Exhibit 2:

Rate Base



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- 2-B Thunder Bay Hydro Distribution System Plan
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- 2-D Capital Projects Table, Board Appendix 2-AA
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1 **2.1 RATE BASE**

2.1.1 OVERVIEW 2 3 The following Exhibit provides details and analysis of the Rate Base forecast for Thunder Bay Hydro. 4 5 Thunder Bay Hydro has prepared its Rate Base for the purpose of calculating the revenue requirement in 6 this Application following Chapter 2 of the Filing Requirements for Electricity Distribution Rate 7 Applications – 2016 Edition for 2017 Rates Applications issued on July 14, 2016. ("Filing Requirement") 8 In accordance with the Filing Requirements, Thunder Bay Hydro has calculated its Rate Base on the 9 average 2017 Test Year opening and 2017 Test Year closing balances of gross fixed assets and 10 accumulated depreciation, plus a the working capital allowance of 7.5%. 11 12 Net fixed assets include those distribution assets that are associated with activities that enable the 13 conveyance of electricity for distribution purposes. The rate base calculation excludes any non-14 distribution assets. Controllable expenses include operations and maintenance, billing and collecting and 15 administration expenses.

- 16
- 17 Thunder Bay Hydro has provided its rate base continuity schedule for the years 2013 Board Approved,
- 18 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and 2017 Test Year in Table 2-1 below.
- 19

20 TABLE 2-1: RATE BASE CONTINUITY SCHEDULE

Line No.	Description	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Bridge Year	2017 Test Year
1	Accounting Standard	MGAAP	MGAAP	MIFRS	MIFRS	MIFRS	MIFRS
2	Gross Fixed Assets	\$173,890,694	\$177,873,363	\$184,039,992	\$191,904,902	\$201,915,778	\$210,926,090
3	Accumulated Depreciation	(94,864,453)	(95,811,099)	(98,186,935)	(100,359,288)	(102,902,049)	(105,696,436)
4	Net Book Value	\$79,026,241	\$82,062,264	\$85,853,057	\$91,545,614	\$99,013,729	\$105,229,654
5	Average Net Book Value	\$79,026,241	\$78,200,311	\$83,957,661	\$88,699,335	\$95,279,671	\$102,121,691
6	Total Working Capital	\$110,099,088	\$111,628,601	\$117,269,802	\$124,168,955	\$135,182,658	\$134,349,729
7	Working Capital Allowance Factor	13.0%	13.0%	13.0%	13.0%	13.0%	7.5%
8	Working Capital Allowance	\$14,312,881	\$14,511,718	\$15,245,074	\$16,141,964	\$17,573,746	\$10,076,230
9	Rate Base	\$93,339,122	\$92,712,029	\$99,202,735	\$104,841,300	\$112,853,417	\$112,197,921

21 22

23

Thunder Bay Hydro's assets fall into two broad categories – The first is distribution plant, which includes
 assets such as distribution, substation buildings, poles, conductor, overhead and underground electricity
 distribution infrastructure, transformers, meters and substation equipment. The second is general plant
 which includes assets such as the operations/service center building, office furniture, transportation

equipment, communications technology, computer equipment and software, general equipment and tools.



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- 1 Thunder Bay Hydro currently has Rooftop Solar Generation non-distribution assets. For the purpose of
- 2 this Application all associated amounts (including the assets, accumulated depreciation, revenues and
- 3 costs) from these non-distribution assets have been excluded from Rate Base and all other calculations.

4 2.1.2 FIXED ASSET CONTINUITY STATEMENTS

5 Thunder Bay Hydro has completed the Fixed Asset Continuity Schedules (Board Appendix 2-BA) for the

- 6 2013 Board Approved, Historic Actuals for 2013 through 2015, the 2016 Bridge Year and the 2017 Test
- 7 Year.
- 8
- 9 These schedules are provided in Attachment 2-A of this Exhibit and have also been filed in live excel
- 10 format.
- 11 The above continuity schedules reconcile to the annual recorded depreciation expense. Table 2-2 below
- 12 reconciles between annual change in accumulated depreciation and depreciation expense.
- 13

14 TABLE 2-2: DEPRECIATION CONTINUITY SCHEDULE

		2013	2014			
Line		Actual	Actual	2015 Actual	2016 Bridge	2017 Test
No	Depreciation Expense	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
1	Accumulated Depreciation Closi	95,811,099	98,186,935	100,359,288	102,902,049	105,696,436
2	Accumulated Depreciation Oper	94,030,956	95,811,099	98,186,935	100,359,288	102,902,049
3	Change in Accumulated Deprecia	1,780,143	2,375,836	2,172,353	2,542,761	2,794,387
4						
5	Add Back Disposals	1,655,076	1,212,503	1,596,987	1,539,604	1,473,484
	Less Depreciation Expensed in					
6	Overhead Departments	(341,262)]	(497,156)]	(551,714)]	(610,608)]	(680,632)]
7						
8	Depreciation Expense	3,093,956	3,091,182	3,217,627	3,471,756	3,587,236

15

16 2.1.3 RATE BASE VARIANCE ANALYSIS

17 Thunder Bay Hydro has prepared the following table to illustrate the rate base variances for each required

18 comparator. The overall changes in rate base can be attributed to either Gross Assets or Working Capital

- 19 Allowance. For detailed variance explanations of these, please see 2.2.2 and Section 2.4.1 respectively.
- 20
- 21
- 22
- 23
- 24



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1 TABLE 2-3: RATE BASE VARIANCE SUMMARY

Line No.	Description	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Bridge Year	2017 Test Year
1	Accounting Standard	MGAAP	MGAAP	MIFRS	MIFRS	MIFRS	MIFRS
2	Gross Fixed Assets	\$173,890,694	\$177,873,363	\$184,039,992	\$191,904,902	\$201,915,778	\$210,926,090
3	Accumulated Depreciation	(94,864,453)	(95,811,099)	(98,186,935)	(100,359,288)	(102,902,049)	(105,696,436)
4	Net Book Value	\$79,026,241	\$82,062,264	\$85,853,057	\$91,545,614	\$99,013,729	\$105,229,654
5	Average Net Book Value	\$79,026,241	\$78,200,311	\$83,957,661	\$88,699,335	\$95,279,671	\$102,121,691
6	Total Working Capital	\$110,099,088	\$111,628,601	\$117,269,802	\$124,168,955	\$135,182,658	\$134,349,729
7	Working Capital Allowance Factor	13.0%	13.0%	13.0%	13.0%	13.0%	7.5%
8	Working Capital Allowance	\$14,312,881	\$14,511,718	\$15,245,074	\$16,141,964	\$17,573,746	\$10,076,230
9	Rate Base	\$93,339,122	\$92,712,029	\$99,202,735	\$104,841,300	\$112,853,417	\$112,197,921
10			2013 Board Approved vs. 2013 Actual	2013 Actual vs. 2014 Actual	2014 Actual vs. 2015 Actual	2015 Actual vs. 2016 Bridge Year	2016 Actual vs. 2017 Test Year
11	Accounting Standard		MGAAP	MIFRS	MIFRS	MIFRS	MIFRS
12	Gross Fixed Assets		\$3,982,669	\$6,166,629	\$7,864,910	\$10,010,876	\$9,010,312
13	Accumulated Depreciation		(946,646)	(2,375,836)	(2,172,353)	(2,542,761)	(2,794,387)
14	Net Book Value		\$3,036,023	\$3,790,793	\$5,692,557	\$7,468,115	\$6,215,925
15	Average Net Book Value		(825,930)	\$5,757,350	\$4,741,675	\$6,580,336	\$6,842,020
16	Total Working Capital		\$1,529,513	\$5,641,201	\$6,899,153	\$11,013,703	(832,929)
17	Working Capital Allowance Factor		13.0%	13.0%	13.0%	13.0%	7.5%
18	Working Capital Allowance		\$198,837	\$733,356	\$896,890	\$1,431,781	(7,497,516)
19	Rate Base		(627,093)	\$6,490,706	\$5,638,565	\$8,012,117	(655,496)

2







2.2 GROSS ASSETS – PROPERTY, PLANT & EQUIPMENT AND DEPRECIATION

3

4 2.2.1 BREAKDOWN BY FUNCTION

The table below categorizes Thunder Bay Hydro's assets into four categories; distribution plant, general 5 6 plant, contributions and grants and intangible assets. In accordance with the Uniform System of Accounts 7 ("USoA"), Thunder Bay Hydro has included gross assets as follows: 8 9 Intangible Plant Assets – includes USoA accounts 1606 to 1611, these accounts capture 10 assets such as software. Distribution Plant Assets – includes USoA accounts 1805 to 1860, these accounts capture 11 12 assets such as substation equipment, poles, wires, transformers and meters. General Plant Assets – includes USoA accounts 1905 to 1990, these accounts capture assets 13 14 such as operation service center buildings, computer hardware, transportation equipment and 15 tools. Contribution and Grants – includes USoA account 1995, this account captures all contributions 16 17 in aid of capital that Thunder Bay Hydro has received or forecasted to be received as per the Distribution System Code. Thunder Bay Hydro has presented USoA account 1995 and 2440 on a 18 19 net basis in this application. Details of 1995 Capital Contributions and 2440 Deferred Revenues 20 has been presented in Table 2-4 below. 21 22 23 24 25 26 27 28 29

- 30
- 31



1 TABLE **2-4:** CONTRIBUTIONS – DEFERRED REVENUE

Line No		OEB Account	2013	2014	2015	2016	2017
1	Contributions	1995	(14,435,768)	(14,003,098)	(13,570,428)	(13,137,758)	(12,705,088)
2	Deferred Revenues	2440		(2,110,762)	(4,023,632)	(5,151,334)	(6,336,641)
3			(14,435,768)	(16,113,860)	(17,594,060)	(18,289,092)	(19,041,728)

2 3

					Amortization	
				Contribution	of	Closing
			Opening	s/Deferred	Contribution	Balance Net
Line No		OEB Account	Net Balance	Revenue	s/Revenue	Balance
1	2013					
2	Contributions	1995	(13,065,469)	(1,792,509)	422,210	(14,435,768)
3	Deferred Revenues	2440	0	0	0	0
4			(13,065,469)	(1,792,509)	422,210	(14,435,768)
5						
6	2014					
7	Contributions	1995	(14,435,768)	0	432,670	(14,003,097)
8	Deferred Revenues	2440	0	(2,137,042)	26,279	(2,110,763)
9			(14,435,768)	(2,137,042)	458,949	(16,113,860)
10						
11	2015					
12	Contributions	1995	(14,003,097)		432,670	(13,570,427)
13	Deferred Revenues	2440	(2,110,763)	(1,984,671)	71,801	(4,023,633)
14			(16,113,860)	(1,984,671)	504,471	(17,594,060)
15						
16	2016					
17	Contributions	1995	(13,570,427)		432,670	(13,137,757)
18	Deferred Revenues	2440	(4,023,633)	(1,235,032)	107,330	(5,151,335)
19			(17,594,060)	(1,235,032)	540,000	(18,289,092)
20						
21	2017					
22	Contributions	1995	(13,137,757)		432,670	(12,705,087)
23	Deferred Revenues	2440	(5,151,335)	(1,326,298)	140,991	(6,336,641)
24			(18,289,092)	(1,326,298)	573,662	(19,041,728)

4 5

6 Detailed breakdown by major plant accounts is included in the variance analysis on gross assets in

7 Section 2.2.2 below.

8

9 2.2.2 VARIANCE ANALYSIS ON GROSS ASSET ADDITIONS

10 The following variance analysis has been prepared based on Thunder Bay Hydro's materiality threshold;

11 per the materiality calculation being noted in Exhibit 1, Section 1.7 of this Application. Accordingly,

12 Thunder Bay Hydro has chosen to use \$119,000 as its basis for the variance analysis of Gross Asset

13 Additions.



- 1 In Thunder Bay Hydro's daily operations, it forecasts, reports and analyzes gross asset additions on a
- 2 project categorization basis. Thunder Bay Hydro has prepared its variance analysis herein on the same
- 3 basis.

4 2013 BOARD APPROVED VERSUS 2013 ACTUAL

5 Thunder Bay Hydro experienced an overall decrease in gross assets between the 2013 Board Approved

6 and 2013 Actual of (\$2,360,119), as can be seen in the following Table 2-5.

7 TABLE 2-5: 2013 BOARD APPROVED VERSUS 2013 ACTUAL

Line	LISAA	Description	2013 Board	2012 Actual	Varianas
No.	USoA	Description	Approved	2013 Actual	Variance
1	Intangib	le Plant			
2	1609	Capital Contribution Pd - Gate Stn	\$1,272,321	\$1,272,321	\$0
3		Sub-total	\$1,272,321	\$1,272,321	\$0
4	Distribut	ion Plant			
5	1805	Land	\$133,038	\$133,038	\$0
6	1808	Buildings and Fixtures	\$7,112,389	\$7,209,919	\$97,530
7	1810	Leasehold Improvements	\$63,262	\$63,262	\$0
8	1815	Transformer Station Equipment > 50 kV	\$0	\$0	\$0
9	1820	Distribution Station Equipment < 50 kV	\$8,169,166	\$8,315,333	\$146,167
10	1830	Poles, Towers and Fixtures	\$35,943,578	\$34,898,676	(\$1,044,901)
11	1835	Overhead Conductors and Devices	\$36,073,169	\$35,024,992	(\$1,048,177
12	1840	Underground Conduit	\$14,319,390	\$14,566,565	\$247,175
13	1845	Underground Conductors and Devices	\$19,524,118	\$19,109,697	(\$414,422)
14	1850	Line Transformers	\$28,621,123	\$28,751,853	\$130,730
15	1855	Services (Overhead & Underground)	\$21,714,885	\$21,275,208	(\$439,677)
16	1860	Meters	\$9,186,207	\$9,123,013	(\$63,194)
17		Sub-total	\$180,860,324	\$178,471,554	(\$2,388,770)
18	General	Plant			
19	1915	Office Furniture and Equipment	\$1,456,091	\$1,462,617	\$6,526
20	1920	Computer Equipment - Hardware	\$3,053,135	\$3,057,261	\$4,126
21	1925	Computer Software	\$1,252,457	\$1,177,699	(\$74,758
22	1930	Transportation Equipment	\$6,906,848	\$7,254,571	\$347,723
23	1935	Stores Equipment	\$63,417	\$63,417	\$0
24	1940	Tools, Shop and Garage Equipment	\$2,564,045	\$2,540,603	(\$23,442
25	1945	Measurement and Testing Equipment	\$314,490	\$299,184	(\$15,306)
26	1950	Power Operated Equipment	\$217,887	\$215,882	(\$2,005
27	1955	Communication Equipment	\$342,299	\$276,683	(\$65,616
28	1980	System Supervisory Equipment	\$515,152	\$323,861	(\$191,291
29		Sub-total	\$16,685,820	\$16,671,777	(\$14,042
30	Contribu	tion and Grants			
31	1995	Contributions and Grants	(\$18,584,982)	(\$18,542,289)	\$42,693
-			(0.10 - 0.1 - 0.00)		¢ 40,000
32		Sub-total	(\$18,584,982)	(\$18,542,289)	\$42,693



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1 DISTRIBUTION PLANT

2 ACCOUNT 1820 – DISTRIBUTION STATION EQUIPMENT < 50kV \$146,167

- 3 This variance is due to an allocation difference between Account 1820 and 1930.
- 4

5 ACCOUNT 1830 – POLES, TOWERS, & FIXTURES (\$1,044,901)

- 6 This variance is made up of the following differences:
- 7
- 8 The \$834,550 variance between the estimated 2012 capitalized expenditures and actual capital
- 9 expenditures was the result of a large voltage conversion project that was estimated to be complete and
- 10 capitalized by the end of 2012 but was not actually completed until January 2013.
- 11 The variance between the estimated 2013 capitalized expenditures and actual 2013 capital expenditures
- 12 of (\$92,321) was the result of smaller scale variances in the 4kV to 25kv conversion projects due to
- 13 longer lead times due to commercial services requiring outage times outside of regular hours. This led to
- 14 an increase in labour hours on these projects but required a deferral of the project costs related to pole
- 15 setting and work completed. Increase in work on services (Ogden-McMurray) led to a decrease in the
- 16 amount spent on pole setting.
- 17 A variance between the estimated and actual asset disposals was (\$117,255). Disposals were estimated
- 18 in the 2013 Cost of Service Application as a part of the modification of CGAAP to MGAAP to be more in
- 19 line with IFRS. This was estimated at the time given that there was no historical information in which to
- 20 base this calculation on.

21 ACCOUNT 1835 – OVERHEAD CONDUCTORS AND DEVICES (\$1,048,177)

22 The 2013 capitalized expenditures were \$955,616 lower than 2013 Board Approved capital expenditures.

- 23 A significant portion of this related to the planned Horizon Wind Renewable Generation Project which did
- not proceed as planned. As a result, budgeted renewable enabling improvements in the amount of
- 25 \$144,678 were not required. See section 2.6.12 below with regards to Cost of Eligible Investments for
- the Connection of Qualifying Generation Facilities. In addition due to the timing and final approval of the
- 27 2013 Cost of Service Application, the utility deferred certain capital investment projects to 2014 and 2015.
- 28
- Additionally, the 2013 asset disposals were \$92,324 higher than budgeted. As explained above,
- 30 disposals were estimated for the first time for the 2013 Cost of Service Application.
- 31
- 32
- 33



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1 ACCOUNT 1840 – UNDERGROUND CONDUIT \$247,175

2 This was the result of an increase in General Services which included several new underground services 3 that required underground conduit to be installed including: 1260 Golf Links Road Medical Office Building, 4 Fort William Road, Target, 1159 Russel Street, Peterson Machine Shop. General Services are budgeted 5 based on historical averages and as a result, can vary in any one year where there larger general service 6 connections. 7 8 ACCOUNT 1845 – UNDERGROUND CONDUCTORS AND DEVICES (\$414,422) 9 The variance between the estimated and actual capitalized expenditures was (\$420,915). Additional 10 investments were deferred to subsequent years as referenced above. 11 12 ACCOUNT 1850 - LINE TRANSFORMERS \$130,730 13 The variance between the estimated and actual capitalized expenditures is \$216,645. This is a result of 14 work completed on defective transformers in 2013. Due to a higher than average failure rate, 34 15 transformers were replaced due to failure related reasons. 16 17 Offsetting the foregoing was the related asset disposal activity which resulted in \$144,738 more than 18 budgeted. As explained above, disposals were estimated for the first time for the 2013 Cost of Service 19 Application. 20 21 In addition, as a result of amending amortization and capitalization policies to be more in line with IFRS, 22 effective January 1, 2013 there was an adjustment to the accumulated amortization associated with 23 transformers held for back up of field assets. Under GAAP, transformer inventory was added to PP&E 24 and amortized. Upon transition of policies, spare transformers continue to be presented as PP&E but are 25 not amortized until put into service. Per review of Transformer inventory as at January 1, 2013, 26 accumulated amortization on transformers in inventory was \$436K. Thunder Bay Hydro reduced the 27 transformer inventory values for the depreciation already recognized on the assets. This adjustment was 28 presented as part of the asset additions and accumulated asset disposals on the 2013 Fixed Asset 29 Continuity Schedule. This was adjusted to ensure that only the net value of the transformers would be 30 capitalized and amortized on. 31 32 ACCOUNT 1855 – SERVICES (OVERHEAD & UNDERGROUND) (\$439,677) 33 This variance is made up of the following differences:



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- 1 Variance between the 2013 estimated capitalized expenditures and the actual 2013 capitalized
- 2 expenditures (\$584,107). This was the result of differences between charges that were
- 3 estimated to be capitalized to this account were capitalized to other capital asset accounts. In
- 4 addition there was a reduction in requests for connections of General Services in 2013.
- 5 Variance between the 2013 estimated disposals and 2013 actual disposals of \$144,489. As
- 6 explained above, disposals were estimated for the first time for the 2013 Cost of Service
- 7 Application.

8 GENERAL PLANT

9 ACCOUNT 1930 – TRANSPORTATION EQUIPMENT \$347,723

- 10 This variance is simply timing of the disposal of fleet assets budgeted for in the 2013 Cost of Service
- 11 Application actually occurred in 2014 resulting in the higher closing asset balance in this account for the
- 12 2013 Actual.

13 ACCOUNT 1980 – SYSTEM SUPERVISORY EQUIPMENT (\$191,291)

- 14
- 15 This variance is due to an allocation difference between Account 1820 and 1930.
- 16

17 2013 ACTUAL VERSUS 2014 ACTUAL

- 18 Thunder Bay Hydro has an overall increase in gross assets between the 2013 Actual and 2014 Actual of
- 19 \$6,166,629, as can be seen in Table 2-6 2013 Actual vs. 2014 Actual below:
- 20
- 21
- 22
- ---
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1 TABLE 2-6: 2013 ACTUAL VERSUS 2014 ACTUAL

Line No.	USoA	Description	2013 Actual	2014 Actual	Variance
1	Intangib	le Plant			
2	1609	Capital Contribution Pd - Gate Stn	\$1,272,321	\$1,272,321	\$0
3		Sub-total	\$1,272,321	\$1,272,321	\$0
4	Distribut	ion Plant			
5	1805	Land	\$133,038	\$133,038	\$0
6	1808	Buildings and Fixtures	\$7,209,919	\$7,211,448	\$1,529
7	1810	Leasehold Improvements	\$63,262	\$63,262	\$0
8	1815	Transformer Station Equipment > 50 kV	\$0	\$0	\$0
8	1820	Distribution Station Equipment < 50 kV	\$8,315,333	\$8,315,333	\$0
9	1830	Poles, Towers and Fixtures	\$34,898,676	\$37,558,115	\$2,659,438
10	1835	Overhead Conductors and Devices	\$35,024,992	\$36,316,005	\$1,291,013
11	1840	Underground Conduit	\$14,566,565	\$14,501,643	(\$64,921)
12	1845	Underground Conductors and Devices	\$19,109,697	\$20,088,339	\$978,642
13	1850	Line Transformers	\$28,751,853	\$30,393,949	\$1,642,096
14	1855	Services (Overhead & Underground)	\$21,275,208	\$22,172,737	\$897,529
15	1860	Meters	\$9,123,013	\$9,352,376	\$229,363
16		Sub-total	\$178,471,554	\$186,106,244	\$7,634,690
17	General	Plant			
18	1915	Office Furniture and Equipment	\$1,462,617	\$1,486,967	\$24,350
19	1920	Computer Equipment - Hardware	\$3,057,261	\$3,113,439	\$56,178
20	1925	Computer Software	\$1,177,699	\$1,240,119	\$62,420
21	1930	Transportation Equipment	\$7,254,571	\$7,559,287	\$304,716
22	1935	Stores Equipment	\$63,417	\$63,417	\$0
23	1940	Tools, Shop and Garage Equipment	\$2,540,603	\$2,701,190	\$160,587
24	1945	Measurement and Testing Equipment	\$299,184	\$317,728	\$18,545
25	1950	Power Operated Equipment	\$215,882	\$215,882	\$0
26	1955	Communication Equipment	\$276,683	\$279,830	\$3,147
27	1980	System Supervisory Equipment	\$323,861	\$362,898	\$39,038
28		Sub-total	\$16,671,777	\$17,340,758	\$668,981
29	Contribu	ition and Grants			
30	1995	Contributions and Grants	(\$18,542,289)	(\$20,679,331)	(\$2,137,042)
31		Sub-total	(\$18,542,289)	(\$20,679,331)	(\$2,137,042)
32		Grand Total	\$177,873,363	\$184,039,992	\$6,166,629

2

3 DISTRIBUTION PLANT

4 ACCOUNT 1830 – POLES, TOWERS, & FIXTURES \$2,659,438

5 The variances in this account can be attributed to the following investment categories;

6

• Recoverable (Accidents and Make Ready work)



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- Relocations
- 4kV to 25kV Voltage Conversions

3 The recoverable investment category relates to investments in assets which have been either damaged

4 or require replacement due to joint use attachments. An increase in joint use attachments due to projects

5 by the local telecommunications company has required replacement of poles in 2014 that were not

6 previously planned for replacement in the next 10 years. However, due to the increased stress of an

7 additional attachment and in some cases substandard height or framing standards, the poles required

8 replacement.

