pandemic, Manitoba Hydro will continue to operate from a position of cost containment, rather than cost savings, for many materials and services."

QUESTION:

a) Please expand Figure 6.28 to include both test years.
b) Please explain why MRO goods increase by nearly a million dollars in 2022/23 and 2023/24, and have increased almost six fold since 2017/18.
c) Please identify which categories of materials and services will continue to operate from a position of cost containment, and describe MH plans to achieve cost reductions in the future.

RATIONALE FOR QUESTION:

To fully understand supply chain costs through the test years.

RESPONSE:

d) Please see the table below which is Figure 6.28 expanded to include both Test Years.

	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget	2017/18 - 2024-25 Total
Information Technology and Communication	$ -	$ -	$ 8,787	$ 24,805	$ 381,770	$ 668,581	$ 668,581	$ 668,581	$ 2,421,105
Logistics, Transport & Fleet	-	-	-	84,117	123,467	146,927	146,927	146,927	$ 648,365
Travel, Hospitality and Catering	-	-	-	(7,265)	5,063	6,000	6,000	8,000	$ 17,797
Building, Facility, Construction and Maintenance Services & Goods								250,000	$ 250,000
Procurement Modernization Total	-	-	**8,787**	**101,656**	**510,300**	**821,508**	**821,508**	**1,073,508**	**$ 3,337,266**
Building, Facility, Construction and Maintenance Services & Goods	337,419	503,678	2,106,104	30,681	3,805	257,543	257,543		$ 3,496,774
Information Technology and Communication	250,684	2,026,687	3,855,665	1,724,718	2,192,999	1,349,110	1,349,110	1,349,110	$ 14,098,083
Infrastructure Equipment and Core Components	4,829,494	6,290,761	3,498,843	1,723,224	704,961	188,982	188,982	188,982	$ 17,614,230
Logistics, Transport & Fleet	513,772	344,334	745,544	747,708	705,149	191,464	191,464	177,650	$ 3,617,083
Maintenance, Repair, Operations (MRO) Goods	446,547	951,103	1,262,033	1,298,356	1,695,721	2,570,847	2,570,847	2,570,847	$ 13,366,300
Management and Business Professionals and Administrative Services	10,455	-	1,788,812	123,344	143,658	125,701	125,701	125,701	$ 2,443,373
Non-Addressable Procurement	-	386,440	344,616	-	-	-	-		$ 731,056
Travel, Hospitality and Catering	539,369	389,306	371,437	332,748	265,910	206,160	206,160	152,072	$ 2,463,164
Supply Chain Management Operations Total	**6,927,741**	**10,892,309**	**13,973,054**	**5,980,780**	**5,712,203**	**4,889,807**	**4,889,807**	**4,564,362**	**$ 57,830,062**
Grand Total	**$ 6,927,741**	**$ 10,892,309**	**$ 13,981,841**	**$ 6,082,436**	**$ 6,222,503**	**$ 5,711,314**	**$5,711,314**	**$ 5,637,870**	**$ 61,167,329**

a) Table 6.28 captures the savings associated with specific MRO contracts that were developed through strategic sourcing to drive savings within the Maintenance, Repair, Operations category. This category of procurement was done in four waves: April 2017, November 2017, May 2017 and December 2020. As more contracts were put in place, and items were purchased, the cumulative savings increased. These contracts are a sub-set of the larger MRO category and do not reflect changes in MRO spending overall.

b) The impacts of the pandemic and ongoing challenges associated with the Global Supply Chain have impacted most, if not all, categories within Manitoba Hydro. Disruptions continue to impact commodities, labour and supplies; many of which cannot be forecasted. Some of the more significant disruptors include:

- Logistics and Trucking – labour shortages, increased time for border crossings, and fuel increases have resulted in significant increases and delays on all products/ materials.
- Off-shore procurement – reduced production/capacity has increased demand and costs, demand for PPE increased demand for transportation and congested traffic at ports, which increased delivery time. This impacted not only cost but the ability to receive products, leading to delays in some projects/maintenance.

- Wire and Cable products – impacted by increased metal products, polymer and insulation shortages, and manufacturer shutdowns. Lead times have tripled.
- Transformers – significant variables have led to extensive lead times, including electrical steel being absorbed by the booming international Electric Vehicle market, storms throughout North America driving demand for product (transformers), driver shortages, shipping bottlenecks and labour shortages exasperated an already taxed market.

Manitoba Hydro will continue to look for savings through the Government of Manitoba's Procurement Modernization. In addition, Manitoba Hydro will continue to mitigate cost increases and disruptions to supply and service through the following measures:

- Increased inventory levels for critical supplies
- Increase planning timelines/ forecast to mitigate long lead times/ availability of supply
- Validation of price increases though commodity prices index software
- Ongoing dialogue and forecasted supply/ timelines with suppliers
- Assessing alternative supply options

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(in millions of Canadian dollars)

Note 20 Regulatory deferral balances

	March 31, 2021	Balances arising in the year	Recovery / reversal	March 31, 2022	Remaining recovery / reversal period
					(years)
Regulatory deferral debit balances					
Electric					
DSM programs[1]	307	34	(43)	**298**	1 - 10
Site remediation	43	14	(5)	**52**	1 - 15
Change in depreciation method	240	48	-	**288**	*
Deferred ineligible overhead	129	20	(4)	**145**	1 - 34
Keeyask in-service deferral	16	70	-	**86**	*
Acquisition costs	6	-	-	**6**	9 - 12
Affordable Energy Fund	4	-	-	**4**	**
Loss on retirement or disposal of assets	72	(5)	-	**67**	*
Regulatory costs	2	1	(1)	**2**	1 - 5
Conawapa	342	-	(13)	**329**	26
Gas					
DSM programs	51	10	(10)	**51**	1 - 10
Deferred taxes	14	1	(3)	**12**	7
Site remediation	2	-	(1)	**1**	1 - 15
Loss on retirement or disposal of assets	10	2	(3)	**9**	1 - 5
Change in depreciation method	14	2	-	**16**	*
Regulatory costs	1	-	-	**1**	1 - 5
Change in depreciation rate - meters	1	-	-	**1**	2
Impact of 2019 depreciation study	-	-	-	**-**	*
	1 254	197	(83)	**1 368**	
Regulatory deferral credit balances					
Electric					
DSM deferral	49	-	-	**49**	*
Bipole III deferral	174	-	(77)	**97**	2
Major capital project deferral	71	27	-	**98**	*
Gas					
PGVA	15	(291)	281	**5**	***
Impact of 2014 depreciation study	3	-	(1)	**2**	2
Meter exchange costs	5	-	(5)	**-**	-
	317	(264)	198	**251**	
Net movement in regulatory balances		461	(281)	**180**	

[1] Included in DSM programs is the difference between actual and planned expenditures for electric DSM programs for the fiscal years 2013 to 2017.

* These amounts will be recovered or refunded in future rates in periods to be determined.

** The Affordable Energy Fund is amortized to the consolidated statement of income at the same rate as the provision (Note 28) is drawn down.

*** The PGVA is recovered or refunded in future rates.

(in millions of Canadian dollars)

	March 31, 2020	Balances arising in the year	Recovery / reversal	March 31, 2021	Remaining recovery / reversal period
					(years)
Regulatory deferral debit balances					
Electric					
DSM programs[1]	322	28	(43)	307	1 - 10
Site remediation	38	10	(5)	43	1 - 15
Change in depreciation method	199	41	-	240	*
Deferred ineligible overhead	113	20	(4)	129	1 - 34
Keeyask in-service deferral	-	16	-	16	*
Acquisition costs	7	-	(1)	6	10 - 13
Affordable Energy Fund	4	-	-	4	**
Loss on retirement or disposal of assets	36	36	-	72	*
Regulatory costs	7	-	(5)	2	1 - 5
Conawapa	354	-	(12)	342	27
Gas					
DSM programs	54	7	(10)	51	1 - 10
Deferred taxes	16	1	(3)	14	8
Site remediation	2	-	-	2	1 - 15
Loss on retirement or disposal of assets	12	1	(3)	10	1 - 5
Change in depreciation method	12	2	-	14	*
Regulatory costs	2	1	(2)	1	1 - 5
Change in depreciation rate - meters	1	-	-	1	3
Impact of 2019 depreciation study	-	-	-	-	*
	1 179	163	(88)	1 254	
Regulatory deferral credit balances					
Electric					
DSM deferral	49	-	-	49	*
Bipole III deferral	252	-	(78)	174	3
Major capital project deferral	33	38	-	71	*
Gas					
PGVA	18	(195)	192	15	***
Impact of 2014 depreciation study	4	-	(1)	3	3
Meter exchange costs	11	-	(6)	5	1
	367	(157)	107	317	
Net movement in regulatory balances		320	(195)	125	

[1] Included in DSM programs is the difference between actual and planned expenditures for electric DSM programs for the fiscal years 2013 to 2017.

* These amounts will be recovered or refunded in future rates in periods to be determined.

** The Affordable Energy Fund is amortized to the consolidated statement of income at the same rate as the provision (Note 28) is drawn down.

*** The PGVA is recovered or refunded in future rates.

The balances arising in the year consist of additions to regulatory deferral balances. The recovery/reversal consists of amounts recovered from customers in rates through the amortization of existing regulatory balances or rate riders. The net impact of these transactions results in the net movement in regulatory deferral balances on the consolidated statement of income.

Balances arising in the year include $1 million (2021 – $1 million) for carrying costs on deferred taxes, the Affordable Energy Fund and the PGVA.

The regulatory deferral debit balances of the corporation consist of the following:

DSM program expenditures are incurred for energy conservation programs to encourage residential, commercial and industrial customers to use energy more efficiently. Effective April 1, 2020, Manitoba Hydro transitioned certain DSM programs to Efficiency Manitoba Inc. (Note 32). Expenditures related to these programs are included in this deferral balance.

Site remediation expenditures are incurred for the remediation of contaminated corporate facilities and diesel generating sites.

Change in depreciation method represents the cumulative annual difference in depreciation expense between the ASL method of depreciation as applied by Manitoba Hydro prior to its transition to IFRS and the ELG method as applied by Manitoba Hydro under IFRS.

Deferred ineligible overhead is the cumulative annual difference in overhead capitalized for financial reporting purposes under IFRS and overhead capitalized for rate-setting purposes. As per PUB Order 152/19 Centra ceased capitalizing ineligible overhead beginning in April 2019 and the balance in the deferral account was recognized as a period cost in fiscal 2019-20.

Acquisition costs relate to costs associated with the acquisition of Centra and Minell (July 1999) and Winnipeg Hydro (September 2002).

The Affordable Energy Fund relates to future DSM expenditures in connection with *The Winter Heating Cost Control Act*. The intent of the Affordable Energy Fund is to provide funding for projects that would not otherwise be funded by DSM programs.

Loss on retirement or disposal of assets is the net asset retirement losses for those assets retired prior to or subsequent to reaching their expected service life as determined under the ELG method of depreciation.

Keeyask in-service deferral represents the difference in depreciation expense and interest expense between the method applied by the corporation under IFRS for financial reporting purposes and the per unit of output method used for rate-setting purposes.

Regulatory costs are those incurred as a result of electric and gas regulatory hearings.

Conawapa relates to the one-time transfer of historical costs incurred in relation to the Conawapa Generating Station project which has been discontinued.

Deferred taxes reflect the taxes paid by Centra (July 1999) as a result of its change to non-taxable status upon acquisition by Manitoba Hydro.

Change in depreciation rate on meters represents the difference between depreciation on gas meters between the 20-year rate used for financial reporting purposes and the 25-year rate used for rate-setting purposes.

Impact of 2019 depreciation study represents the cumulative unamortized difference in depreciation between the ASL method based on the 2014 depreciation study and the ASL method based on the 2019 depreciation study. The PUB requires the use of 2014 ASL depreciation rates for Centra for rate-setting purposes pending review at the next gas regulatory proceeding. The balance at March 31, 2022 is less than $1 million (2021 – less than $1 million).

The regulatory deferral credit balances of the corporation consist of the following:

DSM deferral – In Orders 43/13 and 85/13, the PUB directed that the differences between actual and planned spending on electric programs for the 2013 and 2014 fiscal years be recognized as a liability. In Order 73/15, the PUB further directed the same treatment for 2015 and 2016 spending as well as for 2017. The cumulative differences have been recorded as a regulatory deferral credit balance with an offsetting balance recorded as a regulatory deferral debit balance. In Order 59/18, the PUB directed Manitoba Hydro to discontinue the deferral of differences between actual and planned DSM spending beginning fiscal 2018.

Bipole III deferral represents amounts collected from customers set aside to mitigate rate increases when Bipole III comes into service and reflects rate increases of 1.50% approved by the PUB effective May 1, 2013, 0.75% effective May 1, 2014, 2.15% effective August 1, 2015, 3.36% effective August 1, 2016 and 3.36% effective August 1, 2017.

Major capital project deferral represents amounts collected from customers from the June 1, 2019 2.5% rate increase that is set aside to aid in mitigating future rate increases when Keeyask Generating Station and other major capital projects come into service. In Order 9/22, the PUB directed Manitoba Hydro to cease funding the major capital project deferral account effective December 31, 2021.

Purchased gas variance accounts are maintained to recover/refund differences between the actual cost of gas and the cost of gas incorporated into rates charged to customers as approved by the PUB. Purchased gas variance accounts are reflected as a regulatory debit or credit depending if the amounts represent a recovery from or a refund to the customers, respectively.

(in millions of Canadian dollars)

Impact of 2014 depreciation study represents the cumulative unamortized difference in depreciation between the ASL method based on the 2010 depreciation study and the ASL method based on the 2014 depreciation study. The annual difference in depreciation for ASL rates based on the 2010 and 2014 depreciation studies from 2014-15 through 2018-19 shall be amortized over five years commencing April 1, 2019.

Meter exchange costs represents the liability established in accordance with PUB Order 152/19. Centra Gas was directed to refund $16 million to customers related to expenditures on meter exchange costs which resulted in the establishment of a regulated liability. The cumulative balance in this account was amortized over three years commencing April 1, 2019.