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- 9 There were two relocation projects required by the City of Thunder Bay to accommodate road widening
- 10 along Golf Links and Valley Streets. These projects contributed (\$284k) and (\$404k) respectively.
- Thunder Bay Hydro continued its system renewal activities and in 2014 decommissioned McPherson 11
- 12 substation and replaced all of the poles, towers and fixtures associated with this substation.
- 13 The number of new poles installed by Thunder Bay Hydro from internal and customer driven activities 14 totaled 536.

15 ACCOUNT 1835 – OVERHEAD CONDUCTORS AND DEVICES \$1,291,013

16 As referenced in the above variance explanation for Poles, Towers and Fixtures, Thunder Bay Hydro

- 17 continued significant system renewal activities in 2014 and of the poles that were replaced, 444 were part
- of voltage conversion projects and required replacement of the associated overhead conductors and 18
- 19 fixtures.

ACCOUNT 1845 - UNDERGROUND CONDUCTORS AND DEVICES \$978,642 20

- 21 This variance is primarily due to an increase in subdivision developments from 2013 to 2014 with 4
- 22 subdivisions being actively developed, as well as two others in the preliminary/ clean up stages;
- 23 Parkdale Stage 5 (64 lots) •
- 24 Tuscany Estates (59 lots) •
 - Hutton Park Stage 3 (27 lots) •
- 26 River Terrace Stage 9 (67 lots) • 27
 - Preliminary Whiskey Jack (25 lots) •
 - Clean up Gemstone Stage (43 lots) •
- 29 Thunder Bay Hydro also completed an additional underground project to enhance connection between
- 30 the 10M3 to 17M1 feeders in the Main Street area. This project included a 250m three phase
- 31 underground feed of 1000 kcmil.
- 32

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1 ACCOUNT 1850 – LINE TRANSFORMERS \$1,642,096

- 2 This variance is significantly attributed to investments related to conversion projects. The 2014 ratio of
- 3 underground transformers to overhead transformers installed was greater than in previous years (53
- 4 units' vs 41 units in 2013). As underground transformers are typically a higher material cost as well as a
- 5 higher installation cost, an increase is seen in this account.
- 6 The variance in this account is also in part due to;
- An increase in spending (\$90K) in the PCB program to remove all >50ppm transformers
 from the system by 2017.
- 9 Large three phase vault transformer replacement for Waverley Towers apartment
 10 complex (\$210K)
- The installation of new three phase switchgear at the Airport (\$119K)

12 ACCOUNT 1855 – SERVICES (OVERHEAD & UNDERGROUND) \$897,529

- 13 The variance in this account relates to the increase in subdivision lots being available and the subsequent
- 14 increase in residential underground services being requested by customers. There were 242 new
- 15 customer connections made by Thunder Bay Hydro which is an increase compared to 2013's 229
- 16 connections.
- 17 There was also a significant increase in customer connections greater than 200A, as 2014 saw 38
- 18 connections as compared to the previous year's 22.

19 ACCOUNT 1860 – METERS \$229,363

- 20 This variance can be attributed to the following investments:
- Retail meter replacements, and
 - Commercial and residential investments.
- 23 Retail meter replacement projects capture all costs associated with the deployment or upgrade of retail
- 24 meters. In 2014, these projects contributed approximately \$65K to this variance which is the typical
- 25 annual investment related to meters.
- 26 Commercial and residential investments relate to work completed to add, upgrade or replace assets to
- 27 service new or existing commercial or residential customers. These requests contributed approximately
- 28 \$71K of meter investments in 2014 to this variance.

29



1 GENERAL PLANT

2 ACCOUNT 1930 – TRANSPORTATION EQUIPMENT \$304,716

3 The variance in this account can be attributed to Thunder Bay Hydro's annual budgeted replacement of

- 4 transportation equipment. In 2014, Thunder Bay Hydro acquired the following significant transportation
- 5 assets;

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- 6 Truck #93
 - Truck #94
 - Truck #96
- 9 Truck #98
- 10 Double bucket #95
- 11 Pole trailer
 - 3 way dump trailer
 - 4 walk in truck toppers
- 14 The above assets were acquired in part due to the retirement of the following;
- 15 1994 Double bucket #9
- 16 2003 Truck #19
- 17 2001 Truck #40
 - 1996 Truck #33
- 19 1998 Truck #27

20 ACCOUNT 1940 – TOOLS, SHOP AND GARAGE EQUIPMENT \$160,587

- 21 This variance relates to annual budgeted replacement of tools in Thunder Bay Hydro. Some significant
- 22 investments include;
- 2 line locator kits
 - 4 battery crimp / cutter tools
- 10 load break tools
 - 3 break safe tools
 - Puller tensioner equipment
- 28

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29 CONTRIBUTION AND GRANTS

30 ACCOUNT 1995 – CONTRIBUTION AND GRANTS (\$2,137,042)

- 31 Although this variance is above the specified threshold Thunder Bay Hydro received \$1,260K in
- 32 Contributed Capital in 2013 and the value of \$1,678K is within the range of contributions expected by
- 33 Thunder Bay Hydro. The contributions increased compared to 2013 due to an overall increase of
- 34 customer driven work of \$753K and primarily due to work requested by the City of Thunder Bay for road
- 35 widening.
- 36



1 2014 Actual versus 2015 Actual

- 2 Thunder Bay Hydro experienced an overall increase in gross assets between the 2014 Actual and 2015
- 3 Actual of \$7,864,910, as can be seen in Table 2-7 below:

4 TABLE 2-7: 2014 ACTUAL VERSUS 2015 ACTUAL

Line No.	USoA	Description	2014 Actual	2015 Actual	Variance				
1	1 Intangible Plant								
2	1609	Capital Contribution Pd - Gate Stn	\$1,272,321	\$1,272,321	\$0				
3		Sub-total	\$1,272,321	\$1,272,321	\$0				
4	Distribut	ion Plant							
5	1805	Land	\$133,038	\$133,038	\$0				
6	1808	Buildings and Fixtures	\$7,211,448	\$7,364,283	\$152,835				
7	1810	Leasehold Improvements	\$63,262	\$63,262	\$0				
8	1820	Distribution Station Equipment < 50 kV	\$8,315,333	\$8,315,333	\$0				
9	1830	Poles, Towers and Fixtures	\$37,558,115	\$41,425,920	\$3,867,806				
10	1835	Overhead Conductors and Devices	\$36,316,005	\$38,275,567	\$1,959,561				
11	1840	Underground Conduit	\$14,501,643	\$15,306,002	\$804,358				
12	1845	Underground Conductors and Devices	\$20,088,339	\$20,600,869	\$512,530				
13	1850	Line Transformers	\$30,393,949	\$31,423,917	\$1,029,968				
14	1855	Services (Overhead & Underground)	\$22,172,737	\$22,578,084	\$405,347				
15	1860	Meters	\$9,352,376	\$9,791,618	\$439,242				
16		Sub-total	\$186,106,244	\$195,277,892	\$9,171,648				
17	General	Plant							
18	1915	Office Furniture and Equipment	\$1,486,967	\$1,585,517	\$98,551				
19	1920	Computer Equipment - Hardware	\$3,113,439	\$3,236,818	\$123,379				
20	1925	Computer Software	\$1,240,119	\$1,293,625	\$53,506				
21	1930	Transportation Equipment	\$7,559,287	\$7,597,012	\$37,725				
22	1935	Stores Equipment	\$63,417	\$63,417	\$0				
23	1940	Tools, Shop and Garage Equipment	\$2,701,190	\$2,823,673	\$122,483				
24	1945	Measurement and Testing Equipment	\$317,728	\$359,187	\$41,458				
25	1950	Power Operated Equipment	\$215,882	\$412,564	\$196,682				
26	1955	Communication Equipment	\$279,830	\$283,980	\$4,150				
27	1980	System Supervisory Equipment	\$362,898	\$362,898	\$0				
28		Sub-total	\$17,340,758	\$18,018,691	\$677,933				
29	Contribu	ition and Grants							
30	1995	Contributions and Grants	(\$20,679,331)	(\$22,664,002)	(\$1,984,671)				
31		Sub-total	(\$20,679,331)	(\$22,664,002)	(\$1,984,671)				
32		Grand Total	\$184,039,992	\$191,904,902	\$7,864,910				

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7 DISTRIBUTION PLANT

8 ACCOUNT 1808 – BUILDING AND FIXTURES \$152,835

9 In 2015, Thunder Bay Hydro completed siding and roofing upgrades to the Operations/Service Center as

10 well as paving work.



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1 ACCOUNT 1830 - POLES, TOWERS, & FIXTURES \$3,867,806

- 2 The variance in this account is mostly attributed to the following investment categories;
- 3
- 4kV to 25kV Voltage Conversions
- 4 Recoverable Work requested by Customers •
- 5 Thunder Bay Hydro continued its significant system renewal activities in 2015, and decommissioned
- 6 Balsam substation and replaced all of the poles, towers and fixtures associated with this substation. The
- 7 number of new poles installed by Thunder Bay Hydro from internal and customer driven activities totaled
- 8 543.
- 9 The recoverable investment category relates to both investments in assets which have been either
- 10 damaged or require replacement, as well as investments that are fully paid for by the customer. There
- 11 were 23 poles installed in 2015, which is a higher compared to 2014 in which Thunder Bay Hydro
- 12 installed only 10 poles. This was due to a continued increase in joint use attachments as well as an
- 13 increase in accident poles.

ACCOUNT 1835 - OVERHEAD CONDUCTORS AND DEVICES \$1,959,561 14

- 15 In accordance with the variances in Account 1830, the variance in the overhead conductors and devices
- 16 account can also be attributed to the following investment categories;
- 17

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- 4kV to 25kV Voltage Conversions
- Recoverable Work requested by Customers ٠
- 19 Of the poles installed by Thunder Bay Hydro in 2015, 401 were related to conversion projects and had
- 20 budgeted replacement of conductors and devices.
- 21 Additionally, Thunder Bay Hydro installed a protective device as part of its 'Worst Performing Feeder'
- 22 analysis (\$48K), and 2 protective devices were installed as part of the requirements for connecting the
- 23 Thunder Bay Regional Health Sciences Center co-generation facility (\$97K).

24 ACCOUNT 1840 – UNDERGROUND CONDUIT \$804,358

- 25 This variance can be attributed to several underground projects which included new conduit, these
- 26 included;

- 27 St. Joseph's Care group (2,400m) •
- 28 Nav Canada (3,200m) 29
 - 10M8 reconstruction (1,140 m) •
 - New Underground Residential and Commercial services



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1 ACCOUNT 1845 – UNDERGROUND CONDUCTORS AND DEVICES \$512,530

- 2 In 2015 the project for the 10M8 Reconfiguration / Reconstruction project were modified from an
- 3 overhead to an underground feed in order to better meet the expectations of customers impacted by the
- 4 project. The project required 1,140m of 1000 kcmil conductors to be installed (\$115K).
- 5 In addition to the St. Joseph's Care group and Nav Canada also required 2,400 & 510m respectively of
- 6 1/0 AWG conductor to be installed.
- 7 In addition to the above, Thunder Bay Hydro continued to install customer service upgrades as well as
- 8 new services and there were approximately 10 underground services upgraded as part of the voltage
- 9 conversion program.

10 ACCOUNT 1850 – LINE TRANSFORMERS \$1,029,968

- 11 The variance in this account can be attributed to the following investment categories;
- 4kV to 25kV Voltage Conversions
 - New customer connections
 - Upgrades to existing connections
 - PCB Transformer replacement program
- 16 Overall Thunder Bay Hydro installed 218 new transformers as a part of the above programs in 2015.

17 ACCOUNT 1855 – SERVICES (OVERHEAD & UNDERGROUND) \$405,347

- 18 The variance in this account is a result of the installation of 193 new customer connections, which
- 19 includes both underground and overhead requests.

20 ACCOUNT 1860 – METERS \$439,242

- 21 This variance is related to the following investment categories:
- Smart Meter replacements, and
 - New Meter investments.
- 24 Smart Meter replacement projects capture all costs associated with the replacement of residential and
- 25 MIST smart meters that have failed after being in service for a period of time. In 2015, these projects
- 26 contributed approximately \$236K.
- 27 Commercial and residential new meter installations relate to work completed to add, upgrade or replace
- assets to service new or existing customers. These requests contributed approximately \$100K of meter
- 29 investments in 2014 to this variance.
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GENERAL PLANT 1

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2 ACCOUNT 1920 – COMPUTER EQUIPMENT - HARDWARE \$123,379

- 3 The following significant investments were completed in 2015:
 - Routine computer replacements for approximately \$39K, .
 - Purchase and installation of a new Cisco Switches, Disk drives and computers for the continued virtualization of servers \$85K

7 ACCOUNT 1940 - TOOLS, SHOP AND GARAGE EQUIPMENT \$122,483

- 8 The variance in this account can be attributed to Thunder Bay Hydro acquiring the following equipment:
- 9 Surveying equipment •
 - Engineering Map site tool •
- 11 4 hydraulic impact wrenches •
- 3 load break tools 12 •
 - 6 meter base extension cables •
 - 3 meter base jumper kits •
 - 2 wireless phasing kits ٠
 - Battery powered crimper •
- 17 3 insulation testers • 18
 - 3 potential indicators •
- 19 Through 2015, Thunder Bay Hydro also accumulated disposals due to retiring the following:
- 20 42 inch scanner •
 - Space cap topper #25 and #50 ٠

22 ACCOUNT 1950 – POWER OPERATED EQUIPMENT \$196,682

23 This variance is due to the purchase of a stringing machine.

24 ACCOUNT 1995 - CONTRIBUTION AND GRANTS (\$1,984,671)

- 25 Thunder Bay Hydro traditionally receives, on average, \$1.8M per year in Contributed Capital. For 2015
- 26 this is about \$175K over the average. This relates to work completed for the connection of the
- 27 cogeneration facility at Thunder Bay Regional Health Sciences Center (\$97k) as well as the preliminary
- 28 work on the connection of the cogeneration facility at Canada Malting.

29 2015 ACTUAL VERSUS 2016 BRIDGE YEAR

- 30 Thunder Bay Hydro expects an overall increase in gross assets between the 2015 Actual and 2016
- 31 Bridge Year of \$10,010,876, as can be seen in Table 2-8 '2015 Actual vs. 2016 Bridge Year' below:
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1 TABLE 2-8: 2015 ACTUAL VERSUS 2016 BRIDGE YEAR

Line No.	USoA	Description	2015 Actual	2016 Bridge Year	Variance			
1	Intangib	le Plant						
2	1609	Capital Contribution Pd - Gate Stn	\$1,272,321	\$1,272,321	\$0			
3		Sub-total	\$1,272,321	\$1,272,321	\$0			
4	4 Distribution Plant							
5	1805	Land	\$133,038	\$129,852	(\$3,186)			
6	1808	Buildings and Fixtures	\$7,364,283	\$7,445,283	\$81,000			
7	1810	Leasehold Improvements	\$63,262	\$113,262	\$50,000			
8	1820	Distribution Station Equipment < 50 kV	\$8,315,333	\$8,315,333	\$0			
9	1830	Poles, Towers and Fixtures	\$41,425,920	\$44,121,457	\$2,695,537			
10	1835	Overhead Conductors and Devices	\$38,275,567	\$41,785,578	\$3,510,011			
11	1840	Underground Conduit	\$15,306,002	\$15,657,081	\$351,079			
12	1845	Underground Conductors and Devices	\$20,600,869	\$21,282,756	\$681,887			
13	1850	Line Transformers	\$31,423,917	\$33,092,881	\$1,668,964			
14	1855	Services (Overhead & Underground)	\$22,578,084	\$22,840,891	\$262,807			
15	1860	Meters	\$9,791,618	\$10,270,130	\$478,512			
16		Sub-total	\$195,277,892	\$205,054,503	\$9,776,611			
17	General	Plant						
18	1915	Office Furniture and Equipment	\$1,585,517	\$1,606,914	\$21,397			
19	1920	Computer Equipment - Hardware	\$3,236,818	\$3,343,504	\$106,686			
20	1925	Computer Software	\$1,293,625	\$1,370,625	\$77,000			
21	1930	Transportation Equipment	\$7,597,012	\$8,294,899	\$697,887			
22	1935	Stores Equipment	\$63,417	\$63,417	\$0			
22	1940	Tools, Shop and Garage Equipment	\$2,823,673	\$2,939,173	\$115,500			
23	1945	Measurement and Testing Equipment	\$359,187	\$385,437	\$26,250			
24	1950	Power Operated Equipment	\$412,564	\$389,910	(\$22,654)			
25	1955	Communication Equipment	\$283,980	\$283,980	\$0			
25	1980	System Supervisory Equipment	\$362,898	\$810,129	\$447,231			
26		Sub-total	\$18,018,691	\$19,487,988	\$1,469,297			
27	Contribu	tion and Grants						
28	1995	Contributions and Grants	(\$22,664,002)	(\$23,899,034)	(\$1,235,032)			
29		Sub-total	(\$22,664,002)	(\$23,899,034)	(\$1,235,032)			
30		Grand Total	\$191,904,902	\$201,915,778	\$10,010,876			

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4 ACCOUNT 1830 – POLES, TOWERS, & FIXTURES \$2,695,537

5 The variances in this account can be attributed to the following investment categories;

- Recoverable
- Small Pole Replacements
- 8 Lines Safety Reports
 - 4kV to 25kV Voltage Conversions



- 1 The Recoverable investment category is the requirement for replacement of poles due to Joint Use
- 2 attachment requests. Thunder Bay Hydro expects an investment of approximately \$70K due to this
- 3 customer driven requirement.
- 4 Small Pole Replacements and Lines Safety Reports are investment categories that are driven by
- 5 customer and internal safety reports, and are addressed within the fiscal year. In 2016 Thunder Bay
- 6 Hydro expects to see expenditures of approximately \$425K in this category.
- 7 Thunder Bay Hydro continued its voltage conversion activities by replacing all the Poles Towers and
- 8 Fixtures associated with the following projects; Victoria-James, Isabella-James and Dacre-Leslie.

9 ACCOUNT 1835 – OVERHEAD CONDUCTORS AND DEVICES \$3,510,011

- 10 The variances in this account are primarily due to the installation of new conductor and devices for
- 11 General Service customers which are expected to be approximately \$250K, Customer Driven Expansions
- 12 \$115k, Recoverable \$115k and Voltage Conversion Projects \$2.2M.

13 ACCOUNT 1840 – UNDERGROUND CONDUIT \$351,079

- 14 New subdivision expansions and residential services make up more than half of this variance. These
- 15 projects require underground conduit as a standard requirement for their installation. In addition there are
- 16 several underground services in the voltage conversion projects that will require underground conduit.

17 ACCOUNT 1845 – UNDERGROUND CONDUCTORS AND DEVICES \$681,887

- 18 This variance is in large part due to the installation of new General Services \$250K as well as the
- 19 underground conductors that are repaired and replaced as part of a safety concern or replacement of a
- 20 pad mount transformer under Transformer and Switch replacements \$98K. There are also several
- 21 underground conductor replacements completed under the voltage conversion projects \$85K.
- 22 In addition there is a City of Thunder Bay recoverable project to install new underground cable in the
- 23 Marina development project \$115K.

24 ACCOUNT 1850 – LINE TRANSFORMERS \$1,668,964

- 25 The majority of line transformers expenditures are completed under the Transformer and Switch
- 26 replacement project \$838K and Voltage Conversion projects \$410K.

27 ACCOUNT 1855 – SERVICES (OVERHEAD & UNDERGROUND) \$262,807

- 28 The General and Residential Service connections accounts make up all of the additions in the Services
- 29 account. Thunder Bay Hydro expects 200 new residential services and 30 new general services in 2016.



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1 ACCOUNT 1860 – METERS \$478,512

- 2 New meters are installed as part of any new service request such as General Services and Residential
- 3 Services \$210K. In addition Thunder Bay Hydro replaces failed meters from all customer classes and will
- 4 begin its meter sampling program in 2016. In 2016 the meter sampling program is expected to test
- 5 approximately 500 meters.

6 ACCOUNT 1930 - TRANSPORTATION EQUIPMENT \$697,887

- 7 In 2016 Thunder Bay Hydro will see expenditures for the following vehicles;
 - New RBD to replace #4 RBD vintage 2000 (\$255K)
 - New Single Bucket truck to replace #57 Single Bucket vintage 1998 (\$190K)
- Partial Expenditure for new Double Bucket to replace #3 Double Bucket vintage 2001
 (\$125K)
 - New crew cabs to replace #21, #23 (\$90K)

13 ACCOUNT 1980 – SYSTEM SUPERVISORY EQUIPMENT \$447,231

- 14 The variance in this account is due to the upgrade of the no longer supported VMS based SCADA system
- to a windows based SCADA system. This upgrade included the installation of hardware, software and
- 16 video wall.

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17 ACCOUNT 1995 – CONTRIBUTIONS AND GRANTS (\$1,235,032)

- 18 This variance is related to the contributions from commercial and residential customers forecasted service
- 19 connections in 2016. The number is not as large as the historical information as Thunder Bay Hydro has
- 20 not included an amount for contributions-in-kind nor are the assets contributed included in the additions
- 21 (net impact on the Rate Base is nil and as such, excluded).

22 **2016 BRIDGE YEAR VERSUS 2017 TEST YEAR**

- 23 Thunder Bay Hydro expects an overall increase in gross assets between the 2016 Bridge Year and the
- 24 2017 Test Year of \$9,010,312, as can be seen in Table 2-9 "2016 Bridge vs. 2017 Actual Year' below:
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1 TABLE 2-9: 2016 BRIDGE YEAR VERSUS 2017 TEST YEAR

Line	USoA	Description	2016	2017	Variance			
No.			Bridge Year	Test Year				
1	Intangib		I	.	÷ -			
2	1609	Capital Contribution Pd - Gate Stn	\$1,272,321	\$1,272,321	\$0			
3		Sub-total	\$1,272,321	\$1,272,321	\$0			
4	4 Distribution Plant							
5	1805	Land	\$129,852	\$129,852	\$0			
6	1808	Buildings and Fixtures	\$7,445,283	\$7,527,283	\$82,000			
7	1810	Leasehold Improvements	\$113,262	\$113,262	\$0			
8	1820	Distribution Station Equipment < 50 kV	\$8,315,333	\$8,315,333	\$0			
9	1830	Poles, Towers and Fixtures	\$44,121,457	\$47,560,737	\$3,439,280			
10	1835	Overhead Conductors and Devices	\$41,785,578	\$44,808,764	\$3,023,186			
11	1840	Underground Conduit	\$15,657,081	\$15,935,751	\$278,670			
12	1845	Underground Conductors and Devices	\$21,282,756	\$22,068,203	\$785,447			
13	1850	Line Transformers	\$33,092,881	\$34,316,171	\$1,223,290			
14	1855	Services (Overhead & Underground)	\$22,840,891	\$23,066,097	\$225,206			
15	1860	Meters	\$10,270,130	\$10,587,728	\$317,598			
16		Sub-total	\$205,054,503	\$214,429,180	\$9,374,677			
17	General	Plant						
18	1915	Office Furniture and Equipment	\$1,606,914	\$1,664,914	\$58,000			
19	1920	Computer Equipment - Hardware	\$3,343,504	\$3,492,004	\$148,500			
20	1925	Computer Software	\$1,370,625	\$1,433,125	\$62,500			
21	1930	Transportation Equipment	\$8,294,899	\$8,636,902	\$342,003			
22	1935	Stores Equipment	\$63,417	\$63,417	\$0			
22	1940	Tools, Shop and Garage Equipment	\$2,939,173	\$3,040,673	\$101,500			
23	1945	Measurement and Testing Equipment	\$385,437	\$460,437	\$75,000			
24	1950	Power Operated Equipment	\$389,910	\$389,910	\$0			
25	1955	Communication Equipment	\$283,980	\$283,980	\$0			
25	1980	System Supervisory Equipment	\$810,129	\$984,559	\$174,430			
26		Sub-total	\$19,487,988	\$20,449,921	\$961,933			
27	Contribu	tion and Grants						
28	1995	Contributions and Grants	(\$23,899,034)	(\$25,225,332)	(\$1,326,298)			
29		Sub-total	(\$23,899,034)	(\$25,225,332)	(\$1,326,298)			
30		Grand Total	\$201,915,778	\$210,926,090	\$9,010,312			

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3 ACCOUNT 1830 – POLES, TOWERS, & FIXTURES \$3,439,280

- 4 The variances in this account can be attributed to the following investment categories;
 - System Relocations
 - Small Pole Replacements
 - Lines Safety Reports
 - 4kV to 25kV Voltage Conversions
 - 25kV Pole Replacements



- 1 Thunder Bay Hydro has been informed by the City of Thunder Bay that the Balmoral St. Road Widening
- 2 has been budgeted and requires the movement / replacement of Thunder Bay Hydro owned poles which
- 3 will incur \$105k in expenditures.
- 4 Small Pole Replacements and Lines Safety Reports are investment categories that are driven by
- 5 customer and internal safety reports, and are addressed within the fiscal year. In 2016 Thunder Bay
- 6 Hydro expects to see expenditures of approximately \$420k for the replacement of poles, towers and
- 7 fixtures in these categories.
- 8 Thunder Bay Hydro will continued its voltage conversion activities by replacing all the Poles Towers and
- 9 Fixtures associated with the following projects; Black Bay-Dewe, Dewe-Rita and Finlayson-Brodie.
- 10 In addition Thunder Bay Hydro is beginning more proactive replacement of poles on the 25kV system and
- 11 poles in the 25kV Pole Replacements will amount to \$191k.