Note 21 Long-term debt

	Advances from the Province	Manitoba Hydro-Electric Board Bonds	Other*	Total
Balance, April 1, 2020	23 078	121	88	23 287
Issues	2 550	-	50	2 600
Maturities	(1 532)	-	-	(1 532)
Foreign exchange adjustments	(159)	-	(5)	(164)
Amortization of net premiums and transaction costs	-	-	(5)	(5)
Balance, March 31, 2021	23 937	121	128	24 186
Issues	1 575	-	(70)	1 505
Maturities	(951)	(3)	-	(954)
Foreign exchange adjustments	27	-	-	27
Amortization of net premiums and transaction costs	-	-	(6)	(6)
	24 588	118	52	24 758
Less: current portion	(1 141)	-	-	(1 141)
Balance, March 31, 2022	**23 447**	**118**	**52**	**23 617**

*Other includes adjustments to carrying value of dual currency bonds, transaction costs and debt discounts and premiums.

During the year, the corporation issued long-term financing of $1 505 million (2021 – $2 600 million). The current year financing was in the form of provincial advances with the majority at fixed interest rates.

Included in the current portion of long-term debt are $1 141 million (2021 – $1 121 million) of debt maturities.

Long-term debt is guaranteed by the Province of Manitoba, with the exception of Manitoba Hydro-Electric Board Bonds in the amount of $58 million (2021 – $61 million) issued for mitigation projects.

- Change in depreciation method represents the cumulative annual difference in depreciation expense between the Canadian Generally Accepted Accounting Principles Average Service Life method of depreciation as applied by Manitoba Hydro prior to its transition to IFRS and the Equal Life Group ("ELG") method as applied by Manitoba Hydro under IFRS;
- Deferred ineligible overhead is the cumulative annual difference in overhead capitalized for financial reporting purposes under IFRS and overhead capitalized for rate-setting purposes;
- Acquisition costs related to costs associated with the acquisition of Centra and Minell (July 1999) and Winnipeg Hydro (September 2002);
- The Affordable Energy Fund relates to future DSM expenditures in connection with The Winter Heating Cost Control Act. The intent of the Affordable Energy Fund is to provide funding for projects that would not otherwise be funded by DSM programs.
- Loss on retirement or disposal of assets is the net asset retirement losses for those assets retired prior to or subsequent to reaching their expected service life as determined under the ELG method of depreciation;
- Keeyask in-service deferral representing the difference in depreciation expense and interest expense between the method applied by the corporation under IFRS for financial reporting purposes and the per unit of output method used for rate-setting purposes;
- Regulatory costs are those incurred as a result of regulatory hearings and other regulatory applications and compliance matters; and,
- Conawapa deferral represents the one-time transfer of historical costs incurred in relation to the Conawapa Generating Station project which has been discontinued.

The regulatory deferral credit balances of the electric segment consist of the following:

- DSM deferral – In Orders 43/13 and 85/13, the PUB directed that the differences between actual and planned spending on electric programs for the 2013 and 2014 fiscal years be recognized as a liability. In Order 73/15, the PUB further directed the same treatment for 2015-2017. The cumulative differences have been recorded as a regulatory deferral credit balance with an offsetting balance recorded as a regulatory deferral debit balance. In Order 59/18, the PUB directed

Manitoba Hydro to discontinue the deferral of differences between actual and planned DSM spending beginning fiscal 2018;

- Bipole III deferral represents amounts collected from customers set aside to mitigate rate increases when Bipole III comes into service and reflects rate increases of 1.50% approved by the PUB effective May 1, 2013, 0.75% effective May 1, 2014, 2.15% effective August 1, 2015, 3.36% effective August 1, 2016 and 3.36% effective August 1, 2017; and,
- Major capital project deferral represents amounts collected from customers from the June 1, 2019 2.5% rate increase that was set aside to aid in mitigating future rate increases when Keeyask Generating Station and other major capital projects come into service. In Order 9/22, the PUB directed Manitoba Hydro to cease funding the major capital project deferral account effective December 31, 2021.

Figure 4.21 below provides a summary of the approvals being sought by Manitoba Hydro pertaining to regulatory deferral accounts and included in the Amended Financial Forecast Scenario.

Figure 4.21 Summary of PUB Approvals Requested Pertaining to Regulatory Deferral Accounts

Description	Proposal
Endorsement for the established Keeyask in-service deferral and an amortization period	Begin amortizing the cumulative deferral balance into income on a straight-line basis over a period of 106 years effective September 1, 2023.
The establishment and amortization of a new regulatory deferral for SAP S/4HANA CCA	Establish a regulatory deferral account to record the annual O&A expenses related to the implementation of SAP S/4HANA CCA and to amortize the deferred balance for rate setting purposes over a period of 10 years subsequent to the actual in-service dates.

Description	Proposal
Approvals being sought pertaining to the request to accept IFRS ELG for rate setting purposes	Approve IFRS ELG as the method for determining depreciation for rate setting purposes. Approve an amortization period for the change in depreciation method regulatory deferral and begin amortizing the balance into income on a straight-line basis over a period of 30 years for Manitoba Hydro, 42 years for Wuskwatim Power Limited Partnership ("WPLP") and 62 years for Keeyask HydroPower Limited Partnership ("KHLP") effective September 1, 2023, and approve the cessation of additions to the deferral. Approve an amortization period for the loss on retirement or disposal of assets and begin amortizing the balance into income on a straight-line basis over a period of 26 years for Manitoba Hydro, 27 years for WPLP and 58 years for KHLP effective September 1, 2023, and approve the cessation of additions to the deferral. Approve a new regulatory deferral account (IFRS depreciation phase-in) and amortization period to phase-in the transition to the IFRS ELG to smooth rate impacts to customers. Manitoba Hydro is proposing to defer the increase in total depreciation expense (i.e. compared to CGAAP ASL) commencing September 1, 2023 with annual reductions in the deferral amount over a 15-year period. Manitoba is recommending the deferred costs be amortized into income on a straight-line basis over a period of 30-years effective October 1, 2023.
Amortization period for the Major capital deferral account	Approval to begin amortizing the cumulative deferred balance of the Major Capital deferral into income on a straight-line basis over a period of 2 years effective April 1, 2025.
Write off of the DSM deferral debit and credit accounts	Approval to write off the offsetting balances in the existing DSM deferral accounts effective September 1, 2023. There is no impact to forecasted net income if this request is approved as the balances in the account simply cancel each other out.

For more details related to the approvals being sought pertaining to regulatory deferral accounts, please see Appendix 4.3 (Amended).

Figure 4.22 below shows the net movement in regulatory deferral balances over the forecast period.

Figure 4.22 Net Movement in Regulatory Deferral Balances

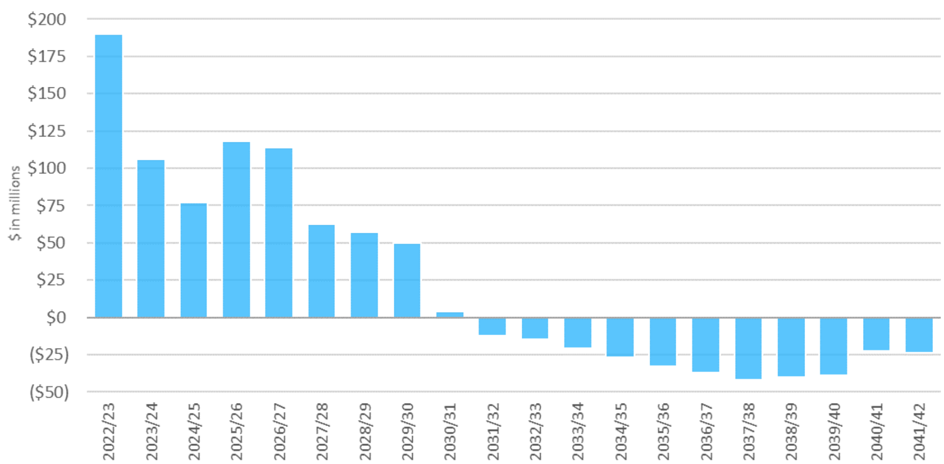


Figure 4.23 shows the regulatory debit balance over the forecast period while Figure 4.24 shows the regulatory credit balance.

Figure 4.23 Regulatory Debit Balance

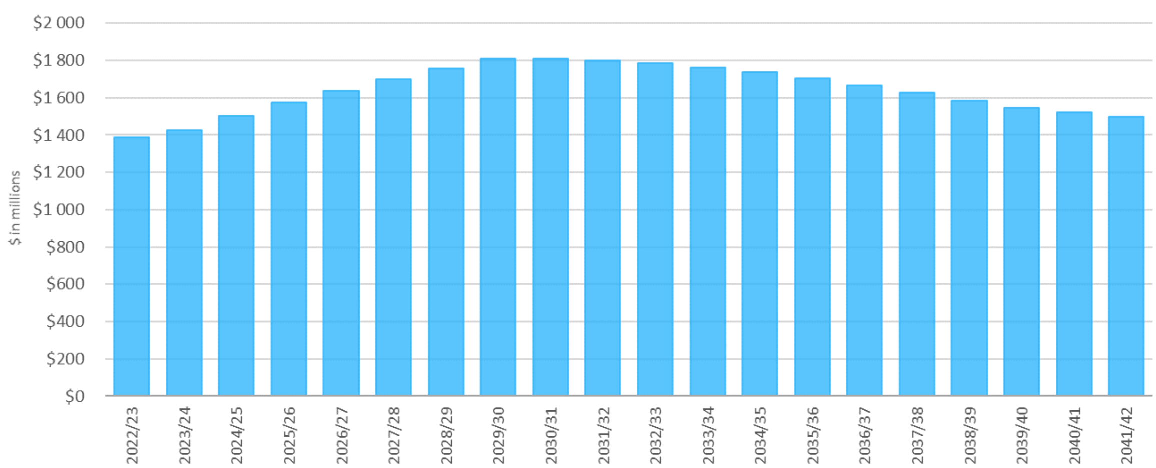
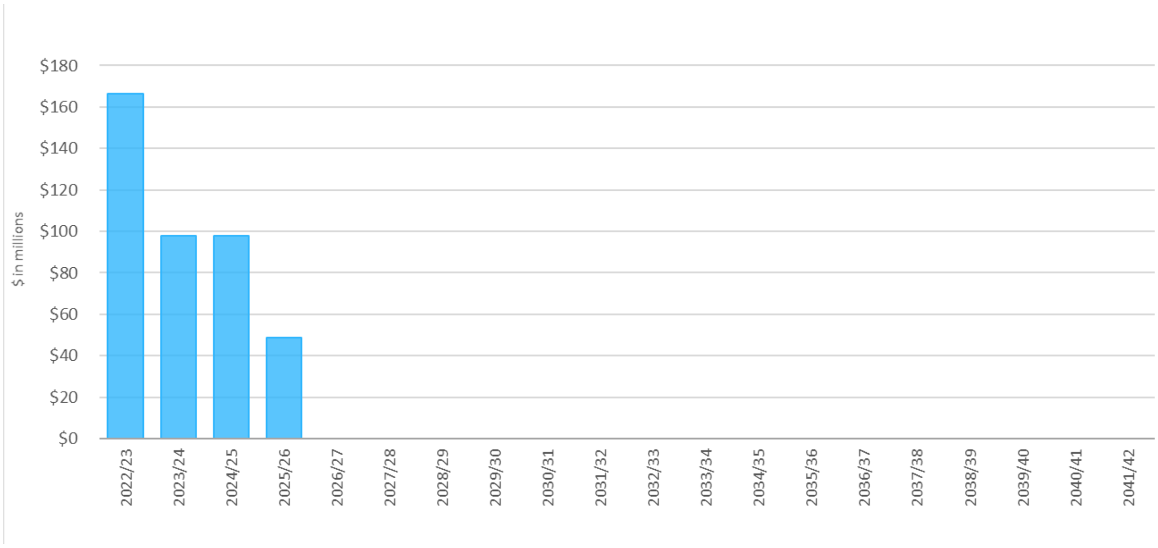


Figure 4.24 Regulatory Credit Balance



4.2.13 Net Debt Balance

Figure 4.25 shows the net debt balance over the planning horizon, while Figure 4.26 shows the annual change to the net debt balance. The reduced provincial debt guarantee and water rental fees effective April 1, 2022 contribute towards a $950 million reduction to the net debt balance over the first three years of the forecast. Cash flow deficits over the planning horizon total approximately $190 million which minimizes the amount of new incremental borrowings and the growth of the net debt balance. Following the period of cash deficits (2027/28 to 2030/31), surplus cash flow is projected to begin again in 2031/32 and continue through 2041/42 with the exception of 2036/37. This surplus cash flow results in a $1.5 billion reduction to the net debt balance by the end of the planning horizon.

2018/19 Actual vs. 2017/18 Actual

No change.

2019/20 Actual vs. 2018/19 Actual

No significant change.

2020/21 Actual vs. 2019/20 Actual

No significant change.

2021/22 Actual vs. 2020/21 Actual

The slight decrease in the 2021/22 corporation allocation was due to a reduction in the depreciation of the capital asset fair market value write up as a result of a portion of the assets becoming fully depreciation in 2020/21.

2022/23 Forecast vs. 2021/22 Actual

The decrease in Corporate Allocation in the 2022/23 Forecast is due to the reduction of the PGF fee from 1.0% to 0.5% effective April 1, 2022 as announced by the Province of Manitoba on November 23, 2022.

2023/24 Preliminary Budget vs. 2022/23 Forecast

No change.

2024/25 Preliminary Budget vs. 2023/24 Preliminary Budget

No change.

1.2.12 Net Movement in Regulatory Balances

IFRS 14 Regulatory Deferral Accounts interim standard provides guidance on the accounting for the effects of rate regulation under IFRS. Regulatory deferral account balances usually represent timing differences between the recognition of items of income or expense for regulatory purposes and the recognition of those items for financial reporting purposes. The standard requires net income to be reported both before and after the impacts of rate-regulation. As a result, additions to regulatory deferral balances are initially expensed in their respective financial statement line items and amortization pertaining to these items is removed from depreciation and amortization. These additions are deferred and amortization is recognized in the net movement in regulatory balances. This presentation is intended to isolate the movement of regulatory deferral accounts to allow comparability with those entities not applying IFRS 14.