12 ACCOUNT 1835 – OVERHEAD CONDUCTORS AND DEVICES \$3,023,186

- 13 The variances in this account are primarily due to the replacement of existing and installation of new
- 14 overhead devices in Voltage Conversion Projects Dewe-Rita and Black-Bay Dewe totaling \$2M. In
- addition there are overhead device installations in the 25kV Pole Replacements and Lines Safety
- 16 Reports.

17 ACCOUNT 1840 – UNDERGROUND CONDUIT \$278,670

- 18 The bulk of this variance is in new subdivision expansions and residential services \$120K. These projects
- 19 require underground conduit as a standard requirement for their installation. In addition there are several
- 20 underground services in the voltage conversion projects that will require underground conduit.

21 ACCOUNT 1845 – UNDERGROUND CONDUCTORS AND DEVICES \$785,447

- 22 This variance is expected to be in large part due to the installation of new underground feeder cable out
- 23 of the Fort William TS. This project will install approximately \$280K of new underground feeder cable
- 24 General Services \$185K as well as the underground conductors that are repaired and replaced as part of
- a safety concern or replacement of a pad mount transformer through Transformer and Switch
- 26 replacements (\$75K). There are also several voltage conversion projects that will require new
- 27 underground conductors as they are uprated to 25kV.
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1 ACCOUNT 1850 – LINE TRANSFORMERS \$1,223,290

- 2 The majorities of line transformer expenditures are completed under the Transformer and Switch
- 3 replacement account for an expenditure of \$640K and Voltage Conversion projects of \$510K. In addition
- 4 there are also new transformers occasionally required as part of a new rural service in Residential
- 5 Services.

6 ACCOUNT 1855 – SERVICES (OVERHEAD & UNDERGROUND) \$225,206

- 7 The General and Residential Service connections accounts make up all of the additions in the Services
- 8 account. Thunder Bay Hydro expects 200 new residential services and 30 new general services in 2017.

9 ACCOUNT 1860 – METERS \$317,598

- 10 Thunder Bay Hydro requires the installation of new meters as part of any new service request in the
- 11 General Services and Residential Services category.
- 12 In addition Thunder Bay Hydro replaces failed meters and seal expiries from all customer classes and will
- continue its meter sampling program through 2017. Thunder Bay Hydro expects to test approximately
- 14 1570 meters throughout the year.

15 ACCOUNT 1920 – COMPUTER EQUIPMENT – HARDWARE \$148,500

- 16 The variance in this account is due to the replacement of software and hardware components including
- but not limited to the following; PC's, laptops, network switches, servers, printers, network cabling and
- 18 wireless access points. Hardware components are maintained on a 3 to 6 year end of life equipment
- 19 schedule, based on the component.

26

20 ACCOUNT 1930 – TRANSPORTATION EQUIPMENT \$342,003

- 21 Thunder Bay Hydro expects renewal of the fleet for the following vehicles;
- Final expenditure for New Double Bucket to replace #3 Double Bucket vintage 2001
 (\$325K)
- Expenditure toward new Double Bucket to replace #5 Double Bucket vintage 2002
 (\$125K)
 - Crew Cab Vehicle to replace #45 vintage 20016 and #50 vintage 2007

27 ACCOUNT 1980 – SYSTEM SUPERVISORY EQUIPMENT \$174,430

- 28 The variance in this account is due to expenditures in SCADA communications equipment and new
- automated switches which will be installed as part of the System Service -Grid Modernization initiative.



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1 ACCOUNT 1995 – CONTRIBUTIONS AND GRANTS (\$1,326,298)

2 This variance is related to the contributions from commercial and residential customers forecasted service

- 3 connections in 2016. The number is not as large as the historical information as Thunder Bay Hydro has
- 4 not included an amount for contributions-in-kind nor are the assets contributed included in the additions
- 5 (net impact on the Rate Base is nil and as such, excluded).

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1 2.3 INCREMENTAL CAPITAL MODULE ADJUSTMENTS

- 2 Thunder Bay Hydro confirms that it has not applied for nor received any Incremental Capital Module
- 3 ("ICM") adjustments as part of a previous IRM application.

4

5



1 2.4 ALLOWANCE FOR WORKING CAPITAL

2	2.4.1 ALLOWANCE FACTOR OVERVIEW
3	In accordance with the Filing Requirements and in a letter dated June 3, 2015, the Board updated its
4	policy for the calculation of the allowance for working capital. As outlined in both documents, distributors
5	may take one of two approaches for the calculation of its allowance for working capital:
6	(1) use a default allowance approach or
7	(2) the filing of a lead/lag study.
8	The only exception for cost of service applicants is if the applicant has been previously directed by the
9	Board to undertake a lead/lag study on which its current working capital allowance is based. The June 3,
10	2015 letter further stated that the use of the default value should only be implemented during a cost of
11	service application.
12	
13	Thunder Bay Hydro has not been directed by the Board to undertake a lead\lag study, and accordingly,
14	has chosen to use the Board's default value for working capital.
15	
16	Thunder Bay Hydro confirms that it has split RPP and non RPP based on actual data and includes SME
17	charges. Thunder Bay Hydro used the RPP supply cost for the period from May 1 2016 to April 30, 2017
18	as published in the Regulated Price Plan Price Report, dated April 14, 2016 for the period from May 1,
19	2016 to April 30, 2017.
20	
21	Thunder Bay Hydro has used the default allowance of 7.5% for the 2017 Test Year in this Application, in
22	accordance with the Filing Requirements.
23	2.4.2 WORKING CAPITAL ALLOWANCE
24	Thunder Bay Hydro is proposing a working capital allowance of \$10,076,230 as shown in Table 2- 10
25	below:
26	
27	
28	
29	
30	
31	
32	
33	



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Line No **Distribution Expenses Distribution Expenses - Operation** 1 3,322,661 2 Distribution Expenses - Maintenance 4,703,516 3 Billing and Collecting 2,251,439 4 Community Relations 192,100 5 Administrative and General Expenses 5,230,177 **Donations - LEAP** 29,978 6 7 Taxes Other than Income Taxes 6,700 8 Less Allocated Depreciation (529, 843)9 **Total Eligible Distribution Expenses** 15,206,729 10 Power Supply Expenses 119,143,000 134,349,729 11 Total Working Capital Expenses 12 Working Capital Allowance @ 7.50% 10 076 230

1 TABLE 2-10: WORKING CAPITAL ALLOWANCE

2	12	10,070,230
3		
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10		
11		



1 2.5 TREATMENT OF STRANDED METER ASSETS

2	2.5.1 HISTORY
3	On July 5, 2012, Thunder Bay Hydro received its rate order from the Board in regards to its Smart Meter
4	Disposal and Cost Recovery application EB-2012-0015. Smart meters had been 100% installed for
5	Residential and General Service < 50 kW customers and costs incurred up to December 31, 2011 and
6	the incremental revenue requirement for Operational, Maintenance and Administrative ("OM&A") costs in
7	2012 were approved by the Board.
8	
9	Thunder Bay Hydro received approval to dispose of its estimated net book value of stranded assets as at
10	December 31, 2012 in its last Cost of Service Application (EB-2012-0167). In 2012, amounts were
11	transferred to the 'sub-account Stranded Meter Costs" of Account 1555.
12	
13	The Board approved recovery of stranded meter costs through applicable rate riders over a 12 month
14	period starting May 1, 2013.
15	
16	2.5.2 STRANDED METER TREATMENT
17	As discussed above, Thunder Bay Hydro was approved for recovery of its net book value of stranded
18	assets in its last Cost of Service Application. Accordingly, Thunder Bay Hydro is not required to complete
19	the Board's Smart Meter Model and the Board Appendix 2-S.
20	
21	Further details regarding variance Account 1555 related to the Board approved rate rider for Stranded
22	Meters can be found in Exhibit 9.



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1 2.6 CAPITAL EXPENDITURES

2

3 2.6.1 PLANNING OVERVIEW

- 4 In accordance with the Filing Requirements, Thunder Bay Hydro is filing its consolidated Distribution
- 5 System Plan ("DSP") as a stand-alone document in Attachment 2-B to this Exhibit. Thunder Bay Hydro
- 6 has organized the information contained in the DSP using the headings indicated in Chapter 5 of the
- 7 Board's Filing Requirements for Electricity Distribution and Transmission Applications, Consolidated
- 8 Distribution System Plan Filing Requirements, dated March 28, 2013. The DSP incorporates matters
- 9 pertaining to asset management, regional planning and renewable energy generation.
- 10 The four categories of system investments have been addressed in Thunder Bay Hydro's capital
- 11 expenditure plan, including system renewal, system access, system service and general plant. Thunder
- 12 Bay Hydro has provided historical spending by material capital project in the categories mentioned for the
- 13 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge and 2017 Test years.
- 14 Thunder Bay Hydro actively participates to coordinate planning with 3rd parties including The Corporation
- 15 of the City of Thunder Bay, Thunder Bay Telephone, Shaw Cable, Bell Aliant, Union Gas and Hydro One
- 16 Networks Inc.
- 17 Thunder Bay Hydro additionally participates as a stakeholder in the IESO led Integrated Regional
- 18 Resource Planning ("IRRP") process for the Thunder Bay Region.
- 19 For more information related to Thunder Bay Hydro's planning process, please see Section 5.1.4 and
- 20 Section 5.2.2 of the DSP contained in Attachment 2-B.
- 21 Based on the evaluation of the distribution system, Thunder Bay Hydro is not proposing any capital
- 22 investments for capacity upgrades to accommodate applications for the connection of renewable energy
- 23 generation for the 2017 Test Year.
- Annual capital expenditures represent new spending in the current year. A reconciliation of the actual
- capital expenditures to the amounts capitalized can be found in Section 2.6.3, Table 2-19.
- 26



1 2.6.2 ANALYSIS OF CAPITAL EXPENDITURES

- 2 Table 2-11 below provides a summary of capital expenditures for the historical years, 2013 through 2015
- 3 as well as the 2016 Bridge Year. This table can be found in Attachment 2-C and is consistent with Board
- 4 Appendix 2-AB.

5 TABLE 2-11: HISTORICAL CAPITAL EXPENDITURES SUMMARY

	Historical Period (previous plan ¹ & actual)														
CATEGORY	2012		2013		2014		2015			2016					
CATEGORT	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual ²	Var
	\$ '000		%	\$	'000	% \$ '000		%	\$ '000		%	\$ '000		%	
System Access	2,032	\$2,864	40.9%	1,963	\$2,154	9.7%	3,556	\$2,937	-17.4%	3,812	\$2,412	-36.7%	2,795	\$2,722	-2.6%
System Renewal	7,118	\$6,664	-6.4%	6,596	\$5,888	-10.7%	6,402	\$5,994	-6.4%	6,770	\$7,413	9.5%	7,090	\$7,165	1.1%
System Service	-	\$0		-	\$0	-	-	\$0	-	-	\$0		-	\$0	
General Plant	1,097	\$877	-20.0%	4,443	\$4,246	-4.4%	1,199	\$989	-17.5%	1,357	\$1,345	-0.9%	2,059	\$1,906	-7.4%
TOTAL															
EXPENDITURE	\$ 10,247	\$10,405	1.5%	\$ 13,003	\$12,287	-5.5%	\$ 11,157	\$9,920	-11.1%	\$ 11,938	\$11,171	-6.4%	\$ 11,944	\$11,793	-1.3%
System O&M	6,594	6,998	6.1%	\$ 7,064	\$6,803	-3.7%	\$ 6,959	\$7,316	5.1%	\$ 7,229	\$7,441	2.9%	\$ 7,675	\$8,034	4.7%

7 Planned vs. Actual Variances

6

8 The 2012 planned to actual variance for capital was a result of an increase in customer requests. A large

9 volume of the General Services requests were recovered through capital contributions. In addition the

10 implementation of Renewable Enabling Improvements significantly impacted the capital expenditures. As

11 a result of sub-contracting out the bill print process, Thunder Bay Hydro did not purchase a budgeted mail

machine in 2012. The 2012 planned to actual variance for operation and maintenance (O&M) was the

result of life to date Smart Metering Expenses presented in the 2012 actuals, as directed by the Board.

14 In 2013 Thunder Bay Hydro saw a consistent demand increase from customers General Services and an 15 increase in demand for customer driven expansion. Thunder Bay Hydro also experienced a decrease in 16 System Renewal variance which was due to variations in costs across several projects executed during 17 the year as well the deferral of certain capital investment projects to 2014 & 2015. The General Plant 18 variance decrease was due to a change in costs for the construction of the new fleet garage as well as 19 cost savings for office furniture, equipment and tools. 2013 Operations & Maintenance decrease in 20 variance were the result of a decrease in benefit costs as a result of the actuarial valuation update which 21 resulted in an actuarial gain which was amortized over 12 years. In addition salary, wage and overtime 22 were less than budget due to less storm related activity.

In 2014, Thunder Bay Hydro had budgeted based on previous trends in the demand for General Services in 2012 and 2013. However, the trend experienced in those years did not continue into 2014. In addition an Ontario Power Authority approved renewable wind project was cancelled. Additionally a system renewal project originally designed as an overhead project was revised to an underground design as a result of customer consultation. As a result the project was delayed due to the procurement of the required materials. The General Plant decrease in variance was due to the timing and receipt of large vehicles that were ordered during the year. O&M variances were the result of Fleet Department



- 1 expenses over budget for repairs and parts due to the age of fleet and equipment. Also contributing to
- 2 the O & M variance was the following: an increase of modified work; a higher level of activity relating to
- 3 high voltage adjustments on transformers and overhead services; an increase in the number of smart
- 4 meter failures.
- 5 The 2015 capital variance decrease was the result of the cancellation of a proposed City owned Event
- 6 Centre. The initial plans required the movement of a Thunder Bay Hydro owned substation. In addition
- 7 Thunder Bay Hydro was required to address a number of defective transformers and poles based on a
- 8 Risk Assessment for safety to the public. The additional costs also included the environmental
- 9 remediation following PCB transformer failures. O&M variances for 2015 and 2016 were the result of a
- 10 budget error in the allocation of engineering overhead between O&M and Capital.
- 11 The 2016 capital variance increases were the result of a number of general plant budgeted items which

12 were cancelled as a result of a cost analysis indicating that the projects were not financially viable at the

- 13 present time.
- 14 Table 2-12 provides information regarding the 2017 Test Year, as well as projections for the period 2018
- 15 through 2021. This tables is consistent with Board Appendix 2-AB which is also included as Attachment
- 16 2-C to this Exhibit.

17 TABLE 2-12: FORECASTED CAPITAL EXPENDITURES SUMMARY

Line No.	CATEGORY	Forecast Period (planned)						
1		2017	2018	2019	2020	2021		
2		2017	2010	2019	2020	2021		
3		\$ '000						
4	System Access	\$2,662	\$2,422	\$2,432	\$2,445	\$2,505		
5	System Renewal	\$8,380	\$8,818	\$8,976	\$9,217	\$9,261		
6	System Service	\$230	\$300	\$280	\$280	\$300		
7	General Plant	\$1,168	\$1,360	\$946	\$901	\$969		
8	TOTAL EXPENDITURE	\$12,440	\$12,900	\$12,634	\$12,842	\$13,035		
9	System O&M	8,026	8,187	8,350	8,592	8,842		

18

19 The annual capital expenditures include all new spending in the fiscal period.

20 2.6.3 VARIANCE ANALYSIS BY SPENDING CATEGORY

- 21 The following variance analysis has been prepared based on Thunder Bay Hydro's materiality threshold
- of \$119,000, per the materiality calculation being noted in Exhibit 1, Section 1.7 of this Application.
- 23



1 2012 Actual versus 2013 Actual Capital Expenditure Variances

- 2 Thunder Bay Hydro experienced an overall increase in capital expenditures of \$1,882,300 from 2012
- 3 Actual results to 2013 Actual Results summarized in Table 2-13 below.

4 TABLE 2-13: 2012 ACTUAL VERSUS 2013 ACTUAL CAPITAL EXPENDITURE VARIANCES

Catagony	2012	2013	Variance		
Category	Actual	Actual	2012 to 2013		
System Access	\$2,863,932	\$2,153,654	(\$710,278)		
System Renewal	\$6,664,243	\$5,887,628	(\$776,615)		
System Service	\$0	\$0	\$-		
General Plant	\$876,685	\$4,245,878	\$3,369,193		
Total Expenditure	\$10,404,860	\$12,287,160	\$1,882,300		

5

6 System Access

- 7 The most significant cost drivers behind the variance decrease of \$710,278 System Access category can
- 8 be represented by a significant decrease in a project related to the cancellation of budgeted expenditures
- 9 in Renewable Enabling Improvements, related to the connection of two large solar projects on Thunder
- 10 Bay Hydro's distribution system in 2013. Another main driver is a reduction in System Relocation projects
- by the City of Thunder Bay, and a reduction in requests for connections of General Services in 2013. The
- 12 majority of capital expenditures contained with the System Access category, with the exception of meters
- 13 are recovered through capital contributions.
- 14 In addition, Thunder Bay Hydro adopted IFRS accounting standards in 2013 which led to a decrease in
- 15 the extent of overheads allocable to Capital work. This decrease similarly decreased the cost of
- 16 comparable projects completed in 2012.

17 System Renewal

- 18 In 2013, Thunder Bay Hydro experienced a variance decrease of \$776,615 in System Renewal capital
- 19 expenditures which can be largely attributed to decrease in planned Underground Renewal, and a
- 20 decrease in the cost of Voltage Conversion projects. The cost of Voltage Conversion projects was driven
- by the accounting changes required in preparation of the adoption of IFRS accounting standards; mainly
- being the decrease in the extent of overheads allocable to Capital work. Thus a comparable amount of
- 23 work was completed for a lesser expenditure.

24 System Service

25 In 2013, Thunder Bay Hydro experienced no change in System Service capital expenditures.



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1 General Plant

- 2 In 2013, Thunder Bay Hydro experienced an increase in General Plant capital expenditures of
- 3 \$3,369,193. This variance is solely related to the one- time cost of the construction of a new fleet garage.

4 2013 Actual versus 2014 Actual Capital Expenditure Variances

- 5 Thunder Bay Hydro experienced a decrease in capital expenditures of \$2,367,213 from 2013 Actual
- 6 results to 2014 Actual results as summarized in Table 2-13 below.

7 TABLE 2-13: 2013 ACTUAL VERSUS 2014 ACTUAL CAPITAL EXPENDITURE VARIANCES

Catagory	2013	2014	Variance
Category	Actual	Actual	2013 to 2014
System Access	\$2,153,654	\$2,936,881	\$783,227
System Renewal	\$5,887,628	\$5,994,452	\$106,824
System Service	\$0	\$0	\$-
General Plant	\$4,245,878	\$988,614	(\$3,257,264)
Total Expenditure	\$12,287,160	\$9,919,947	(\$2,367,213)

8

9 System Access

10 The System Access category is primarily influenced by Customer Preferences, and can be difficult to 11 forecast and budget. Thunder Bay Hydro uses historical figures and information from consultation with 12 third parties to determine budgets, but in many cases connections are requested and executed within the 13 same year, resulting in large fluctuations year over year. In 2014, Thunder Bay Hydro experienced a variance in System Access capital expenditures of \$783,227. The main driver of this variance was the 14 15 increase in Relocation projects requested by the City of Thunder Bay. There were three road widening 16 projects which required Thunder Bay Hydro to relocate 59 poles along Golf Link Stage 1, Stage 2, and 17 Valley Street. There was also a variance in Expansions for Residential Subdivisions. The developments 18 that were in progress in 2014 were Parkdale, Tuscany, Hutton Park and River Terrace, which comprised 19 of a total of 217 lots. Another driver of the variance is related to the fluctuation in General Service 20 connections requested by customers. 2014 saw a substantial decrease in requests for general service 21 customers, and capital recoverable work.

- 23 In 2014, Thunder Bay Hydro experienced an increase in System Renewal capital expenditures of
- 24 \$106,824, based on Thunder Bay Hydro's materiality threshold, this amount is deemed immaterial.
- 25



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1 System Service

2 In 2014, Thunder Bay Hydro experienced no change in System Service capital expenditures.

3 General Plant

- 4 In 2014, Thunder Bay Hydro experienced a decrease in General Plant capital expenditures of
- 5 \$3,257,264, due to the completion of the construction of new fleet garage in the year 2013.

6 2014 Actual versus 2015 Actual Capital Expenditure Variances

- 7 Thunder Bay Hydro experienced an increase in capital expenditures of \$1,250,768 from 2014 Actual
- 8 results to 2015 Actual results, as summarized in Table 2-15 below.

9 TABLE 2-15- 2014 ACTUAL VERSUS 2015 ACTUAL CAPITAL EXPENDITURE VARIANCES

Catagony	2014	2015	Variance
Category	Actual	Actual	2014 to 2015
System Access	\$2,936,881	\$2,412,277	(\$524,604)
System Renewal	\$5,994,452	\$7,413,468	\$1,419,016
System Service	\$0	\$0	\$-
General Plant	\$988,614	\$1,344,970	\$356,356
Total Expenditure	\$9,919,947	\$11,170,715	\$1,250,768

10

11 System Access

- 12 The main contributors to the cost variance decrease of \$524,604 in capital expenditures in System
- 13 Access between 2014 and 2015 can be linked to a decrease in 2015 System Relocations work required
- 14 by the City of Thunder Bay as compared to 2014 due to budgetary constraints and fluctuating priorities. In
- addition there was a decrease in expansions requested for new residential subdivision as a result of
- 16 fewer developments within the year.

- 18 In 2015 Thunder Bay Hydro experienced an increase in System Renewal capital expenditures of
- 19 \$1,419,016. The main cost driver of the increase was due to the poles identified for replacement as part
- 20 of small pole replacements project. This work is driven by internal and external requests and inspections
- 21 that posed immediate risks to public and / or worker safety. There was also an increase \$397,328 related
- to defective and failed transformers that required environmental remediation. Another cost driver was the
- 23 increased investment of \$499,353 to underground infrastructure for the 10M8 overhead project which was
- 24 changed to a partial underground project in order to better meet the expectations of customers impacted
- 25 by the project, as well as the Industrial park project which renewed infrastructure to several industrial



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- 1 customers. An increase in design work of \$116,322 was completed to ensure that design prints were
- 2 available 3 years in advance for planning purposes.

3 System Service

4 In 2015, Thunder Bay Hydro experienced no change in System Service capital expenditures.

5 General Plant

- 6 In 2015, Thunder Bay Hydro experienced an increase in variance for General Plant capital expenditures
- 7 of \$356,356. This increase is due to replacement of equipment required for lines work for a
- 8 Puller/Tensioner and new survey equipment purchased for the Engineering department.

9 2015 Actual versus 2016 Bridge Year Capital Expenditure Variances

- 10 Thunder Bay Hydro expects an increase in capital expenditures of \$621,870 from 2015 Actual results to
- 11 2016 Bridge Year as summarized in Table 2-16 below.