Figure 27 depicts and Figure 28 provides a detailed schedule of net movement in regulatory balances for 2017/18 to 2024/25.

Figure 27 Net Movement in Regulatory Balances

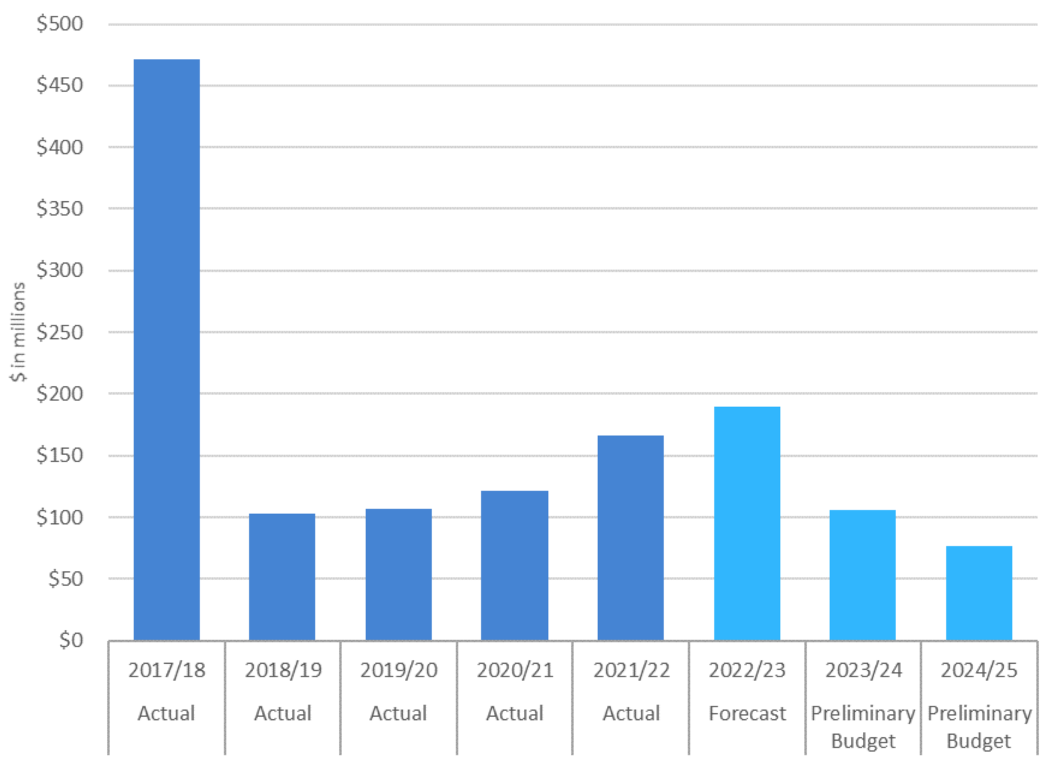


Figure 28 Net Movement in Regulatory Balances Breakdown

MANITOBA HYDRO
NET MOVEMENT IN REGULATORY BALANCES
(000's)

	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
Additions to regulatory deferral accounts								
DSM programs	$63 667	$65 110	$52 465	$27 786	$34 533	$60 300	$55 217	$56 177
Site remediation	1 221	11 826	9 137	9 920	13 059	20 239	12 837	5 658
Regulatory costs	10 136	1 874	981	561	928	3 007	2 720	2 720
Affordable Energy Fund	76	99	103	43	46	-	-	-
Acquisition costs	-	-	-	-	-	-	-	-
Conawapa	379 204	-	-	-	-	-	-	-
Change in depreciation method	32 270	36 273	39 358	41 392	48 034	55 047	22 784	-
Loss on retirement or disposal of assets	8 534	10 566	6 724	35 926	(4 504)	3 000	1 250	-
IFRS depreciation phase-in	-	-	-	-	-	-	40 833	65 000
Deferred ineligible overhead	20 200	20 200	20 200	20 200	20 200	20 200	20 200	20 200
Keeyask in-service deferral	-	-	-	15 935	70 187	18 268	-	-
Bipole III deferral	-	(39 032)	-	-	-	-	-	-
Major capital project deferral	-	-	(32 514)	(38 003)	(27 174)	-	-	-
SAP S/4HANA CCA	-	-	-	-	-	-	12 486	22 939
Common cost allocation - transfer to gas	-	-	-	-	-	-	-	-
DSM deferral debit balance	-	-	-	-	-	-	(48 800)	-
DSM deferral credit balance	-	-	-	-	-	-	48 800	-
Total additions to regulatory deferral accounts	515 308	106 916	96 454	113 760	155 309	180 061	168 328	172 693
Amortization of regulatory deferral accounts								
DSM programs	(35 773)	(37 341)	(40 452)	(42 544)	(42 483)	(43 204)	(46 558)	(49 482)
Site remediation	(3 497)	(3 863)	(4 567)	(4 707)	(4 842)	(5 555)	(6 348)	(6 851)
Regulatory costs	(1 520)	(4 326)	(5 567)	(5 303)	(1 716)	(595)	(978)	(2 003)
Affordable Energy Fund	(197)	(236)	(186)	(87)	(57)	-	-	-
Acquisition costs	(692)	(692)	(692)	(692)	(692)	(692)	(692)	(692)
Conawapa	-	(12 627)	(12 627)	(12 627)	(12 627)	(12 627)	(12 627)	(12 627)
Change in depreciation method	-	-	-	-	-	-	(6 838)	(11 723)
Loss on retirement or disposal of assets	-	-	-	-	-	-	(1 602)	(2 747)
IFRS depreciation phase-in	-	-	-	-	-	-	(340)	(2 444)
Deferred ineligible overhead	(2 079)	(2 673)	(3 268)	(3 862)	(4 456)	(5 050)	(5 644)	(6 238)
Keeyask in-service deferral	-	-	-	-	-	-	(574)	(985)
Bipole III deferral	-	57 424	77 398	77 398	77 398	77 398	19 974	-
Major capital project deferral	-	-	-	-	-	-	-	-
SAP S/4HANA CCA	-	-	-	-	-	-	-	-
Common cost allocation - transfer to gas	17	18	21	23	27	-	-	-
DSM deferral debit balance	-	-	-	-	-	-	-	-
DSM deferral credit balance	-	-	-	-	-	-	-	-
Total amortization of regulatory deferral accounts	(43 741)	(4 316)	10 060	7 599	10 552	9 675	(62 229)	(95 793)
Total net movement in regulatory balances	$471 567	$102 600	$106 514	$121 359	$165 861	$189 736	$106 098	$76 900
Year over year $ change		($368 967)	$3 914	$14 845	$44 502	$23 875	($83 638)	($29 198)
Year over year % change		-78%	4%	14%	37%	14%	-44%	-28%

The following provides a description of the amounts included in net movement in regulatory balances:

DSM program expenditures are incurred for energy conservation programs to encourage residential, commercial and industrial customers to use energy more efficiently. Effective April 1, 2020, Manitoba Hydro transitioned certain DSM programs to Efficiency Manitoba Inc. Expenditures related to these programs are included in the deferral balance.

Site remediation expenditures are incurred for the remediation of contaminated corporate facilities and diesel generating sites.

Regulatory costs are those incurred as a result of electric regulatory hearings.

The Affordable Energy Fund is related to future DSM expenditures in connection with The Winter Heating Cost Control Act. The intent of the Affordable Energy Fund is to provide funding for projects that would not otherwise be funded by DSM programs. The Affordable Energy Fund ensures that people living in rural or northern Manitoba and those with low incomes as well as seniors have access to the programs and services regardless of the energy source they use to heat their homes.

Acquisition costs relate to costs associated with the acquisition of Winnipeg Hydro (September 2002).

Conawapa deferral relates to the one-time transfer of historical costs incurred in relation to the Conawapa Generating Station project which has been discontinued.

Change in depreciation method represents the cumulative annual difference in depreciation expense between the Canadian Generally Accepted Accounting Principles (CGAAP) ASL method of depreciation as applied by Manitoba Hydro prior to its transition to IFRS and the ELG method as applied by Manitoba Hydro under IFRS.

Loss on retirement or disposal of assets is the net asset retirement losses for those assets retired prior to or subsequent to reaching their expected service life as determined under IFRS ELG method of depreciation.

IFRS depreciation phase-in relates to the transition in depreciation expense and recognition of gains and losses on disposition of assets from CGAAP to IFRS.

Deferred ineligible overhead is the cumulative annual difference in overhead capitalized for financial reporting purposes under IFRS and overhead capitalized for rate setting purposes.

Keeyask in-service deferral represents the difference in depreciation expense and interest expense between the method applied by the corporation under IFRS for financial reporting purposes and the per unit of output method used for rate-setting purposes.

Bipole III relates to amounts collected from customers set aside to mitigate rate increases when Bipole III came into service in July 2018.

Major capital project deferral relates to amounts collected from customers that was set aside to aid in mitigating future rate increases when Keeyask Generating Station and other major capital projects came into service.

SAP S/4HANA cloud computing arrangements (CCA) relates to annual expenses of ineligible capital costs related to the implementation of SAP S/4HANA.

The following sections highlight the year over year changes in net movement in regulatory balances from 2017/18 through 2024/25:

2018/19 Actual vs. 2017/18 Actual

The decrease in 2018/19 net movement was primarily due to the Conawapa transfer of $379 million which occurred in 2017/18 partially offset by the reclassification of the Bipole III deferral to a regulatory deferral credit balance in 2018/19, net of amortization.

2019/20 Actual vs. 2018/19 Actual

The increase in 2019/20 net movement was primarily due to cessation of the Bipole III deferral as Bipole III went into service in 2018/19 and amortization commenced, partially offset by the establishment of the major capital project deferral and lower DSM spending.

2020/21 Actual vs. 2019/20 Actual

The increase in 2020/21 net movement was primarily due to higher losses on disposal of property, plant and equipment largely due to the retirement of the Selkirk Generating Station and the establishment of the Keeyask in-service deferral partially offset by lower DSM spending.

2021/22 Actual vs. 2020/21 Actual

The increase in 2021/22 net movement was primarily due to the higher additions to the Keeyask in-service deferral as the remaining six units went into service, lower additions to the major capital project deferral (which ceased December 31, 2021) and higher DSM spending. These increases were partially offset by gains on the disposal of property, plant and equipment compared to losses in 2020/21 related to the retirement of the Selkirk Generating Station.

2022/23 Forecast vs. 2021/22 Actual

The forecast increase is primarily due to projected increase in DSM program spending and site remediation work on 2 & 8 Mile Channel Cleanup, no additions to the major capital deferral (which ceased December 31, 2021) offset by a decrease in the Keeyask in-service deferral as all remaining units were placed into service in 2021/22.

2023/24 Preliminary Budget vs. 2022/23 Forecast

The 2023/24 Preliminary Budget decrease is primarily due to the Bipole III deferral becoming fully amortized during the year as per board order 59/18 and no additions planned for the Keeyask in-service deferral, offset by additions for SAP S/4HANA CCA.

2024/25 Preliminary Budget vs. 2023/24 Preliminary Budget

The 2024/25 Preliminary Budget decrease is primarily due to the Bipole III deferral becoming fully amortized in fiscal 2023/24 as per board order 59/18 offset by additions for SAP S/4HANA CCA.

1.2.13 Non-Controlling Interests

Non-controlling interests represent the ownership interests attributable to third parties in Manitoba Hydro's limited partnerships – the Wuskwatim Power Limited Partnership (WPLP) and the Keeyask Hydropower Limited Partnership (KHLP).

Manitoba Hydro entered into the WPLP with Taskinigahp Power Corporation ("TPC") which is beneficially owned by Nisichawayasihk Cree Nation ("NCN"). NCN acquired a 33% interest in WPLP. The General Partner, which is a wholly owned subsidiary of Manitoba Hydro, also owns a nominal interest in WPLP. The generating station and associated transmission was placed into service during the 2012/13 year. Manitoba Hydro operates and maintains the Wuskwatim generating station and purchases all of the output under the power purchase agreement with WPLP.

REFERENCE:

Appendix 4.3, Section 1.4.1.

PREAMBLE TO IR (IF ANY):

MH is requesting PUB endorsement of the Keeyask In-Service deferral account and an amortization period of 106 years effective September 1, 2023, in Section 1.4.1.

QUESTION:

a) Please explain MH's rationale for establishing the Keeyask In-Service deferral account in 2020/21 under IFRS 14, without prior PUB approval.
b) Please provide a schedule with the breakdown of the components of the additions to the Keeyask In-Service deferral account into depreciation and finance expense between 2020/21 and 2022/23 and demonstrates how the deferred amounts of depreciation and finance expense were calculated.

RESPONSE:

a) Manitoba Hydro established the Keeyask in-service deferral account under IFRS 14 based on the principle of past practice. As indicated in Appendix 4.3 Section 1.4.1 for rate setting purposes, Manitoba Hydro established the deferral to provide consistency in the accounting treatment for the in-service of Keeyask with the in-service of past generating stations. Under IFRS 14 an item may be deferred on the Statement of Financial Position if it is included, or is expected to be included, by the rate regulator in establishing the rate(s) that can be charged to customers in the future. In this application, Manitoba Hydro is seeking approval for this deferral account.

b) Please see PUB/MH I-112 for a breakdown of the additions to the Keeyask In-Service deferral account by depreciation and finance expense. The depreciation expense portion of the Keeyask in-service deferral was calculated by determining the difference between the depreciation expense posted each month for assets placed in service as they became used and useful compared to the depreciation expense that would have been posted if an equal amount of costs had been placed in service with each unit. The finance expense portion of the Keeyask in-service deferral was calculated by comparing the percentage of spent costs remaining in capital work in progress (CWIP) under the used and useful methodology compared to the percentage which would have remained in CWIP under a per unit in service approach. In addition, the regulatory deferral amounts pertaining to KHLP were reduced by the non-controlling interest, as only the Manitoba Hydro owned portion is subject to rate regulation.

REFERENCE:

Appendix 4.3, page 10

PREAMBLE TO IR (IF ANY):

Figure 1 shows an amount of $104 million for “Write-off Keeyask In-Service Deferral”

QUESTION:

Please provide a continuity schedule showing the accumulation of the balance in this account, including separate identification of any interest amounts.

RESPONSE:

Figure 1 below provides a continuity schedule showing the accumulation of the balance in the Keeyask in-service deferral.

Figure 1 Keeyask In-Service Deferral

Manitoba Hydro Consolidated Electric Operations
Keeyask In-Service Deferral
(in millions)

	Actual 2020/21	Actual 2021/22	Forecast 2022/23	Total
Keeyask Deferral (Depr) - Additions	$ 3	$ 11	$ 3	$ 17
Keeyask Deferral (Finance Expense) - Additions	13	59	15	87
Keeyask in-service deferral	**$ 16**	**$ 70**	**$ 18**	**$ 104**

REFERENCE:

Appendix 4.3, Section 1.4.19, Figure 18, pg. 33.

PREAMBLE TO IR (IF ANY):

MH is requesting PUB approval of a two-year amortization period (2025/26 and 2026/27) for the Major Capital Projects deferral account, in Section 1.4.19.

QUESTION:

a) Please confirm that the purpose of the Major Capital Projects deferral account was to smooth-in the revenue requirement impacts of the major capital projects. If not confirmed, please explain MH's understanding of the purpose of this deferral account.
b) Please confirm that the Bipole III deferral account had a similar purpose and the PUB approved a five-year amortization period for that deferral account. If not confirmed, please explain how MH views the Bipole III deferral account as having a different purpose that the Major Capital Projects deferral account.
c) Please explain why MH is proposing a two-year amortization of the Major Capital Projects deferral account when it is concerned about the level of net income in the 10 years subsequent to the 2024/25 Test Year.
d) Please provide a schedule of net income similar to Figure 16 on page 33 of Appendix 4.3 that assumes a five-year amortization of the Major Capital Projects deferral account.
e) Considering that (1) MH is forecasting net income in 2022/23 to 2024/25 of approximately $1.417 billion before any rate increases proposed for 2023/24 and 2024/25 and (2) MH is concerned about the level of net income in the 10 years subsequent to the 2024/25 Test Year – please explain if MH considered asking PUB approval to add any rate increases approved by the PUB in the Test Years and all or a portion of the reduction in payments to government from 2022/23 to 2024/25 to the Major Capital deferral account to be amortized over the 10-year period from 2025/26 to 2034/35. Please provide MH's views of the pro's and con's of such a proposal.
f) Please provide a schedule of net income similar to Figure 16 on page 33 of Appendix 4.3 that assumes (1) the addition of the $98 million of additional domestic revenue that is requested in 2023/24 and 2024/25 to the Major Capital Projects deferral account (2) the

addition of 50% of the reductions in payments to government from 2022/23 to 2024/25 to the Major Capital Projects deferral account and (3) the amortization of the resulting balance of the Major Capital Projects deferral account over a 10-year period from 2025/26 to 2034/35. Please provide an MFR 21 that reflects this scenario.

g) Please provide a schedule of net income similar to Figure 16 on page 33 of Appendix 4.3 that assumes (1) the addition of the $98 million of additional domestic revenue that is requested in 2023/24 and 2024/25 to the Major Capital Projects deferral account (2) the addition of 100% of the reductions in payments to government from 2022/23 to 2024/25 to the Major Capital Projects deferral account and (3) the amortization of the resulting balance of the Major Capital Projects deferral account over a 10-year period from 2025/26 to 2034/35. Please provide an MFR 21 that reflects this scenario.

RESPONSE:

a) The major capital deferral account was established to smooth-in the revenue requirement impacts when the Keeyask Generating Station and other major capital projects come into service and mitigate the impact to rates.

b) The Bipole III deferral account was also established to set aside revenue to mitigate customer rate increases when Bipole III was placed in-service. The two deferral accounts are similar.

c) Manitoba Hydro proposed a two-year amortization period for the major capital deferral account as this is comparable to the timeframe over which revenues in this account were collected from customers. The two-year amortization period also contributes to reducing the impact to the revenue requirement associated with Keeyask and the other major capital projects coming into service, thereby mitigating the impact to customer rates, as originally intended when the deferral account was established.

While Manitoba Hydro recommended a 2-year amortization, alternative amortization periods would also support smoothing-in of the revenue requirement impacts of Keeyask and the other major capital projects. The impact on the revenue requirement and the impact to customer rates would vary depending on the amortization period applied.

d) A revised version of Figure 16 from Appendix 4.3 that assumes the Major capital deferral account is amortized over 5 years has been provided below.

Impact to Net Income **Amortization of Major Capital Deferral Account** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income before amortization of Major capital deferral	$ 751	$ 469	$ 295	$ 101	$ 117	$ 97	$ 92	$ 111	$ 105	$ 169
Amortization of Major capital deferral				20	20	20	20	20		
Net Income including amortization of Major capital deferral	**$ 751**	**$ 469**	**$ 295**	**$ 120**	**$ 137**	**$ 117**	**$ 112**	**$ 130**	**$ 105**	**$ 169**

e) Please see the analysis below in response to Coalition/MH I-42f. Under that scenario 50% of the reductions to payments to government between 2022/23 and 2024/25 are deferred and placed in the major capital deferral account with the resulting combined balance at March 31, 2025 amortized over 10 years from 2025/26 to 2034/35.

Manitoba Hydro has not considered deferring either revenue from potential rate increases granted in the 2023/24 and 2024/25 Test Years or a portion of the reduction in government payments into the major capital deferral account. The deferral of rate increases or a portion of the reduction in government payments could support the smoothing of net income in certain years by changing the timing associated with recognizing the revenue or cost savings. However, a deferral of these amounts does not change the timing of the cash inflows associated with them and does not change the fact that these amounts will ultimately be recognized into retained earnings. As shown regarding deferral of 50% of the reductions in payment to government in part f) below, deferral does not result in changes to the net debt balance over the forecast period or retained earnings levels by the end of the forecast period. As a result, it has virtually no impact on the debt ratio and therefore does not impact Manitoba Hydro's ability to meet the Debt Ratio Targets as defined by *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act.*

Additionally, as outlined in Tab 3 (Amended) of Manitoba Hydro's Application, the 2% rate path proposed by Manitoba Hydro is already intended to provide predictable annual rate increases and provide rate smoothing that allows years with more favorable financial results, such as in 2022/23 and in 2023/24, to be offset against years where financial results are below forecast. Manitoba Hydro's response to COALITION/MH I-38 contains further details on Manitoba Hydro's view of and criteria applied when considering new regulatory deferral accounts. Please also refer to Appendix 4.3 of Manitoba Hydro's Application.

f) Table 1 below displays a continuity of the major capital projects deferral account that assumes 50% of the reductions to payments to government between 2022/23 and 2024/25 are deferred with the resulting combined balance at March 31, 2025 amortized over 10 years from 2025/26 to 2034/35.

Table 1

Government Payment Savings (in millions)	**2022/23**	**2023/24**	**2024/25**	**Total**
Finance Expense	$116	$115	$115	$346
Water Rentals	$68	$66	$63	$197
Total	$184	$180	$178	$543

Amount to be Deferred (50%) (in millions)	**2022/23**	**2023/24**	**2024/25**	**Total**
Finance Expense	$58	$57	$58	$173
Water Rentals	$34	$33	$31	$99
Total	$92	$90	$89	$272

Major Capital Reserve Continuity (in millions)	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**
Major Capital Reserve Account OB	$98	$190	$280	$369	$332	$295	$258	$222	$185	$148	$111	$74	$37
Finance Expense Govt Pmts	$58	$57	$58	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Rentals Govt Pmts	$34	$33	$31	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amortization of Major Capital Reserve Account	$0	$0	$0	($37)	($37)	($37)	($37)	($37)	($37)	($37)	($37)	($37)	($37)
Major Capital Reserve Account CB	$190	$280	$369	$332	$295	$258	$222	$185	$148	$111	$74	$37	$0

As shown in Table 1 above, 50% of the reduction to payments to government between 2022/23 and 2024/25 total $272 million. The $272 million combined with the $98 million currently in the major capital projects deferral account total $369 million, which is amortized into earnings on a straight-line basis over ten years at $37 million per year.

Changing only the assumptions related to major capital projects deferral account, Figure 1 and Figure 2 below compare the impacts of the proposed use of the major capital projects deferral account with what was assumed in the Amended Financial Forecast Scenario. As shown in Figure 1, the proposal results in a lower retained earnings balance from 2022/23 until 2035/36 at which point the retained earnings balances are the same for the remainder of the forecast period. As shown in Figure 2, the net debt balance under the Amended Financial Forecast Scenario and under the proposal are nearly identical in each year of the forecast.

Figure 1

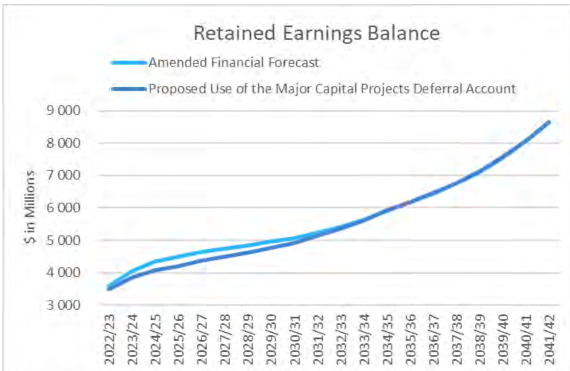


Figure 2

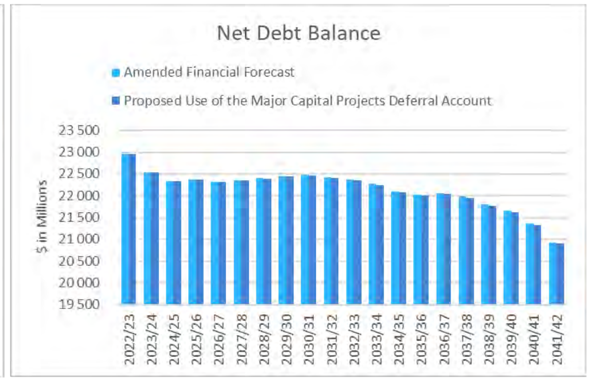


Figure 3 and Figure 4 below compare the impacts of the proposed use of the major capital projects on the debt ratio and the cash surplus/deficit with that assumed in the Amended Financial Forecast Scenario. Both figures demonstrate that the proposal has virtually no impact on the debt ratio or the cash flow surplus/deficit over the planning horizon.

Figure 3

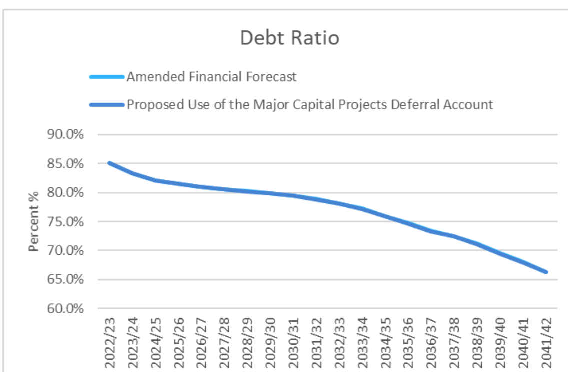


Figure 4

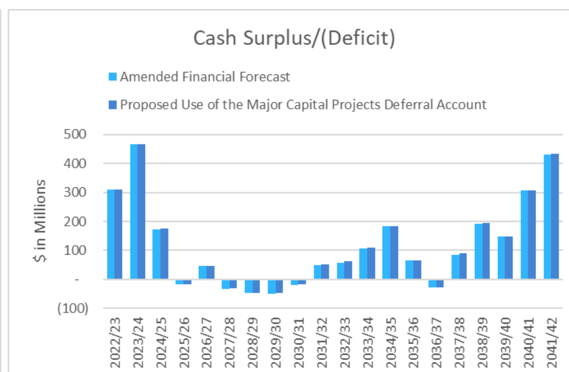


Table 2 below provides a revised version of Figure 16 from Appendix 4.3 which reflects this scenario.

Table 2

Impact to Net Income **Amortization of Major Capital Deferral Account** *(in Millions)*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Net Income before additionals & amortization of Major capital deferral	$ 751	$ 470	$ 296	$ 102	$ 118	$ 98	$ 93	$ 112	$ 106	$ 172	$ 192	$ 220	$ 277
Additions to Major capital deferral	$ (92)	$ (90)	$ (89)										
Amortization of Major capital deferral				37	37	37	37	37	37	37	37	37	37
Net Income including amortization of Major capital deferral	**$ 659**	**$ 380**	**$ 207**	**$ 139**	**$ 155**	**$ 135**	**$ 130**	**$ 149**	**$ 143**	**$ 209**	**$ 229**	**$ 257**	**$ 314**

REFERENCE:

Appendix 4.3, page 14/15

PREAMBLE TO IR (IF ANY):

The last paragraph on page 14 discusses phasing in the change to IFRS ELG and the associated creation of a new deferral account.

QUESTION:

With respect to this phasing in proposal:

a) Please quantify and explain the impact of implementing this change for regulatory rate setting effective September 1, 2023.
b) Please confirm the value that will be in the proposed account at the end of the 15 year phase-in period.
c) Does Manitoba Hydro propose to include interest to this account?
d) Please discuss the plans for disposition of this account after the 15 year period?
e) Please reconcile the proposal for the new deferral account with the statement on page 15 that "Continuing to defer these costs without a recovery mechanism would push costs to future customers that have not received the full benefit and compromises the principle of intergenerational equity".

RESPONSE:

a) As discussed in Appendix 4.3 section 1.4.13, Manitoba Hydro is requesting the following related to depreciation methodology for rate setting purposes:

- Approval of IFRS for determining depreciation for rate setting purposes.
- Approval of ELG as the method for determining depreciation.
- Approvals of a new regulatory deferral account (IFRS depreciation phase-in) and amortization period to smooth the transition of depreciation expense and recognition of gains and losses on disposition of assets from CGAAP to IFRS.