12 TABLE 2-16: 2015 ACTUAL VERSUS 2016 BRIDGE YEAR CAPITAL EXPENDITURE VARIANCES

Cotogowy	2015	2016	Variance		
Category	Actual	Projection	2015 to 2016		
System Access	\$2,412,277	\$2,722,077	\$309,800		
System Renewal	\$7,413,468	\$7,164,703	(\$248 <i>,</i> 765)		
System Service	\$0	\$0	\$-		
General Plant	\$1,344,970	\$1,905,805	\$560,835		
Total Expenditure	\$11,170,715	\$11,792,585	\$621,870		

13

14 System Access

- 15 The planned expenditures in the 2016 System Access category are expected to increase from 2015 by
- 16 \$309,800. This variance is generally due to an increase in the customer driven requests for connections
- 17 in the General Service projects, as well as increases in the cost for installation of Residential Services
- 18 Connections. The Meter Installation project increased in 2016 due to the purchase of 750 new residential
- 19 meters for preparation of the Meter Sampling program, as detailed in the DSP (see Appendix F in
- 20 Attachment 2-B).

- 22 The variance decrease of \$248,765 within the System Renewal category is in large part due to a
- 23 decrease in small pole replacements. This account returned to historical levels following 2015, when a
- 24 larger than expected number of poles were identified for replacement through the inspection and risk
- 25 assessment process. In 2016 Thunder Bay Hydro's Engineering and Lines departments worked together



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- 1 to create a more objective inspection regime to ensure these areas were addressed in planned
- 2 replacement projects. A decrease was also seen in the underground account to offset the increase in the
- 3 4kV conversions.

4 System Service

5 In 2016, Thunder Bay Hydro experienced no change in System Service capital expenditures.

6 General Plant

- 7 The main cost driver for the variance in General Plant capital expenditures of \$560,835, is due to the
- 8 \$416,699 replacement of the SCADA system which has come to end of life. In addition there are required
- 9 leasehold improvements at the Cumberland Street Office Building, and additions to the corporate installed
- 10 computer equipment.

11 2016 Bridge Year versus 2017 Test Year Capital Expenditure Variances

- 12 Thunder Bay Hydro expects an increase in capital expenditures of \$647,478 from 2016 Bridge year to the
- 13 2017 Test Year, as summarized in Table 2-17 below.

14 TABLE 2-17: 2016 BRIDGE YEAR VERSUS 2017 TEST YEAR CAPITAL EXPENDITURE VARIANCES

Category	2016	2017	Variance
	Projection	Plan	2016 to 2017
System Access	\$2,722,077	\$2,662,432	(\$59,645)
System Renewal	\$7,164,703	\$8,379,756	\$1,215,053
System Service	\$0	\$230,375	\$230,375
General Plant	\$1,905,805	\$1,167,500	(\$738,305)
Total Expenditure	\$11,792,585	\$12,440,063	\$647,478

15

16 System Access

- 17 For the 2017 Forecast period, Thunder Bay Hydro expects expenditures in System Access to decrease
- 18 by \$59,645, based on Thunder Bay Hydro's materiality threshold, this amount is deemed immaterial.

- 20 Thunder Bay Hydro expects a cost increase in System Renewal capital expenditures from 2016 to 2017
- of \$1,215,053. The increase in expenditures is a direct result of the Asset Condition Assessment which
- 22 was performed in 2016 by Kinectrics and provided a Health Index ("HI") of the entire asset base. The
- Health Index distribution provided Thunder Bay Hydro a comprehensive view into the condition of assets,
- and resulted in a suggested level of annual asset renewal in the form of a "Flagged for Action Plan".



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The development of the Asset Condition Assessment ("ACA") (see the DSP found in Appendix 2-B of this Exhibit, under Section Appendix 5.2.1.1) provided Thunder Bay Hydro staff the opportunity to work with an external firm with considerable experience in the field of asset management. This experience has informed Thunder Bay Hydro's staff on the methodologies of assessing condition of equipment,

- 5 evaluating the associated risk of failure and developing replacement /refurbishment plans. The results
- 6 have also provided Thunder Bay Hydro better knowledge of the condition of assets within the distribution
- 7 territory and better informed the Asset Management Process.
- 8

1 2

3

4

9 This approach of condition based rather than age based asset management has been incorporated into 10 the DSP and resulted in a shift in infrastructure investment. With previous Asset Management Plans, the 11 focus of Thunder Bay Hydro's investment was the decommissioning of 4kV substations and the renewal 12 of associated distribution assets. The analysis by Kinectrics resulted in an extension of power transformer 13 typical useful life based on winter peaking, low loading levels, and technical analysis of oil results. As a 14 result, Thunder Bay Hydro has determined that a shift away from a Voltage Conversion towards a better-15 rounded System Renewal plan is necessary. Thunder Bay Hydro defines a better-rounded system 16 renewal plan, as one which accounts for renewal of assets on 4kV as well as 12kV and 25kV voltage 17 levels, as well as a mix of overhead and underground projects. In order to meet the asset renewal 18 quantities suggested by Kinectrics an increase from historical levels of investment will occur in 19 underground infrastructure and 25kV pole replacements.

- 20
- 21 The shift in expenditures from historical levels of replacement will begin in 2017 and Thunder Bay Hydro
- 22 anticipates becoming aligned with the "Flagged for Action" plan suggested from Kinectrics by 2019.
- 23 Thunder Bay Hydro has purposely taken a conservative approach and paced the shift in expenditures
- 24 over a 3 year period to minimize cost impact to the customer and to complete work in progress;
- 25 specifically on 4kV conversion projects, where there are only one or two project areas prior to
- 26 decommissioning of a station. In addition, this change is a fundamental shift in philosophies and requires
- changes in construction practices, scheduling and labor allocations. Allowing 3 years to become aligned
- will allow Thunder Bay Hydro the chance to implement these changes in the most cost effective manner.

29 System Service

- 30 For the 2017 Forecast period, Thunder Bay Hydro expects expenditures in System Service to increase by
- \$230,375. This increase is to implement automation improvements on selected feeders as an initiative of
- 32 the 'Grid Modernization Plan' attached as Appendix 2-B, Appendix D.
- 33
- 34



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1 General Plant

- 2 For the 2017 Forecast period, Thunder Bay Hydro expects expenditures in General Plant to reduce by
- 3 \$647,478. This decrease in spending is primarily due to the SCADA system expenditure being completed
- 4 in 2016.

5 2018-2021 Forecast Capital Expenditure Variance Analysis

- 6 Overall trending for the forecast period of 2018 to 2021 between categories is consistent in the System
- 7 Access, System Renewal and System Service categories. Inflationary increases are expected to account
- 8 for minor year over year increases of approximately 2%, as their variance falls below the materiality
- 9 threshold. A decrease in expenditures in the General Plant category accounts for an overall decrease in
- 10 expenditures over the forecast period.

11 TABLE 2-18: FUTURE CAPITAL EXPENDITURE AVERAGE VARIANCES

Catagoni	Forecast Period										
Category	2018	2019	2020	2021							
System Access	\$2,422,273	\$2,432,053	\$2,444,765	\$2,505,497							
System Renewal	\$8,818,369	\$8,975,721	\$9,216,828	\$9,261,478							
System Service	\$300,000	\$280,000	\$280,000	\$300,000							
General Plant	\$1,359,760	\$946,131	\$900,514	\$969,308							
Total Expenditure	\$12,900,402	\$12,633,905	\$12,842,107	\$13,036,284							

12

13 System Access

- 14 Year over year average variance and trending for the forecast period of 2018 to 2021 are very consistent
- 15 with historical values with an inflationary increase of 2%.

- 17 Over the 2018 to 2021 forecast period, Thunder Bay Hydro expects to see only minimal increases of
- 18 approximately 1.2% in the System Renewal category to reach sustainment levels of asset renewal.
- 19 Thunder Bay Hydro recognizes the importance of renewing all asset categories and anticipates alignment
- 20 with suggested levels in the Kinectrics report (Appendix 2-B Section, Appendix C) by 2019.
- 21
- 22 Thunder Bay Hydro has been investing in System Renewal since 2008 and has continued to increase the
- replacement of wood poles, distribution transformers and overhead switches through to 2017.
- 24 Expenditures in these accounts have not increased at the same rate as quantities have increased and
- this is in large part due to the cost-efficiencies employed by the utility. In order to implement a balanced



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- 1 renewal plan, Thunder Bay Hydro will continue to shift expenditures away from 4kV Conversions and
- 2 increase expenditures in Underground and 25kV renewal projects.

3 System Service

- 4 Over the 2018 to 2021 Forecast period, Thunder Bay Hydro expects expenditures in System Service to
- 5 remain steady. Budgetary Forecasts for reliability improvements are an initiative of the 'Grid
- 6 Modernization Plan' attached as Appendix 2-B, Appendix D. These expenditures are in alignment with
- 7 Ontario's Long Term Energy Plan by implementing devices that allow Thunder Bay Hydro to provide cost-
- 8 effective, customer driven solutions to reliability issues.

9 General Plant

- 10 Over the 2018 to 2021 Forecast period, Thunder Bay Hydro expects expenditures in General Plant to
- 11 gradually decrease. These decreases are due to decreased spending on Fleet and Rolling Stock.
- 12 As was noted above, the capital expenditures represent new spending in the year and the reconciliation
- 13 to the amounts capitalized can be found in the following table:

14 TABLE 2-19: RECONCILIATION OF DSP ADDITIONS TO TOTAL FIXED ASSET ADDITIONS

Line No.	Reconciliation of DSP Additions to Total Fixed Asset Ad	ditions					
1		Actual 2012	Actual 2013	Actual 2014	Actual 2015	2016 Bridge Year	2017 Test Year
2	Total Additions per DSP	10,404,860	12,287,160	9,919,947	11,170,715	11,792,585	12,440,065
3	Contributions in Kind	321,282	379,701	493,928	399,842	0	0
	Net Transformer and Meter Inventory movement and						
4	miscellaneous fixed asset adjustments	(211,613)	(645,467)	282,194	300,479		
5	Net DSP Additions	10,514,529	12,021,394	10,696,069	11,871,036	11,792,585	12,440,065
6							
7	Additions per Fixed Asset Continuity		10,228,885	8,559,027	9,886,365	13,298,931	12,592,304
8	Less Work in Progress Disposals					(2,741,379)	(1,478,540)
9	Gross up for Contributions		1,792,509	2,137,042	1,984,671	1,235,032	1,326,298
10	Net Fixed Asset Additions		12,021,394	10,696,068	11,871,036	11,792,584	12,440,062

16 **2.6.4 CAPITAL PROJECTS**

- 17 The table below provides a summary of all capital projects for the years 2013 through to the 2016 Bridge
- 18 Year and the 2017 Test Year, which is consistent with Board Appendix 2-AA and is included in
- 19 Attachment 2-D of this Exhibit. All projects above Thunder Bay Hydro's materiality threshold of \$119,000
- 20 have been listed individually within the DSP categories. Thunder Bay Hydro's DSP provides capital
- 21 projects summaries with a full description and justification of all individual material projects listed in the
- 22 Table below for the 2017 Test year. These summaries are found in Thunder Bay Hydro's DSP included in
- 23 Attachment 2-B.
- 24

15

25



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1 TABLE 2-20: CAPITAL PROJECTS TABLE

Projects	2012	2013	2014	2015	2016 Bridge Year	2017 Test Year
Reporting Basis						
	Actuals	Actuals	Actuals	Actuals	Budget	Forecast
SYSTEM ACCESS						
PCB Transformer Replacements (A 01)	143,287	120,061	217,974	100,942	162,598	118,655
02)	-	221,636	509,842	859,513	235,458	281,092
Customer Driven System Expansions (A 11)	91,818	197,649	88,248	181,267	175,506	209,034
Residential Service Connections (A 12)	459,350	296,842	302,465	282,378	449,520	445,213
General Service Connections (A 13)	627,181	578,080	580,813	461,209	907,343	926,898
New courthouse - Miles @ Brodie (WF0376329)	323,741	391,726				
Expansions for Residential Subdivisions (A 14)	92,848	48,986	335,496	118,498	232,955	230,530
System Relocations (A 15)	447,447	88,708	428,303	176,094	162,858	164,881
Golf Links Road Widening Stage 2 (WF0482298)			285,169	57.845		
Balmoral Ave						
Sentinel Lights (A 19)	8,924	3,225	(173)		(888)	
Meter Installations (A 21)	8,510	189,544	175,260	192,854	396,177	286,129
Generator Driven Expansions (A 32)	666,826	22,253				
Renewable Enabling Improvements (A 33)			11,947	(12,141)		
Event Center (A 34)			6,536	(6,563)		
Miscellaneous	196,098	158,117	101,558	140,464	(338)	-
Sub-Total System Access	\$ 2,863,931	\$ 2,153,655	\$ 2,936,881	\$ 2,412,277	\$ 2,722,077	\$ 2,662,432



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SYSTEM SERVICE						
Grid Modernization (A 35)	-	-	-	-	-	230,375
Miscellaneous	-	-	-	-	-	-
Sub-Total System Service	\$ -	\$-	\$-	\$-	\$-	\$ 230,375
SYSTEM RENEWAL						
Line Voltage Conversions (B 12)						
Centre-Francis	27,403					
Montreal-Mountdale	91,766					
Brock-Ford Rebuild	1,476,051					
Georgina-Francis Conversion	940,824					
Brown-Isabella Rebuild	1,637,599					
Churchill-Edward 25kV Area Rebuild	-	223,674	247,555			
Ogden-McMurray Area Rebuild	1,075,188	1,624,654		-		
McKenzie-Dease Area Design		6,613	171,815	204,139		
Brunswick-Legion Area Design	20,292	34,787	19,481	-		
Clayte-Burriss Design	69,956	69,888	1,979,501	6,727		
Huron-Otto Rebuild	49,139	196,143	1,327,820	6,443		
Dawson-Rockwood Area Rebuild	2,932	32,736		1,239,672		
Redmond-Egan Area Rebuild	6,813	56,452		-		
Balsam-Minot Area Rebuild	70,230	3,465	619,344	1,225,645		
Elm-Campbell Area Rebuild	4,976	52,539				
Eliott-Leslie Area Rebuild	32,210	664,836				
Durban-Brodie Area Conversion	8,541	593,882	(143)	-		
Mary-Heath Area Conversion/Rebuild	67,482	1,032,388		-		
Black Bay-Dewe Rebuild			3,648	12,700	664,656	1,174,110
Dewe-Rita Rebuild		2,489	28,025	10,211	700,195	1,489,302
Donald-Mountdale				4,882		310,256
Dacre-Leslie	1,362	27,151	24,414	586,778	1,439,532	
Bruswick-Legion				411,866		
Isabella-James				362,893	990,067	
Pole Butt and 4kV Removal	40,903	64,346	424	(449)	101,766	30,000
McPherson-Christie				22,510		
Court-VanHorne				44,184		
MacDougall-Court				61,096		789,716
Victoria /James				17,908	1,196,761	
FW TS Exit Cable Replacement				1,456		376,868
Finlayson - Brodie Conversion				15,496		893,725
Cumming - Brodie Street				32,750		580,677
25kV Pole Replacements						584,384
Engineering Design for Future Projects					142,443	189,888
Forestry for future Projects						100,000
Stations Improvements						
System Improvements (B 13)						
10M8 Reconfiguration		2,800	57.643	372,317		
U/G Installations/Replacements (B 14)	213,160					
Industrial Park - U/G Express Reinforcement			1.	280,312		
Main St Connection 10M3 to 17M1	4,823	1.165	116,412	12,829		
Small Pole Replacements (A 16)	160,400			130,406	379,573	342,512
Northwood - 10M9 Pole Line (WF0469253)		236,494	1,734			

1



2M5 Pole Line Rebuild (WF0484290)			159,795	126,926		
Main St and Hammond (WF0508762)			116,798	198,919		
Lane South of Arthur between Edward and Ford Rebuild			,	100 704		
(WF0517942)				138,764		
Edward between Aurthur and Mary Rebuild (WF052223)				171,493		
Edward and Churchill Rebuild (WF0525234)				261,792		
Lines Safety Reports (A 17)	468,445	625,723	567,743	495,879	732,775	761,834
(A 18)	123,691	345,416	215,210	932,264	816,936	756,484
Hector Dougall Way (WF 0474031)			119,529	25,859		
(WF0484290)			209,732			
Operations Safety Reports (A 22)	70,057	37				
Miscellaneous	568,886	344,417	143,199	273,402	101,765	130,000
Sub-Total System Renewal	\$ 6,664,243	\$ 5,887,628	\$ 5,994,452	\$ 7,413,468	\$ 7,164,703	\$ 8,379,756
GENERAL PLANT						
2012 Terex Digger Derrick		220,340				
2013 Material Handler		291,262				
2014 Freight liner Double Bucket			364,664			
2015 Feight Liner Double Bucket				282,464		
2016 Digger Derrick					255,160	
2016 Double Bucket					125,000	
2016 Single Bucket					190,016	
2017 Mini Bucket					135,522	
2017 Double Bucket						325,000
2017 Double Bucket (purchase began in 2016)						125,000
Fleet Garage		3,277,070			-	
Building Improvements					131,000	
IT (Software and Hardware)	231,506		136,189	194,052	183,686	206,500
Power Operated Equipment				196,682		
Communications			160,587	158,841		101,500
Fleet - Rolling Stock	437,900	249,002	257,949	202,974	286,430	160,000
SCADA					416,699	
Miscellaneous	207,279	208,204	69,225	309,957	182,292	351,000
Sub-Total General Plant	\$ 876,685	\$ 4,245,878	\$ 988,614	\$ 1,344,970	\$ 1,905,805	\$ 1,167,500
Total	10,404,860	12,287,160	9,919,947	11,170,715	11,792,585	12,440,06
Less Renewable Generation Facility Assets and						
Other Non-Rate-Regulated Utility Assets (input as						
negative)						
Total	10,404,860	12,287,160	9,919,947	11,170,715	11,792,585	12,440,06

2 2.6.5 Non-DISTRIBUTION ACTIVITIES

3 Thunder Bay has excluded non-distribution activities in its capital expenditures, as such, no reconciliation

4 is required.

1

5 2.6.6 TRANSMITTER CAPITAL CONTRIBUTIONS

6 Thunder Bay has not made any transmitter capital contributions.

7 2.6.7 CONSERVATION INITIATIVES

- 8 Thunder Bay has not experienced any material growth in its customer base or service territory, thus, has
- 9 not had the need to consider incremental conservation initiatives to defer or otherwise avoid future
- 10 infrastructure projects. This will remain true over the life of this Application.
- 11 Thunder Bay Hydro is not applying for funding through distribution rates to pursue activities such as
- 12 energy efficiency programs, demand response programs energy storage programs, etc.



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1 2.6.8 SMART METER DEPLOYMENT

- 2 Thunder Bay Hydro has made use of new data not available in the legacy meters. For example, the
- 3 voltage readings from the smart metering system are reported back into the Geographic Information
- 4 System ("GIS") system. This information is used for maintenance planning to identify poor voltage areas.
- 5 The locations shown to be receiving a voltage outside of Thunder Bay Hydro's standard can be
- 6 proactively fixed before any damage is done to customer or utility equipment. The voltage reads are also
- 7 used by the system planning department to help plan capital projects. The interval data can be
- 8 aggregated to show what the load would be if specific customers were fed from the same transformer.
- 9 This data assists engineers in planning transformer sizing.
- 10 Thunder Bay Hydro has also procured a population of remote disconnect meters during the smart meter
- 11 project. These meters are being used to eliminate a field visit during the disconnect/reconnect process.
- 12 The power to a meter can be turned on remotely from the system control office.
- 13 Another efficiency achieved, is the ability of the smart meter system to allow system control operators to
- 14 check a customer's power and voltage readings on demand. This has resolved some customer inquiries
- 15 immediately instead of requiring a field visit to verify power conditions. The smart metering system can
- 16 also perform on demand reads. This has been used in both the billing department and in customer
- 17 service to aid vacancy requests and billing inquiries while eliminating the need to send a truck.

18 2.6.9 CAPITALIZATION POLICY

Thunder Bay Hydro's current capitalization policies and principles are based on International Financial Reporting Standards ("IFRS") and guidelines set out by the Board, where applicable. Thunder Bay Hydro converted to Modified International Financial Reporting Standards ("MIFRS') for financial reporting purposes on December 31, 2015 and, as such, the capitalization policy in effect for 2014 (given that the comparative figures required restatement), 2015, the 2016 Bridge Year and the 2017 Test Year is compliant with MIFRS.

25

26 Per the Board's letter dated July 17, 2012, electricity distributors that elected to remain on Canadian

27 generally accepted accounting principles ("CGAAP") in 2012 must have implemented regulatory

- accounting changes for capitalization and depreciation policies by January 1, 2013. Thunder Bay Hydro
- 29 engaged Grant Thornton LLP to assist with determining the level of Property, Plant & Equipment
- 30 ("PP&E") componentization required under IFRS and identifying whether any changes to overhead
- 31 capitalization were required. As a result of this analysis, and in accordance with the Board's July 17,
- 32 2012 letter, Thunder Bay Hydro revised its capitalization policy effective January 1, 2013 to align with
- 33 guidance under IFRS. Thunder Bay Hydro confirms that the changes to its capitalization policy are
- 34 consistent with the Board's regulatory accounting policies as set out for MIFRS as contained in the



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- 1 Report of the Board, Transition to International Financial Reporting Standards (EB-2008-0408) (the
- 2 Board Report and the Board's Accounting Procedures Handbook ("APH").
- 3
- 4 Thunder Bay Hydro has applied its capitalization policies based on the following accounting principles:
- 5 2013 2014 Canadian Generally Accepted Accounting Principles ("GAAP")
- 6 2015 2017 International Financial Reporting Standards ("IFRS")
- 7 Effective January 1, 2013, Thunder Bay Hydro modified its capitalization and depreciation policies to align
- 8 with IFRS (referred to as "MGAAP"). These modifications were used in its last rebasing application for
- 9 2013. Effective January 1, 2015, Thunder Bay Hydro adopted IFRS. The Board guidelines are also
- 10 followed where applicable and as a result IFRS is modified in order to comply with these guidelines and
- 11 therefore referred to as "MIFRS". The only impact in relation to capital assets with the adoption of IFRS
- 12 was the required recognition of the constructive obligation in relation to the substation assets (See Asset
- 13 Retirement Obligation below). All other capitalization and depreciation polices have remained consistent
- 14 since the last rebasing in 2013.
- 15 IFRS prescribes which costs can be included as part of the cost of an asset and indicates that only costs
- 16 that are directly attributable to bringing an asset to the location and to a condition necessary for it to
- 17 operate in a manner intended by management can be capitalized. Indirect overhead costs, such as
- 18 general and administrative costs that are not directly attributable to an asset, cannot be capitalized under
- 19 IFRS.
- 20

21 Thunder Bay Hydro performed an analysis of all costs that were being capitalized under CGAAP in order

- to determine whether these costs were eligible for capitalization under IFRS. This analysis is summarizedbelow.
- 24

25 Labour Cost

26

Capitalized labour includes engineering design time and operations construction time, which are recorded
on timesheets to capital work orders. The timesheets capture the nature of the activities undertaken and
time spent on each task by employee.

30

- 31 As a result, it was determined that any time charged to a capital work order was directly attributable to
- a particular item of PP&E. Under both CGAAP and IFRS, these costs are capitalized since they are



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- 1 directly attributable costs of bringing an asset to the location and to a condition necessary for it to
- 2 operate in a manner intended by management.
- 3

4 Material Cost

5

These costs include stocked items taken from Thunder Bay Hydro's warehouse and issued out to each
capital project, as well as direct materials which are purchased and delivered to the job site. These costs
represent the purchased price and initial delivery costs of the materials.

9

10 Under both CGAAP and IFRS, these costs are capitalized since they are directly attributable costs of 11 bringing an asset to the location and to a condition necessary for it to operate in a manner intended by 12 management. Therefore, there was no impact on the amount of material costs being capitalized under 13 IFRS.

14

15 Third Party Cost

16 Sub-contractor costs are incurred when Thunder Bay Hydro engages a third party for the construction of

17 Thunder Bay Hydro's assets. Under both CGAAP and IFRS, these costs are capitalized since they are

directly attributable costs of bringing an asset to the location and to a condition necessary for it to operate

19 in a manner intended by management. Therefore, there was no impact on the amount of third party costs

20 being capitalized under IFRS.