- Approval of the cessation of additions to the Change in depreciation method deferral, approvals of an amortization period for this account and to begin amortizing the balance into income on a straight-line basis.
- Approval of the cessation of additions to the Loss on retirement or disposal of assets deferral, approval of an amortization period for this account and to begin amortizing the balance into income on a straight-line basis.

Figure 1 below summarizes the impact of these recommendations on forecasted net income. Please refer to the response to COALITION/MH I-41 f) for an operating statement reflecting the acceptance of the approvals requested by Manitoba Hydro and outlined above.

Figure 1 Impact to Net Income of Accepting Change to IFRS ELG and Proposed Phase-In

Impact to Net Income **Accept IFRS** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income without Accept IFRS deferrals	$ 693	$ 413	$ 247	$ 109	$ 132	$ 70	$ 72	$ 97	$ 97	$ 168
Additions to IFRS depreciation phase-in deferral	-	41	65	60	55	50	45	40	35	30
Additions to Change in depreciation method deferral	55	23	-	-	-	-	-	-	-	-
Additions to Loss on retirement or disposal of assets deferral	3	1	-	-	-	-	-	-	-	-
Additions - Accept IFRS	58	65	65	60	55	50	45	40	35	30
Amortization of IFRS depreciation phase-in deferral	-	-	(2)	(5)	(6)	(8)	(10)	(11)	(12)	(14)
Amortization of Change in depreciation method deferral	-	(7)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Amortization of Loss on retirement or disposal of assets deferral	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Amortization - Accept IFRS	-	(9)	(17)	(20)	(21)	(23)	(25)	(26)	(27)	(29)
Net Income - Accept IFRS	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**

	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Net Income without Accept IFRS deferrals	$ 194	$ 229	$ 293	$ 271	$ 308	$ 341	$ 390	$ 471	$ 539	$ 601
Additions to IFRS depreciation phase-in deferral	25	20	15	10	5	-	-	-	-	-
Additions to Change in depreciation method deferral	-	-	-	-	-	-	-	-	-	-
Additions to Loss on retirement or disposal of assets deferral	-	-	-	-	-	-	-	-	-	-
Additions - Accept IFRS	25	20	15	10	5	-	-	-	-	-
Amortization of IFRS depreciation phase-in deferral	(14)	(15)	(16)	(16)	(16)	(17)	(17)	(17)	(17)	(17)
Amortization of Change in depreciation method deferral	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Amortization of Loss on retirement or disposal of assets deferral	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Amortization - Accept IFRS	(29)	(30)	(31)	(31)	(31)	(32)	(32)	(32)	(32)	(32)
Net Income - Accept IFRS	**$ 190**	**$ 219**	**$ 277**	**$ 250**	**$ 282**	**$ 309**	**$ 358**	**$ 439**	**$ 507**	**$ 569**

b) At the end of the 15-year phase in period there will be a balance of $332 million in the proposed IFRS depreciation phase-in deferral account. Please refer to the response to PUB/MH I-131 d) for a continuity of regulatory deferral accounts reflecting the acceptance of the approvals requested by Manitoba Hydro and outlined above.

c) Manitoba Hydro does not propose to include interest in this account.

d) As discussed in Appendix 4.3 Section 1.4.16, Manitoba Hydro has proposed an amortization period of 30 years which will fully amortize the balance in the account by 2065/66.

e) When making recommendations for regulatory deferral accounts Manitoba Hydro aims to strike a balance between customer and utility priorities, considering both intergenerational equity and the need for stable and predictable rates.

As discussed in Appendix 4.3 Section 1.4.11, Manitoba Hydro recognizes that its recommendation to adopt ELG for rate setting purposes will result in a significant increase in total depreciation expense (including gains and losses) with a corresponding increase to revenue requirement. As a means to mitigate these impacts, Manitoba Hydro has proposed to phase-in the change to IFRS depreciation for rate setting purposes to smooth the rate impact to customers.

Figure 1 above demonstrates that amortizing this regulatory deferral over the expected remaining service life of the accounts contributing to the balance would have a minimal annual impact.

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REFERENCE:

Reference: Tab 4, Appendix 4.3 page 10 Regulatory Deferrals

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please discuss the merits of writing off the Keeyask in-service deferral account in 2022/23 rather than the proposed time frame requested for recognition over 106 years.

b) Please discuss the merits of writing off the Conawapa deferral account in 2022/23 and provide the impact that change would have on the financial forecast.

RESPONSE:

a) Manitoba Hydro is proposing to amortize the Keeyask in-service deferral account over 106 years beginning in September 2023. In order to write off a deferral account balance, Manitoba Hydro would require direction to do so from the PUB, and for the write off to take place in 2022/23, an Order would need to be received prior to the finalization of Manitoba Hydro's audited financial statements for 2022/23.

   As shown in Appendix 4.3 Figure 2, writing off the Keeyask in-service deferral would result in a reduction to net income of $104 million in the year of write off and a small increase to net income of $1 million in future years, if Manitoba Hydro is directed by the PUB to write off this deferral in 2022/23.

   Manitoba Hydro used PUB/MH I-111 c) ii as a proxy for analyzing the write-off of the Keeyask in-service deferral and applied a proration to estimate the impacts to the debt ratio. Compared to the Amended Financial Forecast Scenario, the debt ratio in 2023/24 would be impacted by approximately 0.5% as a result of the $104 million write off to net income. The immediate write-off is not projected to improve or change the achievement of the debt ratio target dates set out in the new legislative framework coming into effect under *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act ("the Act")*.

b) Manitoba Hydro is currently amortizing the Conawapa deferral account over 30 years. In order to write off a deferral account balance, Manitoba Hydro would require direction to do so from the PUB, and for the write off to take place in 2022/23, an Order would need to be received prior to the finalization of Manitoba Hydro's audited financial statements for 2022/23.

As shown in Figure 1 below, writing off the Conawapa deferral would result in a reduction to net income of $316 million in the year of write off and an increase to net income of $13 million in future years, if Manitoba Hydro is directed by the PUB to write off this deferral in 2022/23.

Manitoba Hydro used PUB/MH I-111 c) i as a proxy for analyzing the write-off of the Conawapa deferral and applied a proration to estimate the impacts to the debt ratio. Compared to the Amended financial forecast, the debt ratio in 2023/24 would be impacted by approximately 1.0% as a result of the $316 million write off to net income. The immediate write-off is not projected to improve or change the achievement of the debt ratio target dates set out in the new legislative framework coming into effect under the Act.

Figure 1 Impact to Net Income – Write off Conawapa Deferral

Impact to Net Income **Write-Off of Conawapa Deferral** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income before write-off of Conawapa deferral	$ 751	$ 469	$ 295	$ 149	$ 166	$ 97	$ 92	$ 111	$ 105	$ 169
Write-off Conwapa deferral	$ (316)									
Remove amortization of Conwapa deferral		13	13	13	13	13	13	13	13	13
Net Income if Conawapa deferral is written off	**$ 434**	**$ 482**	**$ 307**	**$ 162**	**$ 178**	**$ 109**	**$ 105**	**$ 123**	**$ 117**	**$ 182**
	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Net Income before write-off of Conawapa deferral	$ 190	$ 219	$ 277	$ 250	$ 282	$ 309	$ 358	$ 439	$ 507	$ 569
Write-off Conwapa deferral										
Remove amortization of Conwapa deferral	13	13	13	13	13	13	13	13	13	13
Net Income if Conawapa deferral is written off	**$ 202**	**$ 231**	**$ 289**	**$ 262**	**$ 295**	**$ 322**	**$ 371**	**$ 452**	**$ 520**	**$ 582**

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April 21, 2023

By E-mail and Regular Mail
publicutilities@gov.mb.ca

Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba R3C 0C4

Attention: Rachel McMillin, Associate Secretary

Dear Sirs/Mesdames:

Re: Manitoba Hydro 2023/24
and 2024/25 General Rate Application
Our Matter No. 0194440 AFH

MIPUG submission in respect of Bowman Recommendation #4

In Order 42/23, the Public Utilities Board ("PUB") indicated it will consider Recommendation #4 from the evidence of Mr. Bowman (April 3, 2023) by way of written submissions. The Board requested parties address the following questions:

- Is it appropriate to write off Board-approved regulatory deferral accounts against 2022/23 net income?
- Are there adverse consequences (e.g., a perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?
- Should any other deferral accounts be written off completely or partially against 2022/23 net income?

The specific recommendation from Mr. Bowman is as follows:

> Balances in the Conawapa deferral account, the Loss on Disposal account related to discontinued operations, and the Asset Removal cost deferral account, totalling approximately $382 million, should be written-off to income in

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2022/23. The Board should ensure the necessary Orders are provided in time for this transaction to be recorded in the 2022/23 fiscal year.

The recommendation cites evidence of Hydro in PUB information requests (PUB/MH-I-33b) which give the basic requirements and impacts of considering such transactions.

Is it appropriate to write-off Board approved regulatory deferral accounts?

Yes, it is appropriate for the PUB to reduce the amortization period to one year so the transactions are recorded in the 2022/23 fiscal year. Doing so would be consistent with what was envisioned in NFAT and would be an appropriate use of unexpected additional revenue. Doing so would be consistent with the continued expectation that Conawapa is not the next required resource. There is no reason to continue to put the burden of the sunk costs of Conawapa or of Selkirk GS on future ratepayers. Those costs are not used and useful on a go forward basis.

The $380 million in sunk costs for Conawapa was categorized by Hydro as costs required to protect in-service dates. While that may have been a valid objective by Manitoba Hydro prior to NFAT, the NFAT decision and the passing of time have confirmed that this objective should not be pursued. One of the reasons for a 30 year amortization period was that there might still be a justification for including Conawapa in a preferred development plan. As explained in Mr. Bowman's evidence, that fundamental assumption is not supported by the current filing and evidence and it is therefore appropriate, given the other unexpected developments described in this submission, that the balance of the accounts be amortized as of 2022/23.

To the extent that the PUB was or continues to be concerned about rate shock caused by accelerated amortization, the unexpected announcement of retroactive relief by the Government of Manitoba in its charges addresses that concern. In its NFAT report, at p. 191, the PUB had encouraged the Government of Manitoba to provide rate relief and specifically identified the sunk costs of Conawapa as a justification for that rate relief. Implementing Mr. Bowman's recommendation would therefore not undermine any messaging by the PUB on rates and stability as it appears that the PUB recommended that the Government of Manitoba reduce the provincial charges to address, in part, the sunk costs of Conawapa. Now that the Government of Manitoba has finally implemented the spirit of the PUB's recommendation, it is appropriate to implement Mr. Bowman's recommendation which includes immediately addressing the balance of Conawapa sunk costs. Doing so would be consistent with the NFAT decision. One of the benefits of the retroactive adjustments announced on November 23, 2022, is that they allow the PUB to address the sunk costs in Conawapa immediately as was the PUB's hope expressed as follows at p. 191 of its NFAT decision:

> **It would be reasonable for the Government of Manitoba to give serious consideration to a reduction of increment provincial benefits from the Keeyask Project. This should**

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> **involve the Government directing a portion of its incremental capital taxes and water rental fees** to be used to mitigate the impact of rate increases on lower-income customers, as well as northern and aboriginal communities.
>
> Manitoba Hydro can contribute to the impact of rate increases in two ways. It can relax is 75/25 debt-to-equity ratio policy to moderate its proposed electricity rate increases. Manitoba Hydro should also mitigate rate increases by seeking to reduce its own expenditures through operational savings.
>
> The development of the Conawapa Project would result in even higher ratepayer commitments to 50 years, after which the rate increases are not as great as other options. Based on current circumstances, the risks related to Conawapa's development far exceed any rewards to ratepayers over the next 50 years. It would not be prudent to continue spending money on **Conawapa. The Panel also notes the importance of sunk costs and their impact on rates, particularly when those costs have to be written off**. (emphasis added)

Appropriate amortization period

As a preliminary comment, it should be noted that although the colloquial term "write-off" is used throughout the PUB information requests, Mr. Bowman's evidence, and the PUB Order 42/23, a more accurate description of the transaction proposed would be to adjust the amortization period in rates for the following three accounts to be one-year, as of 2022/23:

- **Conawapa planning costs**: from an amortization period of 30 years to an amortization period of one-year as of 2022/23.
- **Selkirk GS Loss on Retirement:** from a deferral account treatment with no defined amortization period at this time, to a period of one-year as of 2022/23.
- **Removal costs for electric assets that were not replaced:** from a deferral account treatment with no defined amortization period at this time, to a period of one-year as of 2022/23.

The distinction is important as the transaction is a regulatory approval tied to a fiscal year for which rates remain interim. The premise is not linked to Hydro's shareholder bearing the costs (as may be understood by a more technical understanding of the term "write-off") but instead Hydro's ratepayers bearing the cost by way of rates paid in 2022/23, which contributed to revenue being well above costs for that year.

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The reason revenues are well above costs for 2022/23 is set out in Mr. Bowman's testimony, generally as follows:

1) **Interim Rate Increase:** Interim rates were set for 2022/23 in Board Order 137/21. The Board noted: "One of the most significant reasons for Manitoba Hydro bringing its Interim Application to the Board was the drought experienced in 2021/22."[1] Further, the Board took note that: "Looking forward, and given the 2021 drought conditions, Manitoba Hydro indicates there is an elevated likelihood of below average inflows occurring in 2022/23."[2]

   Instead, Manitoba Hydro experienced a year of "well above average water supply conditions"[3] For this reason, the interim rates for 2022/23 no longer are linked to the underlying premise on which they were set. This is a positive unexpected event.

2) **Export Market Prices:** Tied to the above issue, at a time of drought, high export market prices are a compounding factor. During the review of the interim rate increase still in place, MISO prices were relatively higher than had been the case in the previous few years[4]. Instead, with the turn to high water, higher export prices become a factor in support of higher net income and lower rate requirements. The GRA filing notes that the export markets have increased substantially: "the average monthly on-peak and off-peak export prices in the current 2022/23 Forecast are roughly 65% higher than those assumed in the 2022/23 Budget."[5] This is also a positive unexpected event.