21 Capitalization Guidelines

22 The purpose of capitalizing expenditures is to provide an equitable allocation of costs among current

23 and future customers. As capital assets are expected to provide future economic benefits for more

24 than one year, any expenditure incurred for the acquisition, construction, development or betterment

of the capital assets should be capitalized. These capitalized costs are allocated over the estimated

- 26 useful life of the assets by amortization.
- 27

28 Capital assets include tangible assets which include property, plant and equipment provided they are

29 held for use in the production or supply of goods and services. A capital expenditure must provide a

30 benefit lasting beyond one year. Intangible assets are also considered capital assets and are

31 identified as assets that lack physical substance.

- 32
- 33



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1 Repair

- 2 A repair is a cost incurred to maintain the service potential of a capital asset. Expenditures for repairs are
- 3 expensed to the current operating period. Expenditures for repairs and/or maintenance designed to
- 4 maintain an asset in its original state are not capital expenditures and should be charged to an
- 5 operating/maintenance account.

6 **Capitalization by Components**

- 7 When parts or components of an item of PP&E have different useful lives, they are accounted for as
- 8 individual items (major components). Component costs must be significant in relation to the total cost of
- 9 the item and depreciated separately over the specific component's useful life.
- 10

14

16

- 11 Components with similar useful lives and depreciation methods are grouped in determining the
- 12 depreciation charge. Parts of the item that are not individually significant (i.e., the remainder of the item)
- 13 are combined and categorized as a single component best suited for the sum of the parts.
- 15 Capitalization Threshold
- Theoretically, any expenditure that meets the asset cost and asset recognition criteria would be recorded as a capital asset. However, for practical reasons, a qualifying cost would be capitalized only if the item cost is greater than \$1,500.
- 20 21 Spare Transformers
- 22
- Spare transformers are accounted for as capital assets since they form an integral part of the reliability
 program for a distribution system. They are not intended for resale and cannot be classified as inventory
 in accordance with IAS 2, *Inventories*. Transformers are not depreciated until they are put into service.
- 26

27 Amortization

- 28 IAS 16 requires each part of an item of PP&E with a cost that is significant in relation to the total cost of
- 29 the item to be depreciated separately. In addition IAS 16 requires entities perform a review of assets'
- 30 useful lives, depreciation methods and residual values on an annual basis. The Board commissioned a
- depreciation study to assist electricity distributors in their transition to IFRS. Thunder Bay Hydro reviewed
- 32 the useful life of its assets with the aid of the Asset Depreciation Study by Kinectrics (Kinectrics Report).
- 33 This can be seen in Board Appendices 2-BB of Appendix 2-J of this Exhibit
- 34
- 35



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1 Capital Contribution Policy

2 Thunder Bay Hydro receives capital contributions in compliance with the provisions in the Distribution 3 System Code and Thunder Bay Hydro's Conditions of Service. Under CGAAP, capital contributions were 4 treated as an offset to the gross capital cost of the appropriate category of asset. Capital contributions, 5 net of accumulated amortization of capital contributions was presented with property, plant and equipment. 6 Amortization expense on capital contributions was an offset to depreciation expense of the capital assets. 7 8 Under IFRS, capital contributions are recorded as deferred revenue and amortized into income over the 9 useful life of the asset to which it relates. The Board Report states: 10 "IFRS requires customer contributions to be recorded as revenue or as deferred revenue 11 12 (depending on the circumstances) instead of as an offset to capital cost. For regulatory reporting and rate-making purposes, the amount of customer contributions will be treated 13 14 as deferred revenue to be included as an offset to rate base and amortized over the life of the facility to which it relates. This reclassification is necessary to preserve continuity 15 of the rate base." 16 17 18 Consistent with the Board Report, Thunder Bay Hydro has continued to include forecast 2016 and 2017 19 capital contributions as an offset to rate base in Account 1995. 20 21 **Asset Retirement Policy** 22 IAS 16 requires that the carrying amount of an item of PP&E shall be derecognized on disposal, or when 23 no future economic benefits are expected from its use. The gain or losses arising from derecognition of 24 an item of PP&E shall be included in profit or loss when the item is derecognized. 25 26 Effective January 1, 2013, Thunder Bay Hydro has been derecognizing assets as disposed of or when no 27 future benefits are expected. 28 29 **Asset Retirement Obligation** 30 31 Standard IAS 16 – PP&E states that the cost of an item of PP&E also includes the initial estimate of the 32 costs of dismantling and removing the item and restoring the site. Previously under CGAAP only legal obligations were required to be set up as an Asset Retirement Obligation ("ARO"). As a result, Thunder 33 34 Bay Hydro recognized the ARO associated with the PCB management compliance. 35 36 As a result of adopting IFRS, Thunder Bay Hydro has determined that a constructive obligation exists with 37 respect to the plan for the decommissioning of its substations. The constructive obligation relating to the



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- 1 unamortized costs of stations scheduled for dismantling has been calculated based on estimated
- 2 decommissioning costs and expected dates of decommissioning. As per Article 220 issued by the Board,
- 3 any differences arising as a result of accounting policy changes caused by the transition from previous
- 4 CGAAP to MIFRS relating to PP&E costs are to be recorded in account 1575 IFRS-CGAAP Transitional
- 5 PP&E Amounts. See Table Section 9.5.8 and Attachment 9-C in Exhibit 9 for details of constructive
- 6 obligation deferred in Variance Account 1575.
- 7

8 2.6.10 CAPITALIZATION OF OVERHEAD

- 9 Standard IAS 16 PP&E states that cost of an item of PP&E includes:
- 10 The purchase price
- Any costs directly attributable to bringing the asset to the location and condition necessary for it to
 be capable of operating in the manner intended by management
- The initial estimate of the costs of dismantling and removing the item and restoring the site on
 which it is located
- 15 IAS 16 does not define the term "directly attributable". The specific facts and circumstances surrounding
- 16 the nature of the costs and the activity associated with it must be considered to determine if it is directly
- 17 attributable to an item of PP&E. Where CGAAP allowed for the capitalization of general and
- administrative overhead, IFRS does not. As a result, Thunder Bay Hydro reviews the charges in each of
- 19 its "Overhead/Burden" departments to determine which costs would be directly attributable and therefore
- 20 eligible to be capitalized. As a result, overhead rates expensed in operating and maintenance accounts
- 21 are higher than those allocated to Capital.
- 22 Thunder Bay Hydro uses the following "Overhead/Burden" Accounts:

23 Corporate Benefit Burden

- 24 This account accumulates the costs of fringe benefits associated with labour such as dental benefits,
- 25 medical benefits, long-term disability, vested sick leave, future employee benefit costs and the Employee
- Assistance Program. These costs are distributed to an employee's Division/Department as a percentage
- 27 of their wages as they are paid during the year.
- 28

29 Downtime Burden

- 30 This account accumulates the related payroll costs for the powerline technician group ("PLT") associated
- 31 with vacations, statutory holidays, sick leave, other leaves of absence, employee training, safety
- 32 programs and any other unproductive labour time. These costs are allocated to operating, maintenance
- 33 or capital expenditures as a % based on powerline technician work order labour costs.



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- 1 Safety, training and education expenses are indirect expenses and cannot be capitalized under MIFRS.
- 2 These expenses include the following:
- 3 o In-house training
 4 o Miscellaneous courses and workshops
 - Safety consulting
- 6 o EUSA 7 o Safety
 - Safety meetings and training
- 8

5

9 Material Burden

10 This account accumulates the related costs associated with the Stores Department. These costs include

11 payroll costs of employees directly related with the stores operation cost, as well as property and

12 miscellaneous department charges. These costs are allocated as a percentage of materials issued

- 13 through stores.
- 14

15 Only the direct labour and benefits of the stores department are considered as directly attributable and

- 16 therefore eligible for capitalization. The Stores Manager as well as other vehicle charges, information
- technology and property expenses were considered as general and administrative expenses.
- 18

19 Supervisory Burden

- 20 This account accumulates the related payroll and operation costs related to the powerline technician
- 21 Supervisor group. These costs are allocated to operating, maintenance or capital expenditures as a %
- 22 based on PLT work order labour costs.
- 23
- 24 Only labour and benefits associated with the PLT supervisors who provide direct supervision of the PLT
- 25 staff which are directly attributable to capital were considered as eligible for capitalization. Costs
- associated with the superintendent, clerks and miscellaneous department expenses were considered as
- 27 general and administrative expenses.
- 28

29 Engineering Burden

- 30 This account accumulates the costs associated with the costs of engineering operations, including
- engineering staff and their support staff payroll costs, facilities, equipment and supplies. When working
- 32 directly on a capital project, engineering staff will time sheet directly to the capital work order. Any
- remaining engineering department costs are allocated to operating, maintenance or capital expenditures
- 34 as a % based on powerline technician work order labour costs.
- 35



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- 1 Engineering staff includes the engineering manager, a part time engineering clerk, technicians, and
- 2 drafting and design services. It was determined that only the staff costs associated with the technician,
- 3 drafting and design services were directly attributable to capital projects. Further, miscellaneous charges
- 4 such as IT expenses, property charges and other miscellaneous department expenses were not
- 5 considered as directly attributable to capital and therefore are not burdened to capital projects.
- 6

7 Rolling Stock Burden

8 This account accumulates the costs associated with maintaining trucks, equipment and trailers etc.

- 9 These costs include payroll costs related to the mechanics and common rolling stock operation costs
- 10 such as fuel, lubricants, repairs, parts, insurance as well as office and computer costs directly related to

11 the rolling stock operations. The total cost of operating all vehicles is charged to specific jobs, based on

- 12 an hourly rate for the time each vehicle is on a job. Timesheets are completed for each truck and
- 13 therefore the costs are directly attributable to specific jobs.
- 14

15 Only departmental expenses such as depreciation on rolling stock, fuel and other operating expenses

- 16 directly attributable to maintaining and operating the rolling stock are considered directly attributable to
- 17 capital. Wages and benefits of the mechanics and other miscellaneous and property expenses were
- 18 considered general or administrative under IFRS and therefore are not eligible for capitalization.
- 19

20 All overhead charges are reviewed regularly. Any residual balances remaining after regular distribution 21 are cleared to the applicable capital, operating or maintenance accounts depending on the actual 22 occurrence of the cost allocation relationships. Thunder Bay Hydro has completed Table 2-21, which 23 provides a summary of OM&A before capitalization and a breakdown of capitalized OM&A. This table is 24 consistent with the Board's Appendix 2-D which is also included as Attachment 2-E of this Exhibit. 25 26 27 28 29 30 31

- 32 33
- 34



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1 TABLE 2-21: OVERHEAD EXPENSES

OM&A Before Capitalization	2013 Historical Year	2014 Historical Year	2015 Historical Year	2016 Bridge Year	2017 Test Year
Total OM&A Before Capitalization (B)	\$16,149,367	\$16,407,572	\$17,212,082	\$18.370.621	\$18,996,027

Applicants are to provide a breakdown of capitalized OM&A in the below table. Capitalized OM&A may be broken down using the categories listed in the table below if possible. Otherwise, applicants are to provide its own break down of capitalized OM&A.

Capitalized OM&A	2013	2014	2015	2016	2017	Directly Attributable?	Explanation for Change in Overhead
	Historical Year	Historical Year	Historical Year	Bridge Year	Test Year	(Yes/No)	Capitalized
							No changes necessary
Benefits	\$112,332	\$109,853	\$135,209	\$150,034	\$170,953	Yes	on transition to MIFRS
							No changes necessary
Downtime	\$351,316	\$366,214	\$520,425	\$493,088	\$573,241	Yes	on transition to MIFRS
							No changes necessary
Material	\$75,962	\$87,911	\$97,486	\$96,642	\$100,910	Yes	on transition to MIFRS
							No changes necessary
Supervisory	\$405,268	\$477,765	\$555,176	\$548,051	\$596,441	Yes	on transition to MIFRS
							No changes necessary
Engineering	\$1,033,598	\$1,029,132	\$974,724	\$1,002,953	\$1,062,413	Yes	on transition to MIFRS
							No changes necessary
Trucking	\$938,008	\$514,180	\$685,057	\$665,470	\$762,197	Yes	on transition to MIFRS
Total Capitalized OM&A (A)	\$2,916,483	\$2,585,055	\$2,968,078	\$2,956,238	\$3,266,155		
% of Capitalized OM&A (=A/B)	18%	16%	17%	16%	17%		

2

3 2.6.11 COMPLIANCE OF SAMPLING OF SMART METERS

- 4 Thunder Bay Hydro is in the early stages of its Smart Meter Compliance Plan implementation.
- 5

6 The original meters are approaching 10 years of age and are scheduled for meter re-verification, as to

7 Measurement Canada requirements. It is anticipated that purchase of replacement meters will begin in

8 late 2016 and continue thereafter.

9

Further details of the Smart Meter Compliance plan can be found in the DSP, Attachment 2-B, AppendixF.

12 2.6.12 COSTS OF ELIGIBLE INVESTMENTS FOR THE CONNECTION OF QUALIFYING 13 GENERATION FACILITIES

14 OVERVIEW

15

16 Section 2.2.2.5 of the Filing Requirements contemplates that a distributor will file for provincial rate

- 17 protection associated with any costs incurred to make eligible investments, as described in Section 79.1
- 18 of the Ontario Energy Board Act and Regulation 330/09 ("O. Reg. 330/09") made under the Act.
- 19 Costs incurred by a distributor, in accordance with cost responsibility rules in the Board's Distribution
- 20 System Code for the purpose of connecting or enabling the connection of Renewable Energy Generation



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- 1 ("REG") facilities to its distribution system, are considered to be eligible investments for the purpose of
- 2 provincial rate recovery under Section 79.1 of the Act.

3 HISTORY

4

- 5 There has been significant renewable generation activity across Thunder Bay Hydro's distribution system.
- 6 As of January 2016, Thunder Bay Hydro has connected 207 microFIT projects and 19 FIT and other
- 7 small and mid-sized renewable projects with a total nameplate capacity of 24.1 MW.
- 8 Thunder Bay Hydro's distribution system currently has constraints in specific areas of its distribution
- 9 system that prevent it from accommodating new microFIT REG connections in these areas. The first
- 10 being capacity limitations at the Hydro One owned Port Arthur TS supplying Thunder Bay Hydro, and the
- 11 second being generation loads exceeding minimum feeder loads in the rural areas of the distribution
- 12 system. The first limitation requires investment by Hydro One and the second does not currently have
- 13 any widely accepted solutions available.
- 14 Ontario Regulation 330/09 under the Ontario Energy Board Act, 1998, regarding cost recovery for eligible 15 investments for the purpose of connecting or enabling the connection of a qualifying generation facility to 16 a distribution system, requires the Ontario Energy Board to calculate the monthly amount to compensate 17 qualifying distributors for rate protection provided to consumers. Thunder Bay Hydro had been collecting 18 amounts from the IESO, in relation to the GEA as approved in Thunder Bay Hydro's Last Rebasing -19 2013 Board Approved. Thunder Bay Hydro confirms that the one GEA project identified has been 20 cancelled and as a result, the amounts collected from the IESO are to be returned. Accordingly, Thunder 21 Bay Hydro requests disposition of funds collected under GEA of \$48,072 principal and \$710 carrying 22 charges for a total of \$48,782 to be returned to the IESO. Details of this request can be found in Exhibit 9, 23 Section 9.5.4 Account 1533.

24 APPLICATION

- 25 Thunder Bay Hydro does not expect any capital expenditures related to REG in its DSP. There are no
- 26 additional OM&A costs related to REG facilities as Thunder Bay Hydro is able to process both MicroFIT
- 27 and FIT applications utilizing existing employees. Therefore, Thunder Bay Hydro does not require
- recovery costs incurred to make eligible investments as described in Section 79.1 of the Act and O. Reg.
- 29 330/09 under the Act.
- 30 As such, no draft accounting order is required to establish a variance account for tracking of IESO
- 31 payment revenues against the actual spending. Thunder Bay Hydro has completed Appendix 2-FA,
- 32 Appendix 2-FB and Appendix 2-FC, which can be found in Attachment 2-F, 2-G, and 2-H respectively.



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1 2.6.13 New Policy Options for the Funding of Capital

- 2 On September 18, 2014, the Board released the "Report of the Board New Policy Options for the Funding
- 3 of Capital Investments: The Advanced Capital Module" and in it the Board has established the following
- 4 mechanism to assist distributors in aligning capital expenditure timing and prioritization with rate
- 5 predictability and smoothing:

6 7

8

9

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- The review and approval of business cases for incremental capital requests that are subject to the criteria of materiality, need and prudence are advanced to coincide with the distributor's cost of service application. To distinguish this from the Incremental Capital Module ("ICM"), this new mechanism will be named the Advanced Capital Module ("ACM").
- Advancing the reviews of eligible discrete capital projects, included as part of a distributor's Distribution System Plan ("DSP") and scheduled to do into service during the IR term, is expected to facilitate enhanced pacing and smoothing of rate impacts, as the distributor, the Board and other stakeholders will be examining the capital projects over the five-year horizon of the DSP.
- 17 At this time, Thunder Bay Hydro does not have certainty on any discrete capital projects within the five-
- 18 year horizon that it believes would require the new policy option. The capital investment required by
- 19 Thunder Bay Hydro from 2017 through 2021 is relatively flat and Thunder Bay Hydro believes it can be
- 20 managed through the rates proposed in this Application.

21 2.6.14 Additions of ICM Assets to Rate Base

- 22 Thunder Bay Hydro has not applied for nor received approval of any ICM assets and therefore has no
- 23 such asset added to its rate base. Accordingly, Thunder Bay Hydro has not completed the Board's
- 24 Capital Model applicable to ACM and ICM Version 3.01.

25 2.6.15 SERVICE QUALITY AND RELIABILITY PERFORMANCE

- 26 Thunder Bay Hydro follows the Board's Reporting and Record Keeping Requirements Guideline to report
- its Service Quality Indicators annually. In accordance with the Filing Requirements, Table 2-22 is
- 28 provided below which is consistent with the Board Appendix 2-G, Service Quality Indicators and is
- 29 included as Attachment 2-I to this Exhibit. The table provides the performance measures for the last five
- 30 historical years 2011 through 2015. Note new reporting statistics for major events have been issued by
- 31 the Board; however, there are no historical reporting statistics available at this time Thunder Bay Hydro is
- 32 developing its procedures at the moment to report these in the future.
- 33 Thunder Bay Hydro has consistently performed within the Board's range of acceptable performance over
- 34 the previous five years and no corrective action is required.
- 35
- 36



1 TABLE 2-22: SERVICE RELIABILITY

Service Reliability

	Service Reliability														
Not yet reportable															
Index	Includ	Excluding outages caused by loss of supply					Excluding Major Events								
muex	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
SAIDI	2.94	2.79	1.29	1.04	2.15	2.60	2.77	1.28	1.03	1.92					
SAIFI	4.56	3.80	3.12	2.14	2.94	3.68	3.65	3.12	2.02	2.68					

	5 Year Historical Average	
SAIDI	2.042	1.920
SAIFI	3.311	3.030

SAIDI = System Average Interruption Duration Index

2 SAIFI = System Average Interruption Frequency Index

Service Quality

Indicator	OEB Minimum Standard	2011	2012	2013	2014	2015
Low Voltage Connections	90.0%	98.30%	99.80%	99.10%	99.80%	100.00%
High Voltage Connections	90.0%	100.00%	100.00%	100.00%	100.00%	100.00%
Telephone Accessibility	65.0%	92.70%	91.80%	90.10%	91.80%	87.10%
Appointments Met	90.0%	99.10%	91.90%	99.60%	97.80%	100.00%
Written Response to Enquires	80.0%	97.80%	97.30%	97.40%	99.60%	96.90%
Emergency Urban Response	80.0%	96.70%	96.50%	93.50%	97.60%	92.20%
Emergency Rural Response	80.0%	93.90%	100.00%	100.00%	100.00%	97.20%
Telephone Call Abandon Rate	10.0%	0.70%	1.00%	0.90%	0.70%	1.30%
Appointment Scheduling	90.0%	99.10%	91.90%	99.60%	97.80%	98.80%
Rescheduling a Missed Appointment	100.0%	100.00%	100.00%	100.00%	100.00%	100.00%
Reconnection Performance Standard	85.0%	0.00%	100.00%	100.00%	100.00%	100.00%

3 4

⁵ Further performance discussions regarding Service Quality Indicators can be found in Exhibit 1.