3) **Government Charges:** The adjustment to water rentals and debt guarantee fees were announced November 23, 2022, retroactive to April 1, 2022. This information was not part of the input to establishing interim rates for 2022/23. This is a significant positive unexpected event which benefits the whole 2022/23 financial year.

At the same time as the above factors were developing, the 2022/23 year regulatory balances included three items which had no enduring benefit to customers, and which are proposed to be either amortized over very long periods into the future (Conawapa) or have no amortization period at all as yet established (Selkirk GS Loss on Retirement, and Removal Costs for Electric Assets that were not replaced).

[1] Order 9-22, page 14.
[2] Order 9-22, page 17.
[3] Application, Tab 4 (Amended), page 8.
[4] Order 9-22, page 20.
[5] Application, Tab 4 (Amended), page 9.

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Under normal circumstances, reflecting a year with final rates, no adjustments to Board-approved regulatory deferral accounts should be expected. This is true whether the year in question had high or low net income. However, the unexpected events outlined above justify an exception.

In short, it is appropriate and justified to direct a one-year amortization of the noted balances in 2022/23.

Are there adverse consequences (e.g., a perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?

The obvious potential concern of a PUB decision electing to revise the amortization period during the interim rate year of 2022/23 is a perception of loss of certainty regarding regulatory deferral accounts.

However, as explained in the previous section, we submit there are no adverse consequences such as perceived lack of regulatory certainty. The Board recommended relief from Government charges in NFAT to address rate pressure issues including rate pressures caused by writing off Conawapa sunk costs. The Government granted retroactive relief in its charges, and therefore regulatory certainty is enhanced by the Board addressing, in the same year as the Government announcement, the full amortization of the regulatory accounts, the largest of which is the Conawapa deferral account.

The impact of doing so should be seen as positive. The reduction of Government charges is used in a way which is consistent with the NFAT decision. The acceleration of amortization reduces the revenue requirements as of 2023/24.

Another unique factor for 2022/23 is the confluence of (a) interim rates, which were (b) predicated on a set of facts that no longer exist, and (c) the revised facts led to higher net income and lower net revenue requirement than was forecast when the interim rates were set.

Absent the 2022/23 year-end requiring finalization, the above set of facts would readily support a revision to the amortization period for the regulatory accounts in question as part of the upcoming 2023/24 test year review. However, in this case Hydro has indicated that in order to match the revised amortization periods to the fiscal year in which interim rates apply, these Orders from the Board are needed before the final Orders from the upcoming hearing.

It would be MIPUG's submission that the Board should adjust the regulatory account deferral periods as proposed, with explicit acknowledgement that this is (a) part of the rate setting process, (b) the amounts are funded by rates (including the 3.6% interim rate increase) not by Hydro's shareholder's retained earnings, and (c) that absent adjustments as part of

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implementing interim rates or an unexpected event such as the Government announcement of a retroactive reduction in its charges, such revisions should not be expected in the future.

Should any other deferral accounts be written off completely or partially against 2022/23 net income?

MIPUG is of the view that regulatory deferrals are appropriate mechanisms to use where they improve the matching of costs and benefits. For example, this would include deferring the costs of DSM to match their long-term benefit to the system, or the costs of overheads that are linked to capital asset acquisition.

MIPUG generally cautions against establishing regulatory deferrals that solely serve to rate smooth, or to defer costs and revenues from the year in which they would otherwise be recorded solely for the purpose of managing rate impacts. It appears that managing rate impacts was one of the drivers for the general rationale for the Conawapa deferral, and may be the basis for the Selkirk disposal deferrals. In the case of Selkirk, there is no ongoing benefit of the plant now that it is not available for generating power. The noted costs have been incurred. Absent a regulatory deferral there would be no basis to amortize the costs in any future year.

At this time, MIPUG is not aware of any other regulatory deferrals that match the characteristics of those noted in the Bowman evidence – that is, accounts which lack enduring benefits or relevance to future periods.

Yours truly,

THOMPSON DORFMAN SWEATMAN LLP

Per:

Antoine F. Hacault

Antoine F. Hacault*

AFH/av
cc: Board Counsel (all via e-mail)
Manitoba Hydro, and Intervenors
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April 21, 2023

THE PUBLIC UTILTIES BOARD OF MANITOBA
400-330 Portage Avenue
Winnipeg, Manitoba, R3C 0C4

ATTENTION: Dr. D. Christle, Board Secretary and Executive Director

Dear Dr. Christle:

RE: Manitoba Hydro's 2023/24 &2024/25 General Rate Application and MIPUG Recommendation 4 of Expert Witness Patrick Bowman

In the report of expert witness Patrick Bowman, filed on April 3, 2023, as Intervener evidence on behalf of the Manitoba Industrial Power Users Group ("MIPUG"), Mr. Bowman makes the following recommendation:

> *Recommendation 4: Balances in the Conawapa deferral account, the Loss on Disposal account related to discontinued operations, and the Asset Removal cost deferral account, totalling approximately $382 million, should be written-off to income in 2022/23. The Board should ensure the necessary Orders are provided in time for this transaction to be recorded in the 2022/23 fiscal year.*

On April 11, 2023, the Public Utilities Board of Manitoba ("PUB" or "Board") issued Order 42/23 with respect to Manitoba Hydro's 2023/24 & 2024/25 General Rate Application ("GRA" or "Application"), providing the following direction with respect to Recommendation 4 of Mr. Bowman's evidence:

> *The Board is prepared to consider MIPUG's recommendation before the oral hearing and invites each party to provide a written submission on that issue by Friday, April 21, 2023. The submissions should address the following matters:*
>
> - *Is it appropriate to write off Board-approved regulatory deferral accounts against 2022/23 net income?*

- *Are there adverse consequences (e.g., a perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?*
- *Should any other deferral accounts be written off completely or partially against 2022/23 net income?*

For the PUB's review and consideration, Manitoba Hydro's comments on MIPUG Recommendation 4 for the write off of the Conawapa and loss on disposal regulatory account balances against 2022/23 net income are provided below:

1. Summary

- Conawapa deferral account was approved by the PUB in Order 59/18. The balance in the deferral account as at March 31, 2022 was $329 million and is anticipated to have a balance of $316 million as at March 31, 2023.

- The Loss on Disposal regulatory deferral account was established based on Manitoba Hydro's interpretation of clarification received from the PUB via letter on April 4, 2016 in relation to Order 73/15. The balance in this account as at March 31, 2022 was $67 million consisting of both discontinued and continuing operations. $43 million of the balance relates to discontinued operations and $24 million relates to continuing operations, of which $23 million is cost of removal.

- Had these regulatory deferral accounts not been established, the full impact of the losses associated with each account would have been included in the revenue requirement when the losses occurred, rather than being smoothed out over time.

- The primary driver for the recommendation to write-off these balances in 2022/23 appears to be the high forecasted net income in that year. Manitoba Hydro's net income, high or low, should not affect/change the original decision that it is appropriate to collect these costs over time rather than in a single year.

- Since the write-off of the Conawapa deferral account is not anticipated to improve or change the achievement of the debt ratio targets set out in *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act* (the "*Act*"), there is no anticipated clear benefit to customers resulting from a write-off.

- A decision to write-off these accounts would be considered a non-adjusting subsequent event to Manitoba Hydro's fiscal year ended March 31, 2023 based on IAS10. This means the 2022/23 financial statements would not be adjusted to reflect these write-offs and the write-offs would be reflected in the 2023/24 financial statements.

- A decision to write-off the Conawapa and/or Loss on Disposal regulatory deferral accounts could create precedence for the treatment of other deferral accounts and could create uncertainty around the valuation and future recovery of all regulatory deferral accounts. This uncertainty exists in relation to both current accounting standards as well as the new IFRS Exposure Draft (ED) on Regulatory Assets and Liabilities.

- For all of the above noted reasons, Manitoba Hydro recommends that these regulatory deferral accounts be kept in-place and not be written-off against 2022/23 net income.

2. Background on each Regulatory Deferral Account

Manitoba Hydro recorded the full losses associated with each deferral account as an expense in the year the loss occurred for financial reporting purposes, then the deferral accounts were established to smooth the impact to customers of these losses over the amortization period of each deferral.

<u>Conawapa Regulatory Deferral Account</u>

In Order 59/18, the PUB accepted Manitoba Hydro's proposed treatment of the $380 million of past costs incurred with respect to the Conawapa Generating Station. Manitoba Hydro proposed that the costs pertaining to the construction of Conawapa be charged to net income under IFRS, then recorded in a regulatory deferral account effective March 2018, with the amortization of the regulatory deferral on a straight-line basis into revenue requirement over a period of 30 years beginning on April 1, 2018. The PUB ruled that the treatment of Conawapa costs via a regulatory deferral was appropriate because the decision to discontinue Conawapa construction was part of the NFAT review of the Utility's long-term system planning for long-lived assets. Further, the approach smoothed out the impact of this one-time cost on consumers.

<u>Loss on Disposal Regulatory Deferral Account</u>

The Loss on Disposal regulatory deferral account was established based on Manitoba Hydro's interpretation of clarification received from the PUB via letter on April 4, 2016 in relation to Order 73/15. Manitoba Hydro was advised to maintain its existing CGAAP accounting for regulatory purposes and to seek guidance from its financial advisors as to accounting treatment for financial reporting purposes. This issue is related to the decision on Manitoba Hydro's depreciation methodology for rate setting purposes, which is a topic of this proceeding. This interpretation resulting in creation of this regulatory deferral account is described in GSS-GSM/MH I-1 l) pages 4-5 "Gains and Losses on Disposal of Assets" from this proceeding.

3. Analysis Based on Questions Asked by the PUB

Manitoba Hydro submits that there are several aspects that should be considered in relation to the questions that the Board has asked on the potential write-off of these deferral accounts. These aspects are incorporated in Manitoba Hydro's response to the PUB's questions below:

PUB Question: Is it appropriate to write off Board-approved regulatory deferral accounts against 2022/23 net income?

In considering whether it is appropriate to write-off these regulatory deferral accounts against 2022/23 net income the following should be considered:

1) Net Income in a single year should not impact the original intent of the deferrals.

   The regulatory deferral accounts in question were established to provide rate smoothing in relation to the recovery of costs associated with Conawapa and items within the Loss on Disposal account. Had these regulatory deferral accounts not been established, the associated losses would have significantly impacted Manitoba Hydro's revenue requirement in the years the losses occurred and would likely have impacted rates charged to customers in those years to allow Manitoba Hydro to recover its costs. High net income for Manitoba Hydro should not affect/change the original decision that it is appropriate to collect these costs over time rather than in the year where they were incurred (or in a single year).

   In contrast to the current situation, it has not been the practice of the PUB to pause or extend the amortization of deferral accounts when Manitoba Hydro is forecasting a loss, such as when a drought occurs.

2) Benefit to customers

In responding to information requests PUB/MH I-33b and PUB/MH I-111c, Manitoba Hydro demonstrated that a decision to write-off the Conawapa regulatory deferral is not anticipated to improve or change the achievement of the debt ratio targets set out in the *Act*. Since the write-off of the Conawapa deferral account is not anticipated to improve or change the achievement of the debt ratio targets set out in the *Act*, there is no anticipated material benefit to customers resulting from a write-off.

3) Challenges to recording these write-offs in 2022/23

Based on further review of the recommendation and consideration of accounting standards, Manitoba Hydro anticipates that there will be challenges to recording a write-off of these deferral accounts against 2022/23 net income even if the PUB were to reach such a decision.

Such a decision would be considered a subsequent event to Manitoba Hydro's fiscal year ended March 31, 2023. Subsequent events are classified as either an adjusting or non-adjusting event. IAS 10 covers the accounting treatment for subsequent events and provides guidance on whether such an event would be "adjusting" or "non-adjusting" in nature. The differentiating factor between an adjusting and non-adjusting subsequent event is whether the information received is regarding conditions that existed at or before the year-end date (March 31, 2023). If the conditions existed at or before the year-end date, then the event would be classified as an adjusting subsequent event and the financial statements would need to be adjusted to incorporate the event. Alternatively, if the information is indicative of conditions that arose subsequent to the year-end date, then the event would be classified as a non-adjusting event and it would only be disclosed (if material).

To be considered as an adjusting subsequent event, which would result in the write-offs being incorporated into the 2022/23 financial statements, an argument would need to be advanced that the conditions triggering the write-off arose either on or before March 31, 2023. Recognizing that a new directive or order from the PUB to write-off the deferral accounts (i.e. treat them differently than outlined in earlier orders) would be issued after the year end date, Manitoba Hydro believes it's more likely than not that this event would be considered a non-adjusting subsequent event and would not result in the write-off being incorporated in the 2022/23 financial statements.

PUB Question: Are there adverse consequences (e.g., a perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?

A decision to write-off the Conawapa regulatory deferral account and the discontinued operations and cost of removal portions of the Loss on Disposal regulatory deferral account has the potential to create adverse consequences by:

1) Creating uncertainty around the valuation and recovery of all regulatory deferral accounts in relation to both current accounting standards as well as the new IFRS Exposure Draft (ED) on Regulatory Assets and Liabilities.

   A decision to write-off these deferral accounts without recovery of their remaining balances is likely to create uncertainty associated with the recovery of other regulatory deferral balances. A key consideration for regulatory deferral accounts under current accounting standards (IFRS 14 and the U.S. GAAP regulatory standard) is the likelihood of future recovery of the relevant costs through future rates. A decision to write-off these deferral accounts due to high net income in 2022/23 could set a precedent whereby other regulatory deferral balances are questioned in future years where net income is favourable.

   Under the new IFRS Exposure Draft (ED) on Regulatory Assets and Liabilities, the measurement (or valuation) of a regulatory deferral account would involve an assessment of the "risks and uncertainties" associated with their future cash flows. The assessment of risk would factor into the establishment of book value, planned amortization period, and the discounting process when determining the amount to record on the financial statements for the deferral accounts and any future revaluation. A decision to write-off the Conawapa and Loss on Disposal regulatory deferral balances against 2022/23 net income would likely introduce significant estimation uncertainty in evaluating when and how to recognize and measure regulatory deferrals going forward under the new IFRS Exposure Draft (ED) on Regulatory Assets and Liabilities.

2) In relation to the Loss on Disposal account, creating a precedence that could impact the treatment of other existing deferral accounts including those for Manitoba Hydro's gas segment.

   The Loss on Disposal regulatory deferral account includes losses related to discontinued operations, the cost of removal related to both continuing and discontinued operations and gains/losses on continued operations. A decision to write-off the amounts in this account related to discontinued operations and all costs of removal could imply or create a precedent that there should be no future deferrals in the event of a large loss associated with discontinued operations. Similarly, the write-off of the cost of removal portion included in the Loss on Disposal account would suggest future such costs should not be deferred. In such a case, costs to decommission an asset like Selkirk GS would be expensed as incurred.

   A further complication on this issue relates to Centra Gas Manitoba Inc. ("Centra"), as subsidiaries normally follow accounting practices of the parent entity, and regulatory principles should be applied consistently to both entities. Centra also has a Loss on Disposal account and the amounts in that account are nearly all related to service line abandonments, which total approximately $2 million per year and pertain to interim retirements for an on-going account. A write-off of this account and requirement to expense service line abandonments as incurred would have a very material impact to Centra's financial statements.

   At minimum, there is likely a need to treat the cost of removal related to interim retirements for on-going accounts (e.g. Centra service line abandonments) differently than the cost of removal for discontinued operations (e.g. Selkirk GS). However, the continued deferral of costs related to discontinued operations likely still has merit from a rate smoothing perspective.

For all of the above noted reasons, Manitoba Hydro submits that these regulatory deferral accounts should remain in-place and not be written-off against 2022/23 net income as recommended by Mr. Bowman.

Should you have any questions with respect to the aforementioned, please do not hesitate to contact the writer at 204-360-3257.

Yours truly,

MANITOBA HYDRO LEGAL SERVICES

Per:

Brent Czarnecki

Senior Counsel

PUBLIC INTEREST LAW CENTRE | CENTRE JURIDIQUE D'INTÉRÊT PUBLIC

April 21, 2023

Writer's email: chkla@legalaid.mb.ca

The Public Utilities Board of Manitoba
400 – 330 Portage Avenue
Winnipeg, MB R3C 0C4

Attention: Dr. Darren Christle, Executive Director and Board Secretary

Dear Dr. Christle:

Re: Consumers Coalition Comments – Offsetting 2022/23 Net Income Against RDA Balances

In response to the Public Utilities Board's ("PUB") invitation in Order 42/23, the below comments regarding Recommendation No. 4 from the Pre-Filed Testimony of Mr. Patrick Bowman are provided on behalf of the Consumers Coalition.

The Consumers Coalition finds that it is not appropriate to write off Board-approved regulatory deferral accounts (RDAs) against 2022/23 net income. The Coalition recommends that Recommendation #4 in the evidence of Mr. Bowman filed on behalf of MIPUG not be adopted by the Board.

First, the proposal requires a departure from the principled use of RDAs consistently applied by the Board in past practice. Second, due to this proposal having arisen through intervener evidence, there is insufficient information on the record about its potential impacts on residential ratepayers to adequately inform evidence-based decision-making. Finally, despite the lack of opportunity to canvass the impacts through information requests asked of Manitoba Hydro, the Coalition identifies a reasonable likelihood of direct and detrimental impacts on the residential customer class through future differentiated rates. Each of these matters will be discussed below in turn.

Bowman Recommendation #4

As explained in section 3.2 of Mr. Bowman's evidence, the proposal under consideration is to write off to income in 2022/23 approximately $382 million in costs associated with the planning of the Conawapa Generating Station, losses on the retirement of generating station assets including the Selkirk Generating Station, and asset removal costs associated with the corporation's transition to IFRS.

These costs are presently subjected to regulatory deferral, with the substantial majority (approximately $316 million in Conawapa planning costs) having approximately 25 years of amortization remaining.

Mr. Bowman views Manitoba Hydro's unprecedented net income in 2022/23 as presenting a unique opportunity to dispose of these costs. He explains that taking advantage of this opportunity is prudent because these costs "do not represent any enduring value to ratepayers."[1]

If endorsed by the Board, an Order respecting the treatment of these RDAs would need to be issued by the Board before June 7, 2023.[2] It is also the Coalition's understanding that writing these costs off to income in 2022/23 would not lead to a reduction in Manitoba Hydro's revenue requirement or overall rate request in the present application and would have negligible effects on Manitoba Hydro's proposed future rate path.[3]

Regulatory Principles Justifying Deferral Continue to Apply

The deferral of costs is an integral element of setting just and reasonable rates. It is a direct product of the regulatory principles of intergenerational equity and matching as applied by the PUB,[4] and as noted by Manitoba Hydro, is also relevant to rate smoothing.[5] These principles were applied in the creation of Board-approved RDAs and call for the continued deferral and

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[1] Pre-Filed Testimony of Patrick Bowman (April, 3 2023) at page 22.
[2] PUB Order 42/23 at page 7.
[3] PUB/MH I-33(b).
[4] Manitoba Public Utilities Board, "Regulatory Principles" (undated), online: http://www.pubmanitoba.ca/v1/about-pub/regulatoryprinciples.html.
[5] Manitoba Hydro 2023/24 & 2024/25 General Rate Application, Appendix 4.3 at page 7.

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amortization of the costs in question here. Further, departing from these principles creates risk of uncertainty and inconsistency in Manitoba Hydro's treatment of costs, which will be of concern to present and future regulatory processes.

Using the Conawapa planning costs as an illustrative example, the Board found in Order 59/18 that the deferral of Conawapa planning costs and the amortization of these costs for ratesetting purposes was consistent with its regulatory principles and contributed to rate smoothing. The Board noted that this treatment of these costs was "appropriate because the decision to discontinue Conawapa construction was part of the NFAT review of the Utility's long-term system planning for long-lived assets."[6]

For this reason, the Consumers Coalition strongly disagrees with Mr. Bowman's assertion that these costs represent no "enduring value" for ratepayers. The decisions flowing from the NFAT review process were made with a view to achieving "the best long-term interest[s] of the Province of Manitoba",[7] and this included decisions both to pursue and not pursue certain projects.

The proposed Conawapa Generating Station was not considered in isolation from other proposed developments, and the decision to halt the project continues to affect ratepayers in the same manner as the accompanying decision that allowed Keeyask to proceed. Just as future ratepayers would have shared in the costs and benefits of Conawapa had it been built, the Board elected in Order 59/18 to ensure that they would also share in the risk undertaken by the corporation by investing in the project's planning phase.

The regulatory principles cited above called for the deferral of these costs for ratesetting purposes to align the time period of expenditures with the ratepayers who should equitably be responsible to pay for them. Ratepayers and regulated entities require certainty which can only be provided through consistent actions by regulators. Manitoba Hydro's anomalous 2022/23 net income is no justification for abandonment of these principles and does not support the writing off of these costs to income.

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[6] PUB Order 59/18 at page 149.

[7] Public Utilities Board, "Report on the Needs For and Alternatives To Review of Manitoba Hydro's Preferred Development Plan" (June 2014) at 18.

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Insufficient Information to Assess Impacts

Due to this recommendation having formally arisen through intervener evidence, neither the PUB nor Interveners have had an opportunity to canvass its potential effects through information requests asked of Manitoba Hydro. Due to the time-sensitive nature of the proposal, parties will also not have an opportunity to obtain necessary certainty through cross-examination during the hearing.[8]

The Consumers Coalition cannot endorse this proposal without this necessary clarity, particularly regarding its potential effect on differentiated rates as described in greater detail below.

Risks for Residential Ratepayers through Differentiated Rates

While the effects of the proposal in question are not certain and cannot be clarified through information requests to Manitoba Hydro, the Consumers Coalition identifies a reasonable likelihood that writing off these deferred costs to income will have a detrimental effect on residential ratepayers through rates.

The Consumers Coalition assumes that the costs associated with Conawapa and the retirement of Selkirk and other Generating Station assets have to date been treated as Generation costs for the purpose of Manitoba Hydro's cost of service study. The Coalition also understands Generation costs to be weighted more heavily (i.e. forms a greater portion of allocated costs) to the General Service Large customer classes than to residential ratepayers. Conversely, net income is a cost allocated on Manitoba Hydro's total rate base, including distribution investment, the costs of which impact the Residential class more heavily (compared to GSL classes).

Writing off deferred Generation expenses to net income will serve, in each of the years remaining in the current amortization periods, to reduce costs associated with Generation and create an equivalent implicit increase in net income, all else equal.[9]

The Consumers Coalition expects that for the purpose of future differentiated rate proposals, the end result of Mr. Bowman's Recommendation #4 will reduce costs that are weighted more

[8] The Consumers Coalition notes that cross-examination alone is unlikely to yield the information required, which would include modeling of the impacts on rate differentiation throughout the Conawapa amortization period.
[9] PUB/MH I-33(b).

heavily to the General Service Large classes. The increase in net income will then be shared among customer classes but will impact the Residential class most significantly, resulting in a net benefit to General Service Large and a detriment to residential ratepayers in every year that remains in the currently-approved amortization period.

While these effects cannot presently be quantified, the Consumers Coalition finds them reasonably likely to occur based on the assumptions stated above. Due to the risks posed specifically for residential ratepayers, the Consumers Coalition cannot endorse the proposal under consideration.

Conclusion

In deferring costs for ratesetting purposes, the PUB has previously applied the regulatory principles underlying just and reasonable rates to ensure certainty, fairness and equity for regulated entities and their customers.

While Manitoba Hydro and the PUB are presented with a unique opportunity to respond to the corporation's unprecedented net income, departing from the tested principles underlying regulatory deferral cannot be justified by anomalous financial circumstances.

Regulatory principles call for the continued deferral of the costs in question, and consistent application of these principles is in the best interests of all stakeholders. Further, neither the PUB nor interveners have sufficient information to confidently make an evidence-based decision to depart from past practice. However, despite uncertainty, there is reasonable risk of long-lasting negative impacts on residential ratepayers, Manitoba Hydro's largest customer class.

The RDAs associated with Conawapa planning costs, the retirement of Selkirk and other Generation assets, and asset removal following the transition to IFRS should not be written off to income in 2022/23, nor should the contents of other Board-approved RDAs.

The Consumers Coalition thanks the Board for its consideration of these comments.

Chris Klassen
Attorney*

*Chris is an independent lawyer retained by the Public Interest Law Centre in this matter.

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April 21, 2023

VIA EMAIL

Public Utilities Board
400-330 Portage Ave,
Winnipeg, MB R3C 0C4

Attention: Dr. Darren Christle, Executive Director & Board Secretary

Dear Dr. Christle:

Re: Manitoba Hydro 2023/24 and 2024/25 General Rate Application
Submission re Order 42/23
Our File No. 18442 TKR

By way of Order 42/23, the Board sought written submissions from the parties in the above-captioned matter relating to Mr. Bowman's recommendation (as adopted by MIPUG) that:

> Recommendation 4: Balances in the Conawapa deferral account, the Loss on Disposal account related to discontinued operations, and the Asset Removal cost deferral account, totalling approximately $382 million, should be written-off to income in 2022/23. The Board should ensure the necessary Orders are provided in time for this transaction to be recorded in the 2022/23 fiscal year.

The representatives of the GSS/GSM customer classes ("GSS/GSM"), by way of this letter, advise the Board that GSS/GSM supports Mr. Bowman's recommendation.

Following consultation with Mr. Madsen, GSS/GSM provides the following responses to the Board's three questions as set out in Order 42/23:

Question 1: Is it appropriate to write off Board-approved regulatory deferral accounts against 2022/23 net income?

Response: The recovery of deferral account balances, including the timing and quantum of recovery, is at the Board's discretion. GSS/GSM is aware of no regulatory, legal or practical reason that prohibits the Board's discretion to approve the recommendation.

Question 2: Are there adverse consequences (e.g., a perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?

Response: Yes, there are consequences of writing off the regulatory balances, but the consequences do not appear to be material relative to the benefits. At page 21 (PDF page 24) of Mr. Bowman's evidence prepared for MIPUG, Mr. Bowman discusses the implications of writing of the regulatory balance and cites evidence from Manitoba Hydro which states that the write off "would have no effect on cash" and "would have minimal effect on achievement of the legislated debt:equity targets." GSS/GSM accepts this evidence, and agrees based on the evidence that the impacts appear to have minimal impact on the debt-equity ratios and should improve net income in the future. Further, the write-off of these amounts will not result in further rate increases in the current test period.

Question 3: Should any other deferral accounts be written off completely or partially against 2022/23 net income?

Response: At this time GSS/GSM is not aware of any other deferral account balances that warrant write off for the same reasons identified by Mr. Bowman in his evidence. GSS/GSM is aware of other material deferral balances, such as those related to depreciation matters, but considers those deferral balances to be better addressed through other means as discussed in the evidence of Mr. Bowman and Mr. Madsen respectively.

If you have any questions regarding the above, please do not hesitate to contact us.

Yours truly,

GANGE COLLINS & ASSOCIATES
Per:

THOMAS K. REIMER
TKR/RJW

cc: PUB Counsel
cc: Manitoba Hydro (by email)
cc: Counsel for Approved Interveners
cc: Clients

FOX LLP

April 21, 2023

Public Utilities Board
400-330 Portage Ave,
Winnipeg, MB R3C 0C4

RE: Regulatory Deferral Account Submissions

1. In Board Order 42/23, the Public Utilities Board (the "**Board**") requested written submissions from each party on the potential write-off of certain Board-approved regulatory deferral accounts against Manitoba Hydro's ("**MH**") 2022/23 net income. The largest of the Board-approved deferral accounts is the $316 million in the Conawapa deferral account. The Board has requested submissions from parties on the following issues:
    - Is it appropriate to write off Board-approved regulatory deferral accounts against 2022/23 net income?
    - Are there adverse consequences (e.g. perceived lack of regulatory certainty) to writing off a Board-approved regulatory deferral account? If so, what is the anticipated impact of those consequences?
    - Should any other deferral accounts be written off completely or partially against 2022/23 net income?
2. The Assembly of Manitoba Chiefs ("**AMC**") makes the following written submissions in response to the Board's request.
3. The AMC's primary concern on this issue is the impact a write-off will have on MH's proposed rates charged to its customers who are facing broader economic hardship from inflation and other factors. Any increase in rates, particularly for First Nations residential customers but for all First Nations customers, resulting from the write-off would be strongly opposed by the AMC and its member First Nations. The AMC's comments will focus primarily on the Conawapa deferral account, as it is the largest of the potential accounts being proposed for an immediate write-off.