ATTACHMENT 2 – A

Fixed Asset Continuity Schedules

Board Appendix 2-BA

										Exhibit: Tab: Attachment: Page:	2 2-A
										Date:	09-Sep-16
					Annondi						
					Appendi		. 1				
				Fixed	Asset Conti	nuity Schedu	e '				
			Acc	ounting Standard Year	CGAAP 2013						
				Co	-4			Accumulated De	nraciation		1
CCA Class ²	OEB Account ³	Description ³	Opening Balance	Additions ⁴	Disposals ⁶	Closing Balance	Opening Balance	Additions	Disposals ⁶	Closing Balance	Net Book Value
	1609	Hydro One Gate Station	\$1,272,321	\$0	\$0	\$ 1,272,321	(\$137,026)	(\$50,893)	\$0	(\$187,919)	\$1,084,403
12	1611	Computer Software (Formally known as	01,212,021	ţ.	ţ.	• 1,212,021	(0101,020)	(\$00,000)	ŶŬ	(\$101,010)	¢1,001,100
12	1011	Account 1925)	\$1,175,257	\$2,442	\$0	\$ 1,177,699	(\$986,708)	(\$85,451)	\$0	(\$1,072,159)	\$105,540
CEC	1612	Land Rights (Formally known as Account 1906)				ş -				\$0	\$0
N⁄A	1805	Land	\$133,038	\$0	\$0		\$0	\$0	\$0	\$0	\$133,038
47	1808	Buildings	\$3,932,848	\$3,277,071	\$0 \$0		(\$1,862,466)	(\$72,044)	\$0	(\$1,934,510)	\$5,275,408
13 47	1810 1815	Leasehold Improvements Transformer Station Equipment >50 kV	\$63,262 \$0	\$0 \$0	\$0 \$0		(\$5,218) \$0	(\$31,202) \$0	\$0 \$0	(\$36,421) \$0	\$26,842 \$0
47	1815	Distribution Station Equipment <50 kV	\$8,315,333	\$0 \$0	30 \$0		(\$6,155,163)	(\$381,948)	\$0 \$0	(\$6,537,112)	\$1,778,221
47	1825	Storage Battery Equipment	\$0	\$0	\$0	ş -	\$0	\$0	\$0	\$0	\$0
47 47	1830 1835	Poles, Towers & Fixtures Overhead Conductors & Devices	\$31,903,597 \$33,136,377	\$3,330,045 \$2,336,486	(\$334,965) (\$447,871)	\$ 34,898,676 \$ 35,024,992	(\$10,540,767) (\$16,817,216)	(\$680,780) (\$410,914)	\$275,073 \$414,010	(\$10,946,473) (\$16,814,120)	\$23,952,203 \$18,210,872
47	1835	Underground Conduit	\$33,136,377 \$13,776,181	\$2,330,486 \$794,647		\$ 35,024,992 \$ 14,566,565	(\$16,817,216) (\$7,631,382)	(\$410,914) (\$108,897)	\$414,010 \$4,057	(\$16,814,120) (\$7,736,222)	\$18,210,872 \$6,830,343
47	1845	Underground Conductors & Devices	\$18,998,032	\$161,567	(\$49,902)	\$ 19,109,697	(\$9,512,097)	(\$340,475)	\$45,580	(\$9,806,992)	\$9,302,704
47	1850	Line Transformers	\$27,514,625	\$1,470,236	Vic. 1411.1	\$ 28,466,479 \$ 285,274	(\$15,496,747)	(\$461,892)	\$801,924	(\$15,156,715)	\$13,309,764
47 47	1850 1855	ARO Services (Overhead & Underground)	\$299,629 \$20,981,631	(\$14,255) \$293,577	\$0 \$0		(\$79,665) (\$14,647,010)	(\$27,666) (\$197,688)	\$0 \$0	(\$107,331) (\$14,844,698)	\$178,043 \$6,430,510
47	1860	Meters	\$9,039,600	\$162,539		\$ 9,123,013	(\$2,589,341)	(\$539,425)	\$64,781	(\$3,063,985)	\$6,059,028
47	1860	Meters (Smart Meters)				\$ -				\$0	\$0
N/A 47	1905 1908	Land Buildings & Fixtures	\$0 \$0	\$0 \$0	\$0 \$0		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
4/	1908	Leasehold Improvements	\$0	\$0 \$0	\$0 \$0		\$0	\$0	\$0	\$0 \$0	\$0
8	1915	Office Furniture & Equipment (10 years)	\$1,418,601	\$44,016	\$0		(\$1,168,335)	(\$38,653)	\$0	(\$1,206,988)	\$255,629
8	1915	Office Furniture & Equipment (5 years)	An no7 5 10	A50.040		\$ -	(\$0.700.047)	(000, (40)	ân 007	\$0	\$0
10 45	1920 1920	Computer Equipment - Hardware Computer EquipHardware(Post Mar. 22/04)	\$3,007,548	\$53,319	(111)	\$ 3,057,261 \$ -	(\$2,723,217)	(\$99,442)	\$3,607	(\$2,819,053) \$0	\$238,208
45.1	1920	Computer EquipHardware(Post Mar. 19/07)				ş .				\$0	\$0
10 8	1930	Transportation Equipment	\$6,540,014	\$760,604	10 11 11	\$ 7,254,571	(\$4,554,808) (\$62,835)	(\$181,394)	\$46,046	(\$4,690,155)	\$2,564,416
8	1935 1940	Stores Equipment Tools, Shop & Garage Equipment	\$63,417 \$2,490,345	\$0 \$50,258	\$0 \$0		(\$02,035) (\$2,263.685)	(\$582) (\$49,469)	\$0 \$0	(\$63,417) (\$2,313,154)	(\$0) \$227,449
8	1945	Measurement & Testing Equipment	\$291,550	\$7,634	\$0 \$0		(\$159,853)	(\$24,343)	\$0 \$0	(\$184,197)	\$114,987
8	1950	Power Operated Equipment	\$204,487	\$11,395	\$0		(\$59,790)	(\$21,362)	\$0	(\$81,152)	\$134,730
8	1955	Communications Equipment	\$237,543	\$39,140	\$0		(\$164,718)	(\$20,551)	\$0	(\$185,269)	\$91,413
8	1955 1960	Communication Equipment (Smart Meters) Miscellaneous Equipment	\$0	\$0	\$0	\$- \$-	\$0	\$0	\$0	\$0 \$0	\$0 \$0
	1970	Load Management Controls Customer									
47 47	1975	Premises Load Management Controls Utility Premises	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0
47		System Supervisor Equipment	\$0 \$323.861	\$0 \$0	\$0 \$0		\$0	\$0 (\$32,357)	\$0 \$0	\$0 (\$129.578)	\$0 \$194.282
47	1980	Miscellaneous Fixed Assets	a323,001	9U		\$ 323,801 \$ -	(\$\$1,221)	(\$32,307)	\$0	(\$129,578) \$0	\$194,282
47	1990	Other Tangible Property				ş .				\$0	\$0
47	1995	Contributions & Grants	(\$16,749,780)	(\$1,792,509)	\$0	-\$ 18,542,289	\$ 3,684,311.33	\$ 422,209.81	\$-	\$4,106,521	(\$14,435,768)
47 WIP	2440	Deferred Revenue ⁵ Work in Process	\$2,906,520	(\$759,326)	\$0	\$ 2,147,194	s -	\$	\$	\$0	\$2,147,194
WIF.		TTOIN III I 100000	92,300,320	(ør 09,320)		\$ 2,147,194 \$ -		×	×	\$0 \$0	
		Sub-Total	\$171,275,834	\$10,228,885		\$ 180,020,557	(\$94,030,956)	(\$3,435,219)	\$1,655,076	(\$95,811,099)	\$84,209,458
		Less Socialized Renewable Energy Generation Investments (input as negative)				ş .				\$0	\$0
		Less Other Non Rate-Regulated Utility Assets (input as negative)				s .				\$0	\$0
		Total PP&E	\$171,275,834	\$10,228,885	(\$1,484,162)	\$ - \$ 180,020,557	(\$94,030,956)	(\$3,435,219)	\$1,655,076	\$0 (\$95,811,099)	\$0 \$84,209,458
		Depreciation Expense adj. from gain or lo			1.1.1.1.1			\$0		1	
		Total						(\$3,435,219)	l		
							Less: Fully Allocated	Depreciation			
10		Transportation					Overhead Depts &				
8		Stores Equipment					Information Systems		(\$341,262)		
							Net Depreciation		(\$3,093,956)		

Appendix 2-BA

Fixed Asset Continuity Schedule¹

Accounting Standard MIFRS

2014 Year Cost Accumulated Depreciation CCA OEB Disposals⁶ Opening Balance Disposals⁶ Closing Balance Net Book Value Account ³ Description ³ Additions ⁴ **Closing Balance** Opening Balance Additions Class² 1609 Hydro One Gate Station \$1,272,321 \$0 \$0 \$ 1,272,321 \$0 (\$238.811) \$1.033.510 Computer Software (Formally known as 12 1611 (\$1,072,15 (\$72.24 (\$1,144,400 Account 1925) \$1,177,699 \$62,420 \$0 \$ 1,240,119 \$0 \$95,719 Land Rights (Formally known as Account CEC 1612 1906) \$0 \$0 \$0 \$0 N/A 1805 Land \$133.038 **\$**0 \$0 \$ 133.038 \$0 \$0 \$0 \$0 \$133.038 Buildings 47 1808 \$7,209,919 \$0 \$ 7,211,448 \$0 \$5,086,265 13 1810 Leasehold Improvements \$63,262 \$0 \$0 \$ 63,262 \$0 \$0 47 1815 Transformer Station Equipment >50 kV \$0 \$0 \$0 \$ \$0 \$0 \$0 \$0 \$0 47 Distribution Station Equipment <50 kV \$8,315,333 \$0 8,315,333 \$1,552,262 1820 \$0 \$ \$0 47 \$0 \$0 \$0 \$ \$0 \$0 \$0 \$0 1825 Storage Battery Equipment \$0 47 \$2,957,606 37,558,115 \$260,420 \$26,098,782 1830 Poles, Towers & Fixtures \$34,898,676 47 1835 Overhead Conductors & Devices \$1,436,851 36,316,005 \$19,193,025 \$35,024,992 \$136,560 (\$17.122 7) \$ 47 1840 \$14,566,565 14,501,643 \$17,123 \$6,669,935 Underground Conduit (\$112 (\$7,83 47 1845 Underground Conductors & Devices \$1,042,229 20,088,339 \$51,781 \$9,972,898 \$19,109,697 (\$10,115.44 47 1850 Line Transformers \$14,835,949 \$28,466,479 \$2,157,714 30,157,292 \$342,906 47 1850 ARO \$285.374 \$0 \$ 236.657 (\$127.05) \$109.606 (\$48,717) (\$19.72 \$0 22,172,737 1855 Services (Overhead & Underground) \$1.017.823 47 \$21.275.208 \$102,465 (\$14,948 \$7.224.213 I S (\$206,2 47 Meters \$9,123,013 \$410,304 \$5,693,106 1860 30,941) \$ 9,352,376 (\$551.61) (\$43,66 (\$3,659,270 47 1860 Meters (Smart Meters) \$0 \$0 \$0 \$0 N/A 1905 Land \$0 \$0 \$0 \$ -\$0 \$0 \$0 \$0 \$0 Buildings & Fixtures \$0 \$ 47 1908 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 13 1910 Leasehold Improvements \$0 \$0 \$ \$0 \$0 \$0 \$34,690 1 486 967 \$10.341 \$249,308 8 1915 Office Furniture & Equipment (10 years) \$1 462 617 (\$10.341) \$ (\$41 011) 237 658) 206 200 8 1915 Office Furniture & Equipment (5 years) \$0 \$0 \$0 \$0 S 10 1920 Computer Equipment - Hardware \$3.057.261 \$76,739 3.113.439 \$20,187 \$212,715 S (\$101.8 45 Computer Equip.-Hardware(Post Mar. 22/04) 1920 \$0 \$0 \$0 \$0 45.1 1920 Computer Equip.-Hardware(Post Mar. 19/07) \$0 \$0 \$0 \$0 10 1930 Transportation Equipment \$7,254,571 \$622,613 7,559,287 \$308,342 \$2,955,597 8 1935 \$63,417 \$0 \$ 63,417 \$0 Stores Equipment \$0 (\$63.41 \$0 (\$63,417 (\$ 8 1940 \$2,540,603 \$160,587 \$0 \$ 2,701,190 \$6,049 \$345,995 Tools, Shop & Garage Equipment (\$2,355,19 8 1945 Measurement & Testing Equipment \$299,184 \$26,888 317,728 \$110,505 \$0 (\$20 \$215,882 \$0 \$ 215,882 8 1950 Power Operated Equipment \$0 \$0 \$118,068 8 1955 Communications Equipment \$276,683 \$3,147 \$0 \$ 279,830 \$0 (\$212.945 \$66,885 1955 Communication Equipment (Smart Meters) \$0 8 \$0 \$0 \$0 \$0 \$0 \$0 1960 Miscellaneous Equipment \$0 \$0 \$0 \$ \$0 \$0 8 -Load Management Controls Customer 1970 47 \$0 \$0 \$0 \$0 \$0 \$ \$0 \$0 \$0 Premises 47 1975 Load Management Controls Utility Premises \$0 \$0 \$0 \$ \$0 \$0 \$0 \$0 \$0 47 1980 System Supervisor Equipment \$323.861 \$39.038 \$0 \$ 362 898 \$0 (\$153,359) \$209 539 (\$23 781 47 1985 Miscellaneous Fixed Assets \$0 \$0 \$0 \$0 47 1990 Other Tangible Property \$0 \$0 \$0 \$0 S 20 679 331 458 949 54 \$ 47 1995 Contributions & Grants \$0 -\$ 4 106 521 14 \$ \$4 565 471 2801 \$ 47 2440 Deferred Revenue⁵ \$0 \$0 \$741,545 2,888,739 WIP Work in Process \$2,147,194 \$0 \$ \$0 \$2,888,739 \$0 \$0 \$180,020,557 \$8,559,027 \$1,212,503 \$88,741,796 Sub-Total 186,928,731 Less Socialized Renewable Energy Generation Investments (input as negative) \$0 \$0 Less Other Non Rate-Regulated Utility Assets (input as negative) \$0 \$0 Total PP&E \$180.020.557 \$8.559.027 (\$1.650.853) \$ 186.928.731 \$1.212.503 \$88.741.796 Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable 6 \$0 Total Less: Fully Allocated Depreciation 10 Transportation Overhead Depts &

8

Stores Equipment

Information Systems Net Depreciation (\$497,156) (\$3,091,183)

					Appendi							
				Fixed	Asset Conti	nuity Schedu	ile ¹					
			Acc	ounting Standard	MIFRS							
				Year	2015							
CCA	OEB			Co	st					preciation		
Class ²		Description ³	Opening Balance	Additions 4	Disposals ⁶	Closing Balance	Opening Bal		Additions	Disposals ⁶	Closing Balance	Net Book Value
	1609	Hydro One Gate Station Computer Software (Formally known as	\$1,272,321	\$0	\$0	\$ 1,272,321	(\$2)	8,811)	(\$50,893)	\$0	(\$289,704)	\$982,617
12	1611	Account 1925)	\$1,240,119	\$53,506	\$0	\$ 1,293,625	(\$1,14	4,400)	(\$57,482)	\$0	(\$1,201,882)	\$91,743
CEC	1612	Land Rights (Formally known as Account 1906)	\$0			s -		\$0			\$0	\$0
N/A	1805	Land	\$133,038	\$0	\$0	\$ 133,038		\$0	\$0	\$0	\$0	\$133,038
47 13	1808 1810	Buildings Leasehold Improvements	\$7,211,448 \$63,262	\$152,835 \$0	\$0 \$0	\$ 7,364,283 \$ 63,262		(5,183) (3,262)	(\$191,984) \$0	\$0 \$0	(\$2,317,167) (\$63,262)	\$5,047,116 \$0
47	1815	Transformer Station Equipment >50 kV	\$03,262 \$0	30 \$0		\$ 03,202 \$ -	(5)	13,202) \$0	30 \$0	\$0 \$0	(\$03,202) \$0	\$0 \$0
47	1820	Distribution Station Equipment <50 kV	\$8,315,333	\$0	\$0	\$ 8,315,333	(\$6,76	3,071)	(\$200,250)	\$0	(\$6,963,322)	\$1,352,011
47 47	1825 1830	Storage Battery Equipment Poles, Towers & Fixtures	\$0 \$37,558,115	\$0 \$4,241,394	\$0 (\$373.588)	\$ - \$ 41,425,920	(\$11.4	\$0 (9.332)	\$0 (\$855.217)	\$0 \$313.220	\$0 (\$12,001,330)	\$0 \$29,424,591
47	1835	Overhead Conductors & Devices	\$36,316,005	\$2,218,273	(\$258,712)	\$ 38,275,567	(\$17,12	2,980)	(\$475,176)	\$247,468	(\$17,350,689)	\$20,924,878
47 47	1840 1845	Underground Conduit Underground Conductors & Devices	\$14,501,643	\$807,662 \$649,675	V 1 1	\$ 15,306,002 \$ 20,600,869	(\$7,8) (\$10,1)		(\$116,164) (\$378,575)	\$3,154 \$126,920	(\$7,944,719) (\$10,367.095)	\$7,361,283 \$10.233.774
47 47	1845	Line Transformers	\$20,088,339 \$30,157,292	\$649,675 \$1,539,937	N 1 1	\$ 20,600,869 \$ 31,213,946	(\$10,1) (\$15.3)		(\$378,575) (\$535,008)	\$126,920 \$386,941	(\$10,367,095) (\$15,469,410)	\$10,233,774 \$15,744,537
	1850	ARO	\$236,657	(\$26,686)	N 1 1	\$ 209,971	(\$1)	7,051)	(\$14,120)	\$0	(\$141,171)	\$68,800
47 47	1855 1860	Services (Overhead & Underground) Meters	\$22,172,737 \$9,352,376	\$415,379 \$554,669	V 1 1	\$ 22,578,084 \$ 9,791,618	(\$14,94	11 1	(\$238,636) (\$564,951)	\$9,479 \$303	(\$15,177,681) (\$4,223,919)	\$7,400,403 \$5,567,700
47	1860	Meters (Smart Meters)	\$9,552,576 \$0	ą004,009	(\$110,427)	\$ 9,791,010	(\$3,0)	19,270) \$0	(\$304,931)	\$303	(34,223,919)	\$5,567,700 \$0
NA	1905	Land	\$0	\$0	\$0	ş -		\$0	\$0	\$0	\$0	\$0
47 13	1908 1910	Buildings & Fixtures Leasehold Improvements	\$0 \$0	\$0 \$0	\$0 \$0			\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
8	1910	Office Furniture & Equipment (10 years)	\$0 \$1,486,967	\$114,528	-	\$ 1,585,517	(\$1,2)		(\$48,134)	\$15,978	(\$1,269,815)	\$0 \$315,703
8	1915	Office Furniture & Equipment (5 years)	\$0			ş -		\$0			\$0	\$0
10	1920	Computer Equipment - Hardware	\$3,113,439	\$137,531	(\$14,153)	\$ 3,236,818	(\$2,9	0,725)	(\$115,757)	\$12,450	(\$3,004,032)	\$232,786
45	1920	Computer EquipHardware(Post Mar. 22/04)	\$0			ş -		\$0			\$0	\$0
45.1	1920	Computer EquipHardware(Post Mar. 19/07)	\$0			ş -		\$0			\$0	\$0
10 8	1930 1935	Transportation Equipment Stores Equipment	\$7,559,287 \$63,417	\$485,438 \$0	N 1 1	\$ 7,597,012 \$ 63,417	(\$4,60	13,690) 13,417)	(\$260,569) \$0	\$447,714 \$0	(\$4,416,546) (\$63,417)	\$3,180,466
0 8	1955	Tools, Shop & Garage Equipment	\$03,417	\$158,841	(\$36,358)	\$ 2,823,673		i5,417) i5,196)	(\$62,122)	\$33,361	(\$03,417) (\$2,383,956)	(30) \$439,717
8	1945	Measurement & Testing Equipment	\$317,728	\$41,458		\$ 359,187	· · · · ·	17,224)	(\$24,684)	\$0	(\$231,908)	\$127,279
8 8	1950 1955	Power Operated Equipment Communications Equipment	\$215,882 \$279,830	\$196,682 \$4,150	\$0 \$0	\$ 412,564 \$ 283,980		(7,814) 2,945)	(\$32,051) (\$27,181)	\$0 \$0	(\$129,864) (\$240,125)	\$282,700 \$43,854
8	1955	Communication Equipment (Smart Meters)	φ213,030 \$0	\$94,130		\$ -	(92	\$0 \$0	\$0	\$0	(#240,123) \$0	\$0
8	1960	Miscellaneous Equipment	\$0	\$0	\$0	ş -		\$0	\$0	\$0	\$0	\$0
47	1970	Load Management Controls Customer Premises	\$0	\$0	\$0	s .		\$0	\$0	\$0	SO	\$0
47	1975	Load Management Controls Utility Premises	\$0	\$0	\$0 \$0			\$0 \$0	\$0	\$0	\$0	\$0 \$0
47	1980	System Supervisor Equipment	\$362,898	\$0 \$0		\$ - \$ 362,898	(\$1:	ې نې (3,359)	(\$24,858)	\$0 \$0	\$0 (\$178,217)	\$0 \$184,681
47	1985	Miscellaneous Fixed Assets	\$0			ş -		\$0			\$0	\$0
47 47	1990 1995	Other Tangible Property Contributions & Grants	\$0 (\$20.679.331)	(\$1,984,671)	\$0	\$ - \$ 22,664,002	\$ 4,565,4	\$0	\$ 504,470.93	ş .	\$0 \$5,069,942	\$0 (\$17,594,060)
47		Deferred Revenue ⁵	(\$20,679,331) \$0	(\$1,904,0/1)	\$0	<u>-\$</u> 22,664,002 \$-	\$ 4,000,4	-	a 004,470.93	φ ·	\$5,069,942	(\$17,594,060) \$0
WIP		Work in Process	\$2,888,739	\$125,762	\$0	\$ 3,014,501	\$	-	ş -	\$ -	\$0	\$3,014,501
		Sub-Total	\$186,928,731	\$9,886,365	(\$1,895,693)	\$ - \$ 194,919,403	\$ (\$98,18	- 6 935)	(\$3,769,341)	\$1,596,987	\$0 (\$100,359,288)	\$0 \$94,560,115
		Less Socialized Renewable Energy Generation Investments (input as negative)		φυιυθιυθυ	(41,000,000)		(φου, Π	,	(90,100,041)	ψ1,030,00 <i>1</i>		
		Less Other Non Rate-Regulated Utility				ş -					\$0	\$0
		Assets (input as negative)				ş -					\$0	\$0
		Total PP&E	\$186,928,731	\$9,886,365	(\$1,895,693)	\$ 194,919,403	(\$98,10	6,935)	(\$3,769,341)	\$1,596,987	(\$100,359,288)	\$94,560,115
		Depreciation Expense adj. from gain or lo Total	oss on the retiremen	it of assets (pool o	т нке assets), if a	pplicable*			\$0 (\$3,769,341)			
			_				Less: Fully All	cated	Depreciation			
10		Transportation	ļ				Overhead Dept			(6	1	
8		Stores Equipment	1				Information Sy: Net Depreciat			(\$551,714) (\$3,217,627)	{	
1							ner pehicolai			(ψυ,211,021)	1	

					Appendi		. 1				
				Fixed	Asset Conti	nuity Schedu	le '				
			Acc	ounting Standard	MIFRS						
				Year	2016						
				Co	st			Accumulated De	preciation		
CCA Class ²	OEB Account ³	Description ³	Opening Balance	Additions 4	Disposals ⁶	Closing Balance	Opening Balance	Additions	Disposals ⁶	Closing Balance	Net Book Val
GIdSS	1609	Hydro One Gate Station	\$1,272,321	Additions \$0	Uispusais \$0	\$ 1,272,321	(\$289,704)	(\$50,893)	Uispusais \$0	(\$340,597)	\$931,
12	1611	Computer Software (Formally known as				· · · · · · · · · · · · · · · · · · ·	(******	(***)***/		(**,**,	(***)
12	1011	Account 1925)	\$1,293,625	\$77,000	\$0	\$ 1,370,625	(\$1,201,882)	(\$73,141)	\$0	(\$1,275,023)	\$95,
CEC	1612	Land Rights (Formally known as Account 1906)	\$0			s -	\$0			\$0	
N/A	1805	Land	\$133,038	\$0	(\$3,186)	\$ 129,852	\$0	\$0	\$0	30 \$0	\$129,
47	1808	Buildings	\$7,364,283	\$81,000	\$0		(\$2,317,167)	(\$193,682)	\$0	(\$2,510,849)	\$4,934,
13	1810	Leasehold Improvements	\$63,262	\$50,000			(\$63,262)	(\$1,000)	\$0	(\$64,262)	\$49,
47	1815	Transformer Station Equipment >50 kV	\$0	\$0	\$0		\$0	\$0	\$0	\$0	P4 454
47 47	1820 1825	Distribution Station Equipment <50 kV Storage Battery Equipment	\$8,315,333 \$0	\$0 \$0	\$0 \$0		(\$6,963,322) \$0	(\$200,251) \$0	\$0 \$0	(\$7,163,573) \$0	\$1,151,
47	1830	Poles, Towers & Fixtures	\$41,425,920	\$3,043,610		\$ 44,121,457	(\$12,001,330)	(\$908,347)	\$282,904	(\$12,626,773)	\$31,494,
47	1835	Overhead Conductors & Devices	\$38,275,567	\$3,804,734	(\$294,723)	\$ 41,785,578	(\$17,350,689)	(\$504,696)	\$266,012	(\$17,589,373)	\$24,196,
47	1840	Underground Conduit	\$15,306,002	\$359,914	(\$8,835)	\$ 15,657,081	(\$7,944,719)	(\$123,381)	\$8,111	(\$8,059,989)	\$7,597,
47	1845	Underground Conductors & Devices	\$20,600,869	\$768,543	(\$86,656)	\$ 21,282,756 \$ 22,982,010	(\$10,367,095)	(\$402,093)	\$74,760 \$510,500	(\$10,694,428)	\$10,588,
47	1850 1850	Line Transformers ARO	\$31,213,946 \$209,971	\$2,176,719 \$0	(\$507,755) \$0	\$ 32,882,910 \$ 209,971	(\$15,469,410) (\$141,171)	(\$569,122) (\$14,120)	\$510,590 \$0	(\$15,527,942) (\$155,291)	\$17,354, \$54,
47	1855	Services (Overhead & Underground)	\$209,971 \$22,578,084	\$330,397	(\$67,590)	\$ 22,840,891	(\$15,177,681)	(\$14,120) (\$253,461)	\$55,972	(\$15,375,170)	\$7,465,
47	1860	Meters	\$9,791,618	\$608,338	(\$129,826)	\$ 10,270,130	(\$4,223,919)	(\$600,049)	\$7,138	(\$4,816,830)	\$5,453,
47	1860	Meters (Smart Meters)	\$0			\$-	\$0			\$0	
N/A	1905	Land	\$0	\$0		\$-	\$0	\$0	\$0	\$0	
47	1908	Buildings & Fixtures	\$0 \$0	\$0 \$0			\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	
13 8	1910 1915	Leasehold Improvements Office Furniture & Equipment (10 years)	\$U \$1,585,517	\$0 \$21,397	\$0 \$0	\$ - \$ 1,606,914	(\$1,269,815)	(\$58.822)	\$0	(\$1,328,637)	\$278,3
8	1915	Office Furniture & Equipment (5 years)	\$1,505,517	ψ21,001	ŶŰ	\$ 1,000,314	\$0	(400,022)	ψυ	(#1,520,007) \$0	ψ210,
10	1920	Computer Equipment - Hardware	\$3,236,818	\$106,686	\$0	\$ 3,343,504	(\$3,004,032)	(\$146,850)	\$0	(\$3,150,882)	\$192,
45	1920	Computer EquipHardware(Post Mar. 22/04)	\$0			\$-	\$0			\$0	
45.1	1920	Computer EquipHardware(Post Mar. 19/07)	\$0			\$-	\$0			\$0	
10	1930	Transportation Equipment	\$7,597,012	\$992,128	N 1 1	\$ 8,294,899	(\$4,416,546)	(\$303,018)	\$294,241	(\$4,425,323)	\$3,869,
8	1935 1940	Stores Equipment Tools, Shop & Garage Equipment	\$63,417 \$2,823,673	\$0 \$115,500		\$ 63,417 \$ 2,939,173	(\$63,417) (\$2,383,956)	\$0 (\$75,948)	\$0 \$0	(\$63,417) (\$2,459,904)	\$479,3
8	1940	Measurement & Testing Equipment	\$359,187	\$26,250			(\$231,908)	(\$73,540) (\$28,551)	\$0	(\$260,459)	\$124,
8	1950	Power Operated Equipment	\$412,564	\$17,222	(\$39,876)	\$ 389,910	(\$129,864)	(\$37,072)	\$39,876	(\$127,060)	\$262,
8	1955	Communications Equipment	\$283,980	\$0			(\$240,125)	(\$24,453)	\$0	(\$264,578)	\$19,
8	1955	Communication Equipment (Smart Meters)	\$0		7 *		\$0	\$0	\$0	\$0	
8	1960	Miscellaneous Equipment Load Management Controls Customer	\$0	\$0	\$0	\$-	\$0	\$0	\$0	\$0	
47	1970	Premises	\$0	\$0	\$0	\$-	\$0	\$0	\$0	\$0	
47	1975	Load Management Controls Utility Premises	\$0	\$0	\$0	\$-	\$0	\$0	\$0	\$0	
47	1980	System Supervisor Equipment	\$362,898	\$447,231	\$0	\$ 810,129	(\$178,217)	(\$53,415)	\$0	(\$231,632)	\$578,
47	1985	Miscellaneous Fixed Assets	\$0			\$-	\$0			\$0	
47 47	1990 1995	Other Tangible Property Contributions & Grants	\$0 (\$22,664,002)	(\$1,235,032)	\$0	\$ - -\$ 23,899,034	\$0 \$ 5,069,941.61	\$ 540,000.00	\$	\$0 \$5,609,942	(\$18,289,
47	2440	Deferred Revenue ⁵	(\$22,004,002) \$0	(#1,200,002)	\$0	-\$ 23,099,034 \$ -	\$ 3,009,941.01	y J40,000.00	ψ -	\$5,609,942	(¢10,209,
WIP	- 10	Work in Process	\$3,014,501	\$1,507,294	(\$2,741,379)	\$ 1,780,416	\$ -	\$ -	\$-	\$0	\$1,780,4
						\$-				\$0	
		Sub-Total	\$194,919,403	\$13,298,931	(\$4,522,140)	\$ 203,696,194	(\$100,359,288)	(\$4,082,365)	\$1,539,604	(\$102,902,049)	\$100,794,
		Less Socialized Renewable Energy Generation Investments (input as negative)				s -				\$0	
		Less Other Non Rate-Regulated Utility								ψŪ	
		Assets (input as negative)				\$-				\$0	
		Total PP&E	\$194,919,403	\$13,298,931		\$ 203,696,194	(\$100,359,288)	(\$4,082,365)	\$1,539,604	(\$102,902,049)	\$100,794,
		Depreciation Expense adj. from gain or lo Total	oss on the retiremen	it of assets (pool o	of like assets), if a	pplicable ⁶		\$0 (\$4,082,365)	l I		
			-				Less: Fully Allocated I	Depreciation			
10		Transportation					Overhead Depts &		10040 0000		
8		Stores Equipment					Information Systems		(\$610,608)		