Is it appropriate to write-off Board approved regulatory deferral accounts against 2022/23 net income?

4. If there is no immediate or long-term rate impact, particularly for First Nations residential customers, resulting from the immediate write-off of the deferral accounts, the AMC does not oppose the proposed write-off of the regulatory deferral accounts against net income. The AMC does, however, submit that any ruling by the Board approving a write-off should include language that does not hold future ratepayers accountable for the financial impact of the write-off in the form of additional rate increases.

5. The AMC is concerned about the lack of evidence regarding what impact, if any, may result from the proposed write-off of deferral accounts on residential ratepayers. If the Board concludes that there may be a future negative impact, particularly for First Nations residential ratepayers, if the deferral accounts are written off then the AMC does not support Mr. Bowman's recommendations. Depending on how rates from the deferral accounts are allocated to different customers classes, it is not immediately clear what the long-term impact of the write-off will be. The AMC recommends that MH provided a long-term and detailed impact analysis on the write-off before a decision is made.

Are there adverse consequences to the proposed write-off?

6. In response to interrogatories regarding the immediate write-off of deferral accounts, MH responded that it would "not improve or change the achievement of the debt ratio target dates" that are included in Bill 36 and are incorporated in its General Rate Application (GRA). The AMC interprets this response as an immediate write-off of the Conawapa deferral account will have no impact on rates being proposed by MH in the General Rate Application (GRA), but will instead reduce its net income in the 2022/23 financial year. MH provided the impact of writing-off the Conawapa deferral account and highlighted what its impact would be on net income, not rates. The AMC is concerned that there is no evidence of the future rate impact, if any, Mr. Bowman's recommendation will have for First Nations ratepayers.

Figure 1 Impact to Net Income – Write off Conawapa Deferral

Impact to Net Income **Write-Off of Conawapa Deferral** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income before write-off of Conawapa deferral	$ 751	$ 469	$ 295	$ 149	$ 166	$ 97	$ 92	$ 111	$ 105	$ 169
Write-off Conwapa deferral	$ (316)									
Remove amortization of Conwapa deferral		13	13	13	13	13	13	13	13	13
Net Income if Conawapa deferral is written off	**$ 434**	**$ 482**	**$ 307**	**$ 162**	**$ 178**	**$ 109**	**$ 105**	**$ 123**	**$ 117**	**$ 182**
	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Net Income before write-off of Conawapa deferral	$ 190	$ 219	$ 277	$ 250	$ 282	$ 309	$ 358	$ 439	$ 507	$ 569
Write-off Conwapa deferral										
Remove amortization of Conwapa deferral	13	13	13	13	13	13	13	13	13	13
Net Income if Conawapa deferral is written off	**$ 202**	**$ 231**	**$ 289**	**$ 262**	**$ 295**	**$ 322**	**$ 371**	**$ 452**	**$ 520**	**$ 582**

7. Net income for 2022/23 is expected to be more than $700 million and is hundreds of millions of dollars greater than MH's previous forecast due to high export prices and other conditions. Net income is expected to decline over the next decade as water levels return to normal levels and current export contracts expire and are replaced with lower value spot market transactions. The higher than forecast net income provides an opportunity to remove costs in deferral accounts that will be paid for by future ratepayers by utilizing this year's high net income amounts.

8. The AMC is concerned that writing off more than $300 million in deferral account balances this year lessens MH's ability to pay down debt by an equivalent amount. While MH has stated that it does "not change the achievement of the debt ratio target dates", it must alter the timeline in how those targets are met. Conceivably, a $300 million reduction in net income this year increases the amount of debt that MH would have on its books in future years when it is likely to incur higher borrowing costs on debt that must be refinanced.

9. Given the uncertainty regarding net income over the next decade (i.e. the potential that net income is lower than currently forecast), if MH requires higher-than forecasted rate increases

to achieve its financial targets, and at least some portions of this rate increase can be tied to the impact of lower debt payments today due to the write-off of regulatory deferral accounts, the AMC submits that these costs should be solely borne by MH without resort to a rate increase. Any ruling by the Board related to the write-off should include language that does not hold future ratepayers accountable for the financial impact of the write-off in the form of additional rate increases.

10. The AMC also recommends that MH provide a detailed accounting of its debt repayment schedule with and without the write-off of the deferral account. If the write-off results in higher total debt amounts in years when net income is lower and borrowing costs are higher, MH should make this clear to the Board and interested parties.

11. One negative regulatory consequence of the write-off is that it could allow for the possibility to arbitrarily push certain costs to future years when net income is below forecast. While the current proposal is utilizing the current higher-than-anticipated net income to write-off deferral accounts, there is no reason to suggest the counter could not occur in years when net income is lower-than-forecast. For example, if net income was well below MH's forecast, MH may request that the clearing of certain deferral accounts be deferred to future years. This, in essence, pushes costs from current to future ratepayers and may not fully hold MH to account for the reasons why net income was below forecasts. If the Board were to pursue a write-off of deferral accounts, it may want to consider language in its decision to ensure that this is asymmetric – i.e. it is an option when net income is significantly higher than forecasted amounts and allows for the clearing of deferral accounts, but cannot be used to defer costs in years when net income is below forecasted amounts.

Sincerely,

FOX LLP

Emily Guglielmin and Carly Fox

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April 26, 2023

By E-mail and Regular Mail
publicutilities@gov.mb.ca

Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba R3C 0C4

Attention: Rachel McMillin, Associate Secretary

Dear Sirs/Mesdames:

Re: Manitoba Hydro 2023/24
and 2024/25 General Rate Application
Our Matter No. 0194440 AFH

Pursuant to email communication from Public Utilities Board ("Board") Counsel on April 11, 2023, this submission provides the reply submission of the Manitoba Industrial Power Users Group ("MIPUG") to the submissions of parties to the Manitoba Hydro ("Hydro") rate application in respect of the Bowman Recommendation #4, received April 21, 2023.

In addition to MIPUG's submission, four submissions were received.

MIPUG has no response to the submission of **GSS/GSM intervenor**.

In respect of the submission of the **Assembly of Manitoba Chiefs ("AMC")**, MIPUG notes that the submission appears to at times conflate issues associated with an accelerated amortization in 2022/23 with cash (and consequently, debt). MIPUG confirms that nothing contained within the MIPUG submission affects cash, and as a result, nor does it affect long-term debt levels. The AMC suggests that the proposed transaction may "lessen MH's ability to pay down debt by an equivalent amount" by more than $300 million (page 2), which is not correct. Debt levels will be unaffected. The only effect of the transaction will be on retained earnings levels in future (less reported retained earnings) and on amortization costs (less amortization expense), both of which are non-cash effects.

The response from **Manitoba Hydro** notes an interpretation that the "primary driver for the recommendation to write-off these balances in 2022/23 appears to be the high forecasted net

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income in that year" (page 2). As noted in MIPUG's submission on April 21, this is not correct. The primary driver is the fact that 2022/23 rates remain interim, and the facts have materially changed since the rates were first set on an interim basis. The use of interim rates may readily lead to adjustments to the level of interim rates charged (e.g., retroactive refunds to customers) or other regulatory conditions affecting the year. Manitoba Hydro, and the readers of Manitoba Hydro's financial statements, are aware (or ought to be aware) that any financial situation reported is subject to revision and adjustment by the Board, as was made clear in Order 137/21, as follows (page 12):

> Any interim rates approved must be the subject of a further public hearing process before the Board to alter or finalize such interim rates. The process to finalize the interim rates approved in this hearing process will follow in a separate proceeding before the Board in 2022.
>
> …
>
> This increase recognizes the financial consequences of the drought and the Board's objective to avoid rate shock by smoothing the rate increases required to address the costs of major capital projects entering service.

Consequently, MIPUG submits that the primary driver of the MIPUG proposal is not simply that Hydro has high net income in 2022/23 – it is that interim rates as enacted are poorly matched to the year in question due to multiple material changes in circumstances from the time the rates were set. MIPUG would not be making the submission absent interim rates for 2022/23. MIPUG would also not be making the recommendation for adjustment at this time, absent Hydro's assertion that approval would need to be received prior to the final Board Decision on the main application in order to recorded in the year in which interim rates applied.

Second, Hydro notes that the adjustment proposed "would be a non-adjusting subsequent event to Manitoba Hydro's fiscal year ended March 31, 2023 based on IAS10" and that therefore the transaction would be recorded in the 2023/24 financial statements. This is contrary to Hydro's evidence in response to PUB/MH-I-33b, which notes:

> In order to write off a deferral account balance, Manitoba Hydro would require direction to do so from the PUB, and for the write off to take place in 2022/23, an Order would need to be received prior to the finalization of Manitoba Hydro's audited financial statements for 2022/23.

Manitoba Hydro now indicates "based on further review" that a decision by the Board to accelerate the amortization of the accounts would be a situation that would be a "subsequent event" to the situation as of March 31, 2023. Subsequent events are either adjusting (can be recorded in 2022/23) or non-adjusting (cannot be recorded in

2022/23), and the distinction relates to whether the event relates to "conditions that existed at or before the year-end date (March 31, 2023)" (Hydro submission, page 5). Hydro indicates that to be an adjusting event "an argument would need to be advanced that the conditions triggering the write-off arose either on or before March 31, 2023".

MIPUG acknowledges that the event (a specific Board Order) would be subsequent to year-end. However, the condition leading to the event were the facts that:

1) Hydro's rates were made interim as of January 1, 2022 (Order 137/21)

2) The conditions underlying the interim order changed materially.

3) One of the changes (a reduction in government charges) was linked to previous Board recommendations to Government about how to deal with Conawapa costs.

4) The other material change (a revision from drought conditions to high water conditions) was integral to the decision to set interim rates at a 3.6% increase.

These are all conditions that existed prior to March 31, 2023. For this reason, Hydro's current view on this aspect may be incomplete.

Finally, Hydro indicates concern (page 6) that the requested decision from the Board may lead to "creating uncertainty around the valuation and recovery of all regulatory deferral accounts in relation to both current accounting standards as well as the new IFRS Exposure Draft (ED) on Regulatory Assets and Liabilities". This is because a "decision to write-off these deferral accounts without recovery of their remaining balances is likely to create an uncertainty associated with the recovery of other regulatory deferral balances" (emphasis added).

This concept is addressed in the original MIPUG submission on April 21, 2023 but is repeated here for reference. In short, the proposal by MIPUG is not for Hydro's shareholder or retained earnings to absorb any losses. The MIPUG proposal is that an adjusted amortization period be included in the costs and revenue requirement for 2022/23, such that Hydro does (did) recover the remaining balances from the rates paid by customers (inclusive of the interim rates paid).

On the matter of Centra, it is MIPUG's submission that the loss on electric discontinued operations relates only to Selkirk Generating Station, which comprises asset accounts 12150.00[1]. There are no other assets in these accounts than Selkirk GS. Selkirk GS is no longer operating, and the account is headed for complete disposition and closure. It

[1] PUB MFR 95, page 42.

would be MIPUG's understanding that in the case of Centra, a given gas service may be abandoned, but the underlying retired assets would be part of an overall gas services account, and that account would be depreciated over a life that reflects the average expected life, inclusive of that fact that some assets will be removed prior to the same life as other assets. However, the overall services asset account would endure, and any individual disposition transaction would not be in a terminal or orphan account that is headed for closure (as is the case with Selkirk GS). As such, concerns over the situation regarding the Selkirk GS would not be a direct precedent to the situation at Centra.

As to rate smoothing, which is cited in regard to Selkirk GS costs, MIPUG notes that the Board should always proceed very carefully when asking future ratepayers to pay for assets that are part of an account that no longer provides any value to customers. Another consideration is that customers ought only be paying for what is used and useful to them. Deferring costs imposes intergenerational inequities. Any opportunity to avoid this outcome should be explored.

On the submission of the **Consumer's Coalition**, there are two aspects provided. With respect to the overall impact on Hydro and precedent, these matters are already addressed above and in our first submission.

However, the Coalition notes it is particularly concerned with the effects on one class of customers – residentials – rather than the overall just and reasonable outcomes in respect of Hydro's revenue requirement. The Coalition appears misguided in their assumption that a reduction in amortization cost (particularly generation-related amortization costs) will not benefit residential customers. All customers pay for Hydro's generation costs. Indeed, even a quick perusal of the Cost-of-Service Study indicates that costs of generation are allocated more to residentials than GS Large[2]. Further, because of the nature of their loads and losses, the Residential rate classes are allocated an average 5.3 cents of generation costs per kW.h of use, and the GS Large >100 kV rate class is allocated 4.0 cents per kW.h[3]. This is why it is entirely misguided for the Coalition to suggest that positive conditions in the area of generation and transmission (whether lower costs, or higher export revenues) are an adverse impact to the Residential rate classes.

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[2] Residential energy allocation is based on 9,170,040 MW.h while industrial is 7,626,255 MW.h (E12, per Appendix 8.2, page 16). Demand is 2,106 MW residential and 977.3 GS Lage (D13, per Appendix 8.2, page 11).

[3] Per Appendix 8.1, page 19 and 20. Residential generation cost is $431.7 million, on a load of 8,097 GW.h, while GSL >100 kV is $128.5 million on a load of 3,249 GW.h.

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The root of the Coalition concern appears to be the assumption that over time, this transaction would occur with "all else being equal". Without prejudging future PUB decisions, the expectation for MIPUG is that not all else will be equal. Without these large, deferred costs in Hydro's regulatory deferral accounts, annual amortization cost in each future year will go down, which may well lead to future benefits for all customers, including residentials.

Yours truly,

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Per:

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