					Append			1				
				Fixed	Asset Conti	nuity Schedu	ule	1				
			Acc	ounting Standard Year	MIFRS 2017							
				Co	st				Accumulated De	preciation		
CCA Class ²	OEB Account ³	Description ³	Opening Balance	Additions ⁴	Disposals ⁶	Closing Balance		Opening Balance	Additions	Disposals ⁶	Closing Balance	Net Book Val
010.55	1609	Hydro One Gate Station	\$1,272,321	Additions \$0	S0	\$ 1,272,321		(\$340,597)	(\$50,893)	Disposais \$0	(\$391,490)	\$880,8
12	1611	Computer Software (Formally known as Account 1925)	\$1,370,625	\$62,500	\$0	\$ 1,433,125		(\$1,275,023)	(\$55,969)	\$0	(\$1,330,992)	\$102,1
CEC	1612	Land Rights (Formally known as Account		402,500	ψυ		1		(400,000)	ψų		
N/A	1805	1906) Land	\$0 \$129,852	\$0	\$0	\$ - \$ 129,852	,	\$0 \$0	\$0	\$0	\$0 \$0	\$129,8
47	1808	Buildings	\$7,445,283	\$82,000	\$0	\$ 7,527,283		(\$2,510,849)	(\$197.677)	\$0	(\$2,708,526)	\$4,818,7
13	1810	Leasehold Improvements	\$113,262	\$0	\$0	\$ 113,262		(\$64,262)	(\$2,000)	\$0	(\$66,262)	\$47,0
47	1815	Transformer Station Equipment >50 kV	\$0	\$0	\$0	\$-		\$0	\$0	\$0	\$0	
47	1820	Distribution Station Equipment <50 kV	\$8,315,333	\$0	\$0	\$ 8,315,333	3	(\$7,163,573)	(\$200,251)	\$0	(\$7,363,824)	\$951,5
47	1825	Storage Battery Equipment	\$0	\$0	\$0	\$-		\$0	\$0	\$0	\$0	
47	1830	Poles, Towers & Fixtures	\$44,121,457	\$3,787,353	(\$348,073)	\$ 47,560,737		(\$12,626,773)	(\$958,403)	\$282,904	(\$13,302,272)	\$34,258,4
47 47	1835	Overhead Conductors & Devices	\$41,785,578	\$3,317,909	(\$294,723) (\$8,835)	\$ 44,808,764 \$ 15,025,751		(\$17,589,373)	(\$532,508) (\$130,180)	\$266,012	(\$17,855,869) (\$8,182,058)	\$26,952,8
47	1840 1845	Underground Conduit Underground Conductors & Devices	\$15,657,081 \$21,282,756	\$287,505 \$872,103	(\$8,835) (\$86,656)	\$ 15,935,751 \$ 22,068,203		(\$8,059,989) (\$10,694,428)	(\$130,180) (\$424,251)	\$8,111 \$74,760	(\$8,182,058) (\$11,043,919)	\$7,753,6 \$11,024,2
47	1850	Line Transformers	\$21,282,756	\$072,103	(\$60,030) (\$507,755)	\$ 22,000,203 \$ 34,106,200		(\$15,527,942)	(\$424,251) (\$601,263)	\$74,760 \$510,590	(\$15,618,615)	\$11,024,2
47	1850	ARO	\$209,971	\$0	\$0	\$ 209,971		(\$155,291)	(\$14,120)	\$010,000	(\$169,411)	\$40,5
47	1855	Services (Overhead & Underground)	\$22,840,891	\$292,796	(\$67,590)	\$ 23,066,097		(\$15,375,170)	(\$267,429)	\$55,972	(\$15,586,627)	\$7,479,4
47	1860	Meters	\$10,270,130	\$447,424	(\$129,826)	\$ 10,587,728	3	(\$4,816,830)	(\$633,115)	\$7,138	(\$5,442,807)	\$5,144,9
47	1860	Meters (Smart Meters)	\$0			ş -		\$0			\$0	
N/A	1905	Land	\$0	\$0	\$0	ş -	4	\$0	\$0	\$0	\$0	
47	1908	Buildings & Fixtures	\$0	\$0	\$0	\$ -	41	\$0	\$0	\$0	\$0	
13	1910	Leasehold Improvements	\$0 \$1.606.914	\$0 \$58,000	\$0	\$ - \$ 1,664,914		\$0	\$0 (\$60.779)	\$0 \$0	\$0 (\$1,389,416)	\$275.4
8	1915 1915	Office Furniture & Equipment (10 years) Office Furniture & Equipment (5 years)	\$1,606,914	\$58,000	\$0	\$ 1,004,914	4	(\$1,328,637) \$0	(\$60,779)	20	(\$1,389,416) \$0	
10	1910	Computer Equipment - Hardware	\$3,343,504	\$148,500	\$0	\$ 3,492,004		(\$3,150,882)	(\$111,283)	\$0	(\$3.262.165)	\$229,8
45	1920	Computer EquipHardware(Post Mar. 22/04)		¢110,000					(\$111,200)	<u> </u>	() · · · · · · · · · · · · · · · · · · ·	
45.1	1920	Computer EquipHardware(Post Mar. 19/07)	\$0			<u>\$</u> .		\$0			\$0	
10	1930	Transportation Equipment	\$0 \$8,294,899	\$610,000	(\$267.007)	\$ - \$ 8,636,902	,	\$0 (\$4 425 323)	(\$364 753)	\$267,997	\$0 (\$4 522 070)	\$4,114,8
8	1930	Stores Equipment	\$63,417	\$010,000	(\$207,997) \$0	\$ 63,417		(\$63,417)	(\$304,733) \$0	\$207,997	(\$63,417)	\$4,114,0
8	1940	Tools, Shop & Garage Equipment	\$2,939,173	\$101,500	\$0	\$ 3,040,673		(\$2,459,904)	(\$79.546)	\$0	(\$2,539,450)	\$501,2
8	1945	Measurement & Testing Equipment	\$385,437	\$75,000	\$0	\$ 460,437		(\$260,459)	(\$29,981)	\$0	(\$290,440)	\$169,9
8	1950	Power Operated Equipment	\$389,910	\$0	\$0	\$ 389,910)	(\$127,060)	(\$38,928)	\$0	(\$165,988)	\$223,9
8	1955	Communications Equipment	\$283,980	\$0	\$0	\$ 283,980)	(\$264,578)	(\$13,954)	\$0	(\$278,532)	\$5,4
8	1955	Communication Equipment (Smart Meters)	\$0			\$-		\$0	\$0	\$0	\$0	
8	1960	Miscellaneous Equipment	\$0	\$0	\$0	ş .	4	\$0	\$0	\$0	\$0	
47	1970	Load Management Controls Customer									**	
47 47	1975	Premises	\$0	\$0	\$0	ş .		\$0	\$0	\$0	\$0	
		Load Management Controls Utility Premises	\$0	\$0	\$0	ş -		\$0	\$0	\$0	\$0	
47	1980	System Supervisor Equipment	\$810,129	\$174,430	\$0	\$ 984,559	4	(\$231,632)	(\$74,250)	\$0	(\$305,882)	\$678,6
47	1985	Miscellaneous Fixed Assets	\$0	\$0	\$0	ş .	┥┝	\$0			\$0	
47 47	1990	Other Tangible Property Contributions & Grants	\$0 (\$23,899,034)	\$0 (\$1,326,298)	\$0	\$ - -\$ 25,225,332	+	\$0	¢ 572.000.00	¢	\$0	(\$19,041,7
47	1995 2440	Deferred Revenue ⁵	(+==,===,==,==,	(\$1,320,298)	\$0	-\$ 25,225,332 \$ -	4	\$ 5,609,941.61	\$ 573,662.00	ş -	\$6,183,604	
4/ WIP	2440	Deterred Revenue" Work in Process	\$0 \$1,780,416	\$1,870,537	(\$1,478,540)	\$ - \$ 2,172,413	1	s -	\$	\$	\$0 \$0	\$2,172,4
rrd					(1 - 4 - 4	ş -		¥	•	•	\$0	
		Sub-Total	\$203,696,194	\$12,592,304	(\$3,189,995)	\$ 213,098,503	3	(\$102,902,049)	(\$4,267,871)	\$1,473,484	(\$105,696,436)	\$107,402,0
		Less Socialized Renewable Energy Generation Investments (input as negative)				s -					\$0	
		Less Other Non Rate-Regulated Utility					71					
		Assets (input as negative)				\$.	Щ				\$0	
		Total PP&E	\$203,696,194	\$12,592,304	(\$3,189,995)	\$ 213,098,503	3	(\$102,902,049)	(\$4,267,871)	\$1,473,484	(\$105,696,436)	\$107,402,0
		Depreciation Expense adj. from gain or lo Total	oss on the retiremen	t of assets (pool o	f like assets), if a	pplicable ⁶			\$0 (\$4,267,871)			
I								Lana (5.4), 19				
10		Transportation	1					Less: Fully Allocated L	pepreciation			
		Transportation Stores Equipment						Overhead Depts &		(000 0832)		
8 Stores Equipment Information Systems (\$680,632) Net Depreciation (\$3,587,239)												

ATTACHMENT 2 – B

Thunder Bay Hydro

Distribution System Plan (DSP)

Thunder Bay Hydro's Distribution System Plan (DSP) has been uploaded as a separate file.

ATTACHMENT 2 – C

Capital Expenditure Summary

Board Appendix 2-AB

File Number:	EB-2016-0105
Exhibit:	2
Tab:	
Attachment:	2-C
Page:	
Date:	09-Sep-16

Appendix 2-AB Table 2 - Capital Expenditure Summary from Chapter 5 Consolidated Distribution System Plan Filing Requirements

al) 2015						Foror	ast Period						
2015			Historical Period (previous plan ¹ & actual)										
			2016		2017	2018	2019	2020	2021				
Plan Actual	Var	Plan	Actual ²	Var	2017	2010	2013	2020	2021				
\$ '000	\$ 000 %		000	%			\$ '000						
3,812 \$2,412	-36.7%	2,795	\$2,722	-2.6%	2,662	2,422	2,432	2,445	2,505				
6,770 \$7,413	9.5%	7,090	\$7,165	1.1%	8,380	8,818	8,976	9,217	9,261				
- \$0	-	-	\$0	-	230	300	280	280	300				
1,357 \$1,345	-0.9%	2,059	\$1,906	-7.4%	1,168	1,360	946	901	969				
\$ 11,938 \$11,171	-6.4%	\$ 11,944	\$11,793	-1.3%	\$12,440	\$12,900	\$12,634	\$12,842	\$13,036				
\$ 7,229 \$7,441	2.9%	\$ 7,675	\$8,034	4.7%	\$8,026	\$8,187	\$8,350	\$8,592	\$8,842				
	\$ 000 3,812 \$2,412 6,770 \$7,413 - \$0 1,357 \$1,345 \$ 11,938 \$11,171	\$ 000 % 3,812 \$2,412 -36.7% 6,770 \$7,413 9.5% - \$0 1,357 \$1,345 -0.9% \$ 11,938 \$11,171 -6.4%	\$ 000 % \$ 3.812 \$2.412 -36.7% 2.785 6.770 \$7.413 9.5% 7.090 - \$0 - 1.357 \$1.345 -0.9% 2.059 \$ 11,938 \$11.171 -6.4% \$ 11.944	\$ 000 % \$ 000 3.812 \$2,412 >36.7% \$2,785 \$2,722 6.770 \$7,413 9.5% 7.090 \$7,713 5.00 \$0 \$0 \$1,367 1.367 \$1,345 0.9% 2,059 \$1,906 \$11,171 -6.4% \$11,944 \$11,793	\$ 100 % \$ 100 % 3.812 \$ 2.412 -36.7% 2.795 \$ 2.722 -2.6% 6.770 \$ 5.413 9.5% 7.090 \$ 7.165 1.1% - \$ 50 - - \$ 50 - 1.387 \$ 51.345 -0.9% 2.069 \$ 1.906 -7.4% \$ 11.938 \$ 111,71 -6.4% \$ 11.944 \$ 111,733 -1.3%	\$ 1000 % \$ 1000 % 3.812 \$ 2.412 -36.7% 2.705 \$ 52.722 -2.6% 2.662 6.770 \$ 57.743 9.5% 7.090 \$ 7.165 1.1% 8.380 - \$ 50 - \$ 50 - 230 1.357 \$ 51.345 -0.9% 2.059 \$ 1.906 -7.4% 1.168 \$ 11.938 \$ 11.711 -6.4% \$ 11.944 \$ \$ 11.793 -1.3% \$ \$ 12.400	\$ 000 % \$ 000 % 3.812 \$2,412 36.7% 2.765 \$2,722 -2.6% 2.662 2.422 6.770 \$7,413 9.5% 7.090 \$7,165 1.1% 8.380 8.818 6.770 \$7,413 9.5% - 50 - 2.00 300 1.367 \$1,345 0.9% 2.059 \$1,906 -7.4% 1,168 1.380 \$11,938 \$11,171 -6.4% \$11,944 \$11,733 -1.3% \$12,400 \$12,900	\$ 5000 % \$ 5000 % \$ 5000 3.812 \$ 2.412 367% \$ 2,785 \$ 2,722 2.6% 2.462 2.422 2.432 6.770 \$ 7.413 9.5% 7.090 \$ 7,165 1.1% 8.380 8.816 8.976 5.0 - \$ 50 - \$ 50 - 230 300 280 1.367 \$ 1.345 0.9% 2.059 \$ 1.906 7.4% 1.168 1.360 946 \$ 11,193 \$ 11.171 -6.4% \$ 11.1944 \$ 11.733 - 3.3% \$ 12.440 \$ 12.634	\$ 5000 % \$ 5000 % \$ 5000 3.812 \$ 52.412 -36.7% 2.785 \$ \$ \$ 2.722 -2.6% 2.462 2.442 2.442 2.442 2.442 -2.442 2.445 5.7 5				

Notes to the Table:
1. Historical "previous plant data is not required unless a plan has previously been filed. However, use the last Board-approved, at least on a Total (Capital) Expenditure basis for the last cost of service rebasing year, and the applicant should include their planned budget in each subsequence use to an unit include a interview of months of actual data included in the last year of the Historical Period (normally a bridge
2. Indicate the number of months of actual data included in the last year of the Historical Period (normally a bridge
3.

planatory Notes on Variances (complete only if applicable) tes on shifts in forecast vs. historical budgets by category	
tes on shirts in forecast vs. historical budgets by category 1 2013 Thunder Bay Hydro adopted IFRS accounting standards which led to a decrease in the extent of overheads allocated to Capital work	
1 2013 Inunder Bay Hydro adopted IFRS accounting standards which led to a decrease in the extent of overheads allocated to Capital work n increase in General Plant expenditures in 2013 due to the construction of a new Fleet Garage	
n increase in General Plant expenditures in 2013 due to the construction of a new Fleet Garage	
n increase in General Plant expenditures in 2016 due to the replacement of the Wintage SCADA system n increase in System Renewal in 2015 due to defective assets being reported in the Lines Safety Reports and Transformer and Switch replac	
n overall increase in System Renewal in 2015 due to delective assets being reported in the cines Salety Reports and Transionner and Switch replace n overall increase in System Renewal in 2017 in order to more effectively manage and proactively address sustainment levels of assets as a r	
ugh an increase in 2017 and subsequent gradual increases over the study period (2018-2021).	esuit of the ACA provided by Kinetics in 2016. This revenzed approach to the replacement of assets is being implemented
n increase in 2017 due to spending within the System Service categories to implement the 'Grid Modernization Plan.	
decline in System Access expenditures from 2012 due in part to slowed economic growth in the region"	
decline in System Access experiorates from 2012 dee in part to solved economic growth in the region	
tes on year over year Plan vs. Actual variances for Total Expenditures	
n increase in 2012 Total Expenditures was primarily due to the unexpected level of customer service requests received by Thunder Bay Hydi	0
113 variances for the Total Expenditures are considered immaterial based on the materiality threshold	
decrease in Total Expenditures in 2014 was due to the cancellation of an approved Renewable Generation project	
decrease in 2015 Total Expenditures is due to the cancellation of the proposed Event Centre	
decrease in the 2016 projected Total Expenditures is due to the removal of a New Technology Pilot from the expenditures"	
tes on Plan vs. Actual variance trends for individual expenditure categories	
In increase in 2012 System Access due to an unexpected amount of General Service requests, a decrease in 2012 System Renewal due to	
increase in 2013 System Access due to a continued demand of General Service requests and a decrease in 2013 General Plant due to decr	
n decrease in 2014 System Access due to the cancellation of Horizon Wind Project, and a decrease in 2014 System Renewal due to the can	ncellation of 10M8 Overhead project due to public pressure, a decrease in 2014 General Plant due to long lead times in the
chase of large vehciles that could only be partially recieved.	
decrease in 2015 System Access due to the cancellation of the proposed Event Centre which required the movement of a substation, an inc	
ugh the inspection and risk assessment process, a decrease in General Plant due to a reduction in costs in IT hardware purchases and the	cancellation of a new vehicle due to the deferral of a new position
decrease in General Plant in 2016 due to the removal of a New Technology Pilot from the planned expenditures"	

ATTACHMENT 2 – D

Capital Projects Table

Board Appendix 2-AA

File Number:	EB-2016-0105
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Date: 09-Sep-16

Appendix 2-AA Capital Projects Table

Projects	2012	2013	2014	2015	2016 Bridge Year	2017 Test Year
Reporting Basis						
	Actuals	Actuals	Actuals	Actuals	Budget	Forecast
SYSTEM ACCESS						
PCB Transformer Replacements (A 01)	143,287	120,061	217,974	100,942	162,598	118,655
02)	-	221,636	509,842	859,513	235,458	281,092
Customer Driven System Expansions (A 11)	91.318	197,649	83.248	181,267	175,506	209,034
Residential Service Connections (A 12)	459,350	296,842	302,465	282,378	449,520	445,213
General Service Connections (A 13)	627,181	578,080	580,813	461,209	907,343	926,898
New courthouse - Miles @ Brodie (WF0376329)	323,741	391,726				
Expansions for Residential Subdivisions (A 14)	92,348	43,936	335,496	118,498	232,955	230,530
System Relocations (A 15)	447,447	88,708	428,303	176,094	162,858	164,881
Golf Links Road Widening Stage 2 (WF0482298)			285,169	57,845		
Balmoral Ave						
Sentinel Lights (A 19)	8,924	8,226	(173)	382	(888)	
Meter Installations (A 21)	8.510	189,544	175,260	192,854	396,177	286,129
Generator Driven Expansions (A 32)	666,826	22,253				
Renewable Enabling Improvements (A 33)			11,947	(12,144)		
Event Center (A 34)			6.538	(6.563)		
Miscellaneous	196,098	158,117	101,558	140,464	(338)	-

Sub-Total System Access	\$ 2,863,931	\$ 2,153,655	\$ 2,936,881	\$ 2,412,277	\$ 2,722,077	\$ 2,662,432
SYSTEM SERVICE	+ _,,.	+ _,,	+ _,,	• _,,	• _,,•	¢ _,00_,10_
Grid Modernization (A 35)	_	_		_	_	230,375
Miscellaneous	-	-	-	-	-	- 200,010
Sub-Total System Service	\$ -	\$-	\$-	\$ -	\$ -	\$ 230,375
SYSTEM RENEWAL	•	÷	Ť	•	•	+ 200,010
Line Voltage Conversions (B 12)						
Centre-Francis	27.403					
Montreal-Mountdale	91,768					
Brock-Ford Rebuild	1,476,051					-
Georgina-Francis Conversion	940,824					-
Brown-Isabella Rebuild	1,637,599					
Churchill-Edward 25kV Area Rebuild	-	223,674	247,555			-
Ogden-McMurray Area Rebuild	1,075,188	1,624,654				-
McKenzie-Dease Area Design		0.013	171,815	204,139		
Brunswick-Legion Area Design	20,292	34,787	10.481			
Clayte-Burriss Design	00,000	69,888	1,979,501	6.727		
Huron-Otto Rebuild	49,139	196,143	1,327,820	5.443		
Dawson-Rockwood Area Rebuild	2,882	32,738		1,239,672		
Redmond-Egan Area Rebuild	6.813	56.452		,,-		
Balsam-Minot Area Rebuild	70,230	8.465	619,344	1,225,645		
Elm-Campbell Area Rebuild	4.978	62,539		, .,		
Eliott-Leslie Area Rebuild	32,210	664,836				
Durban-Brodie Area Conversion	8.541	593,882	(143)			
Mary-Heath Area Conversion/Rebuild	67,482	1,032,388				
Black Bay-Dewe Rebuild			3.648	12,700	664,656	1,174,110
Dewe-Rita Rebuild		2,439	28,025	10.211	700,195	1,489,302
Donald-Mountdale				4.882		310,256
Dacre-Leslie	1,362	27,151	24,414	586,778	1,439,532	
Bruswick-Legion				411,866		
Isabella-James				362,893	990,067	
Pole Butt and 4kV Removal	40,903	54,345	424	(449)	101,765	30,000
McPherson-Christie				22,510		
Court-VanHorne				44,184		
MacDougall-Court				61,098		789,716
Victoria /James				17,908	1,196,761	
FW TS Exit Cable Replacement				1,456		376,868
Finlayson - Brodie Conversion				15,498		893,725
Cumming - Brodie Street				32,750		580,677
25kV Pole Replacements						584,384
Engineering Design for Future Projects					142,443	189,888
Forestry for future Projects						100.000
Stations Improvements						
System Improvements (B 13)						
10M8 Reconfiguration		2.800	67.643	372,317		
U/G Installations/Replacements (B 14)	213,160					
Industrial Park - U/G Express Reinforcement			1000	280,312		
Main St Connection 10M3 to 17M1	4.823	1.165	116,412	12.629		
Small Pole Replacements (A 16)	160,400	(0)	62	130,406	379,573	342,512
Northwood - 10M9 Pole Line (WF0469253)		236,494	1,731			

Northwood - 10M9 Pole Line (WF0469253)		236,494	1.731			
2M5 Pole Line Rebuild (WF0484290)			159,795	126,926		
Main St and Hammond (WF0508762) Lane South of Arthur between Edward and Ford Reputid			116,798	198,919		
Lane South of Annur between Edward and Ford Rebuild				138,764		
Edward between Aurthur and Mary Rebuild (WF052223)				171,493		
Edward and Churchill Rebuild (WF0525234)				261,792		
Lines Safety Reports (A 17)	468,445	625,723	567,743	495,879	732,775	761,834
(A 18)	123,691	345,416	215,210	932,264	816,936	756,484
Hector Dougall Way (WF 0474031)			119.529	261880		
(WF0484290)			209,732			
Operations Safety Reports (A 22)	70.057	37				
Miscellaneous	568,886	344,417	143,199	273,402	101,765	130,000
Sub-Total System Renewal	\$ 6,664,243	\$ 5,887,628	\$ 5,994,452	\$ 7,413,468	\$ 7,164,703	\$ 8,379,756
GENERAL PLANT						
2012 Terex Digger Derrick		220,340				
2013 Material Handler		291,262				
2014 Freight liner Double Bucket			364,664			
2015 Feight Liner Double Bucket				282,464		
2016 Digger Derrick					255,160	
2016 Double Bucket					125,000	
2016 Single Bucket					190,016	
2017 Mini Bucket					135,522	
2017 Double Bucket						325,000
2017 Double Bucket (purchase began in 2016)						125,000
Fleet Garage		3,277,070			-	-
Building Improvements					131,000	
IT (Software and Hardware)	231,506		136,189	194,052	183,686	206,500
Power Operated Equipment				196,682		
Communications			160,587	158,841		101.500
Fleet - Rolling Stock	437,900	249,002	257,949	202,974	286,430	160,000
SCADA					416,699	
Miscellaneous	207,279	208,204	69,225	309,957	182,292	351,000
Sub-Total General Plant	\$ 876,685	\$ 4,245,878	\$ 988,614	\$ 1,344,970	\$ 1,905,805	\$ 1,167,500
Total	10,404,860	12,287,160	9,919,947	11,170,715	11,792,585	12,440,063
Less Renewable Generation Facility Assets and						
Other Non-Rate-Regulated Utility Assets (input as						
Total	10,404,860	12,287,160	9,919,947	11,170,715	11,792,585	12,440,063

ATTACHMENT 2 – E

Overhead Expense

Board Appendix 2-D

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Appendix 2-D Overhead Expense

Applicants are to provide a breakdown of OM&A before capitalization in the below table. OM&A before capitalization may be broken down by cost center, program, drivers or another format best suited to focus on capitalized vs. uncapitalized OM&A.

OM&A Before Capitalization	2013 Historical Year	2014 Historical Year	2015 Historical Year	2016 Bridge Year	2017 Test Year
Total OM&A Before Capitalization (B)	\$16,149,367	\$16,407,572	\$17,212,082	\$18,370,621	\$18,996,027

Applicants are to provide a breakdown of capitalized OM&A in the below table. Capitalized OM&A may be broken down using the categories listed in the table below if possible. Otherwise, applicants are to provide its own break down of capitalized OM&A.

						Directly	Explanation for
Capitalized OM&A	2013	2014	2015	2016	2017	Attributable?	Change in Overhead
	Historical Year	Historical Year	Historical Year	Bridge Year	Test Year	(Yes/No)	Capitalized
							No changes necessary
Benefits	\$112,332	\$109,853	\$135,209	\$150,034	\$170,953	Yes	on transition to MIFRS
							No changes necessary
Downtime	\$351,316	\$366,214	\$520,425	\$493,088	\$573,241	Yes	on transition to MIFRS
							No changes necessary
Material	\$75,962	\$87,911	\$97,486	\$96,642	\$100,910	Yes	on transition to MIFRS
							No changes necessary
Supervisory	\$405,268	\$477,765	\$555,176	\$548,051	\$596,441	Yes	on transition to MIFRS
							No changes necessary
Engineering	\$1,033,598	\$1,029,132	\$974,724	\$1,002,953	\$1,062,413	Yes	on transition to MIFRS
							No changes necessary
Trucking	\$938,008	\$514,180	\$685,057	\$665,470	\$762,197	Yes	on transition to MIFRS
Total Capitalized OM&A (A)	\$2,916,483	\$2,585,055	\$2,968,078	\$2,956,238	\$3,266,155		
% of Capitalized OM&A (=A/B)	18.1%	15.8%	17.2%	16.1%	17.2%		

ATTACHMENT 2 – F

Renewable Generation Connection

Investment Summary

Board Appendix 2-FA

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Appendix 2-FA

Renewable Generation Connection Investment Summary (past investments or over the future rate setting period)

Enter the details of the Renewable Generation Connection projects as described in the appropriate section of the Filing Requirements.

All costs entered on this page will be transferred to the appropriate cells in the appendices that follow.

For Part A, Renewable Enabling Improvements (REI), these amounts will be transferred to Appendix 2 - FB

For Part B, Expansions, these amounts will be transferred to Appendix 2 - FC

If there are more than five projects proposed to be in-service in a certain year, please amend the tables below and ensure that the formulae for the Total Amounts in any given rate year are updated. Based on the current methodology and allocation, amounts allocated represent 6% for REI Connection Investments and 17% for Expansion Investments. (EB-2009-0349, 6-10-2010, p. 15, note

There are two scenarios described below. Separate sets of spreadsheets (2-FA, 2-FB, 2-FC) should be submitted for each scenario as required.

Scenario 1: Past Investments with No Recovery. The distributor has made investments in the past (during the IRM Years), but has not received approval for these projects and therefore did not receive revenue from the IESO under Regulation 330/09 and did not receive ratepayer revenue for the direct benefit portion of the investment.

The WCA percentage, debt percentages, interest rates, kWh, tax rates, amortization period, CCA Class and percentage should correspond to the distributor's last Cost of Service approval. The Direct Benefit portion of the calculated Revenue Requirement for each year should be summed and can be applied for recovery from the distributor's ratepayers through a rate rider. The Provincial Recovery portion of the calculated Revenue Requirement for each year should be summed and can be applied for recovery from the ISO through a separate order.

Scenario 2: Investments in the Test Year and Beyond. Distributor plans to make investments in 2017 and/or beyond. These investments should be added to 2-FA in the appropriate year. The WCA percentage, debt percentages, interest rates, kWh, tax rates, amortization period, CCA Class and percentage should correspond to the distributor's current application.

Part A					Test Year				
REI Investments (Direct Benefit at 6%)	2013	2014	2015	2016	2017	2018	2019	2020	2021
Project 1									
Name: REI Connection Project									
Capital Costs	\$61,636	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Start-Up)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Ongoing)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project 2									
Name: REI Connection Project									
Capital Costs	\$583,185	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Start-Up)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Ongoing)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project 3									
Name: REI Connection Project									
Capital Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Start-Up)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Ongoing)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project 4									
Name: REI Connection Project									
Capital Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Start-Up)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Ongoing)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project 5									
Name: REI Connection Project									
Capital Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Start-Up)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OM&A (Ongoing)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	• • • • • • •					•	•		•
Total Capital Costs	\$ 644,821		\$ -	\$ -	\$-	\$-	\$-	\$ -	\$ -
Total OM&A (Start-Up)		\$ -	\$ -	\$-	\$-	\$-	\$-	\$-	\$ -
Total OM&A (Ongoing)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -	\$-

ATTACHMENT 2 – G

Renewable Generation Connection

Direct Benefits

Board Appendix 2-FB

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al Amount: Renewable Enabling Improvement Investments

This table will calculate the distribution/point/call shares of the investments entred in Part A of Appendix 2FA. Error values in present shalls click (PCA) percentage, state percentage, interest rates, TAN (No. 1996), and entresting and percentage, the appendix and appendix and appendix and appendix and appendix and appendix and appendix CCA Calculate and percentage, the appendix append

able Generation Co

Ca

Appendix 2-FB

Rate Ribers are not calculated for the Test Year as these a	assets and costs are aready in the distributor's t	sta basenevense requirement.							
Г	2013	2014	2015	2016	2017 Test Year	2018	2019	2020	2021
-	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Denefit Provincial	Direct Benefit Provincial
Net Fixed Assets (average) 2 hommental OMBA (or-going, NA for Provincial Recovery) hommental OMBA (star-up, applicable for Provincial Recovery) WCA Rate Base	Total 6% 94% \$ 315,862 \$ 18,868 \$ 287,005 \$ \$ 0 \$. \$. \$ \$ 0 \$. \$. \$ \$ 0 \$. \$. \$ \$ 0 \$. \$. \$ \$ 10,858 \$ 297,005 \$. \$	619,028 \$ 37,142 \$ 581,886 \$ \$0 \$ ·	fotal 6% 94% 502,225 325,504 5257,641 5 50 5 - - 50 5 - - 50 5 - - 50 5 - - 50 5 - - 50 5 - - 50 - 5 - 5 - 5 - 5 325,504 5257,641	Total 6% 94% 567,442 5 533,266 5 50 5 - - 50 5 - - 50 5 - - 50 5 - - 50 5 - 5 5 - 5 - 5 34,047 \$ 533,206	Total 6% 94% 5 541,620 2 489 5 500,151 5 50 5 - 5 -	Total 6% 94% 515,627 S 0,651 644,005 5 50 S . 5 5 50 S 50 S 50 S .	Total 6% 94% 400,064 \$ 20,454 \$ 460,660 50 \$ - \$ - \$0 \$ - \$ - \$0 \$ - \$ - \$0 \$ - \$ - \$1 \$ 29,454 \$ 460,660	Total 6% 94% \$ 466,427 \$ 27,856 \$ 406,415 \$0 \$ - \$ - \$0 \$ - \$ - \$0 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Total 6% 94% 430,478 \$ 26,203 \$ 412,170 50 \$ 26,203 \$ 412,170 50 \$ \$ \$ \$ 50 \$ \$ \$ \$ 50 \$ \$ \$ \$ 50 \$ \$ \$ \$ 50 \$ \$ \$ \$ 50 \$ \$ \$ \$ 5 \$ \$ \$ \$ 5 \$ \$ \$ \$ \$ \$
Deemed ST Debt 4% Deemed LT Debt 50% Deemed Equity 40%	\$ 758 \$ 11,880 \$ 10,616 \$ 166,323 \$ 7,583 \$ 110,802	\$ 1,465 \$ 23,275 \$ 20,759 \$ 325,856 \$ 14,857 \$ 232,755	\$ 1,424 \$ 22,306 \$ 19,923 \$ 312,279 \$ 14,238 \$ 223,056	\$ 1,362 \$ 21,336 \$ 13,066 \$ 296,702 \$ 13,619 \$ 213,356	\$ 1,200 \$ 20,266 \$ 18,199 \$ 285,124 \$ 13,000 \$ 203,660	\$ 1,238 \$ 19,396 \$ 17,333 \$ 271,547 \$ 12,381 \$ 193,962	\$ 1,176 \$ 18,426 \$ 16,466 \$ 257,970 \$ 11,762 \$ 194,254	\$ 1,114 \$ 17,457 \$ 15,600 \$ 244,392 \$ 11,143 \$ 174,505	\$ 1,052 \$ 16,487 \$ 14,733 \$ 230,815 \$ 10,523 \$ 164,868
5T Internat LT Internat ROE Cost of Capital Total	\$ 16 \$ 246 \$ 162 \$ 2,545 \$ 531 \$ 0,366 \$ 709 \$ 11,637	\$ 31 \$ 482 \$ 218 \$ 4,965 <u>\$ 1,040 \$ 16,220</u> <u>\$ 1,389 \$ 21,700</u>	\$ 29 \$ 462 \$ 205 \$ 4,778 \$ 967 \$ 15,614 \$ 1,231 \$ 23,854	\$ 28 \$ 442 \$ 292 \$ 4,570 <u>\$ 653 \$ 14,925</u> <u>\$ 1,273 \$ 18,947</u>	\$ 27 \$ 422 \$ 278 \$ 4,362 <u>\$ 910 \$ 14,256</u> <u>\$ 1,215 \$ 19,040</u>	\$ 26 \$ 402 \$ 265 \$ 4,155 <u>\$ 867 \$ 13,577</u> <u>\$ 1,157 \$ 18,134</u>	\$ 24 \$ 381 \$ 252 \$ 3,947 <u>\$ 823 \$ 12,898</u> <u>\$ 1,100 \$ 17,227</u>	\$ 23 \$ 361 \$ 239 \$ 3,739 \$ 780 \$ 12,230 \$ 1,942 \$ 16,320	\$ 22 \$ 341 \$ 225 \$ 3,531 <u>\$ 727 \$ 11,541</u> \$ 994 \$ 15,413
OMBA Amontization : Grossed-up PEx	\$ 12,896 \$ 774 \$ 12,123 \$ \$ 12,896 \$ 774 \$ 12,123 \$ \$ 88 \$ 1,372	\$ - \$ - - \$ - \$ - \$ \$ - \$ - \$	\$ - \$ - - \$ - \$ - \$ \$ - \$ - \$	\$ - \$ - - \$ - \$ - 5 - \$ - 5	\$ - \$ - \$ - \$ - \$ - \$ \$ - \$ - \$	\$ - \$ - 25,703 \$ 1,548 \$ 24,245 \$ \$ - \$ -	\$ · \$ · 25,793 \$ 1,548 \$ 24,245 \$ · \$ ·	\$ · \$ · \$ 25,780 \$ 1,540 \$ 24,245 \$ \$ · \$ ·	\$ · \$ · 25,783 \$ 1,548 \$ 24,245 \$ · \$ ·
Revenue Requirement	\$ 1,225 \$ 21,857	\$ 1,389 \$ 21,760	\$ 1,221 \$ 20,854	\$ 1,273 \$ 19,947	\$ 1,215 \$ 19,040	\$ 2,705 \$ 42,379	\$ 2,647 \$ 41,472	\$ 2,589 \$ 40,565	\$ 2,521 \$ 20,629
Provincial Rate Protection	\$ 21,857	\$ 21,760	\$ 20,854	\$ 19,947	\$ 19,040	\$ 42,379	\$ 41,472	\$ 40,565	\$ 30,629
Monthly Amount Paid by IESO	\$ 1,821	\$ 1,813	\$ 5,738	\$ 1,662	\$ 1,587	\$ 3,532	\$ 3,455	\$ 3,380	\$ 3,305
Note 1: The difference between the actual costs of approved eligit regulatory accounting guidance regarding a variance account eithe Note 2: For the 2016 Test Year, Costs and Revenues of the Direc	er in an individual proceeding or on a generic basis.		rolde						
PILs Calculation	2013	2014	2015	2016	2017 Test Year	2018	2019	2020	2021
Income Tax	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial	Direct Benefit Provincial Total	Direct Benefit Provincial Total
Net Income - ROE on Rate Base Amortization (I/N DB and 94% P) CCA (I/N DB and 94% P)	\$ 531 \$ 0,316 \$ 774 \$ 12,123 -\$ 1,548 \$ 24,245	\$ 1,040 \$ 16,220 \$ 5 5 \$ 2,971 \$ 46,551	\$ 997 \$ 15,014 \$. \$. <u>\$ 2,734 \$ 42,827</u>	\$ 953 \$ 14,935 \$ - \$ - -\$ 2,515 \$ 39,401	\$ 910 \$ 14,256 \$ 5 5 \$ 2,214 \$ 36,249	\$ 867 \$ 13,577 \$ 1,548 \$ 24,245 \$ 2,129 \$ 23,349	\$ 823 \$ 12,898 \$ 1,548 \$ 24,245 \$ 1,958 \$ 20,681	\$ 780 \$ 12,220 \$ 1,540 \$ 24,245 -\$ 1,802 -\$ 28,225	\$ 737 \$ 11,541 \$ 1,548 \$ 24,245 -\$ 1,658 -\$ 25,968
Taxable income	\$ 243 \$ 3,807	-\$ 1,921 -\$ 30,258	-\$ 1,737 -\$ 27,213	-\$ 1,562 -\$ 24,466	-\$ 1,404 -\$ 21,992	\$ 206 \$ 4,474	\$ 413 \$ 6,463	\$ 526 \$ 0,239	\$ 627 \$ 9,818
Tax Rate (to be entered)	26.50% 26.50%								
Income Taxes Payable Gross Up	-5 64.39 5 1,008.72	\$ 5	\$. \$.	\$ \$	\$. \$.	5 . 5 .	<u>\$ · \$ ·</u>	<u>\$ · \$ ·</u>	<u>s · s ·</u>
income Op and States Payable Grossed Up PILs	-5 87.60 5 1,372.41 -5 88 5 1,372	<u>\$ - \$ -</u> \$ - \$ -	<u>\$ - 5</u> \$ - 5	<u>\$ - 5 -</u> \$ - 8 -	<u>\$ - \$ -</u> \$ - \$ -	<u>\$ - \$ -</u> \$ - \$ -	<u>\$ - 5 -</u> <u>\$ - 5 -</u>	<u>\$ - \$ -</u> \$ - \$ -	<u>\$ - \$ -</u> \$ - \$ -

ATTACHMENT 2 – H

Renewable Generation Connection

Direct Benefits, Expansions

Board Appendix 2-FC



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Calc ulation of Rene Appendix 2-FC n Direct Benefits/Provi

cial Am

unt: Renewable Expansion Invest

	2013	2014 20	2015 2016	2017 Test Year 20	2212	2020	2021
	Direct Benefit Provincial Total 17% 82% T		ct Benefit Provincial Direct Benefit Provincia 17% 82% Total 17% 82%			Direct Benefit Provincial Total 17% 82%	Direct Denefit Provincial
Not Fixed Assets (average)	5 - 5 - 5 - 5		- 5 - 5 - 5 - 5		- 5 - 5 - 5 - 5 -	\$ - \$ - \$ - 5	
Incremental OM&A (on-going, N/A for Provincial Recovery) Incremental OM&A (start-up, applicable for Provincial Recovery)					- 50 5 - - 5 - 50 5 - 5 -		\$0 \$ - \$0 \$ - \$ -
WCA 12%	<u> </u>	<u>+ + + +</u> + +		- + + +	<u> </u>		<u> </u>
Deemed ST Debt 4%	\$. \$.			s . s			\$ - \$ -
Deemed LT Debt 50% Deemed Equity 40%	s · s · s · s ·		- 5 - 5 - 5 - 5		· · · · · · · · · · · · · · · · · · ·		5 - 5
5T Internal 2.07%	5.5.	s · s · s		\$. \$. \$		\$. \$.	5.5.
LT interest 1.53% ROE 7.00%	5 - 5 -	\$ - \$ - \$		\$ - \$ - \$ \$ - \$ - \$		\$ - \$ -	\$ · \$ · \$ · \$ ·
Cost of Capital Total	\$ \$	<u>\$ · \$ · </u>	· \$ · \$ · \$ ·	<u> </u>	· \$ · \$ · \$ ·	3 . 5 .	\$ \$
OM&A Amonization				s . s . s . s			
Grossed-up PEa	* * * * * * *	· · · · · · · · · · · · · · · · · · ·				\$. \$	· · · · · · · ·
Revenue Requirement	\$. \$.	s · s ·	· \$ · \$	\$ - \$ - \$	· \$ · \$ · \$ ·	\$ \$.	\$. \$.
Provincial Rate Protection	<u>s</u> .	<u>s</u> .	<u>s .</u> <u>s .</u>	<u> </u>	<u>s</u> . <u>s</u> .	<u>s</u>	<u>s -</u>
Monthly Amount Paid by ESO	5 -	\$ -	<u>s -</u>	<u>s</u> .	<u>\$</u> · <u>\$</u> ·	<u>s</u> .	\$ -
Note 1: The difference between the actual costs of approach eligible investments and revenue re- regulatory accounting guidence regarding a variance account either in an individual proceeding or Note 2: For the 2010 Test Year, Costs and Revenues of the Deci Bennelli are to be included in th	on a generic basis.	ccount. The Board may provide					
PILs Calculation							
Income Tax	2013 Direct Benefit Provincial	2014 Direct Benefit Provincial Direct	2015 2014 Int Benefit Provincial Direct Benefit Provincia	2017 Teat Year Direct Benefit Provincial Direct B	2018 2019 enefit Provincial Direct Benefit Provincial	2020 Direct Benefit Provincial	2021 Direct Benefit Provincial
Net Income - ROE on Rate Base	5.5.	5.5.5			Total	Total S - S -	Total 5 - 5 -
Amortization (17% DB and 83% P) CCA (17% DB and 83% P)	\$. \$. • . • .	\$. \$. \$				ş - ş	\$. \$.
Taxable income	3 3 3					\$ \$ \$	\$ \$
Tax Rate (to be entered)							
Income Taxes Payable	\$ \$	3 - 5 - 3	· \$ · \$	5 - 5 - 5	· \$ · \$ · \$ ·	5 5	5 . 5 .
Gross Up Income Taxes Payable	5 . 5 .	<u>s · s · </u> <u>s</u>		<u> </u>		<u>s s .</u>	5 . 5 .
Ground Up PILs	5 × 5 ×	3 + 3 + 3	- <u>\$</u> - <u>\$</u> - <u>\$</u>	<u> </u>	<u> </u>	3 · · · · · ·	3 · · · · · ·

ATTACHMENT 2 – I

Service Reliability Indicators

Board Appendix 2-G

EB-2016-0105	
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Appendix 2-G Service Reliability and Quality Indicators 2011 - 2015

Service Reliability

												Not yet re	eportable		
Index	Including outages caused by loss of supply Excluding outages caused by loss of supply								Exclud	ing Major	Events				
muex	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
SAIDI	2.94	2.79	1.29	1.04	2.15	2.60	2.77	1.28	1.03	1.92					
SAIFI	4.56	3.80	3.12	2.14	2.94	3.68	3.65	3.12	2.02	2.68					

5 Year Historical Average

SAIDI	2.042	1.920
SAIFI	3.311	3.030

SAIDI = System Average Interruption Duration Index

SAIFI = System Average Interruption Frequency Index

Service Quality

Indicator	OEB Minimum Standard	2011	2012	2013	2014	2015
Low Voltage Connections	90.0%	98.30%	99.80%	99.10%	99.80%	100.00%
High Voltage Connections	90.0%	100.00%	100.00%	100.00%	100.00%	100.00%
Telephone Accessibility	65.0%	92.70%	91.80%	90.10%	91.80%	87.10%
Appointments Met	90.0%	99.10%	91.90%	99.60%	97.80%	100.00%
Written Response to Enquires	80.0%	97.80%	97.30%	97.40%	99.60%	96.90%
Emergency Urban Response	80.0%	96.70%	96.50%	93.50%	97.60%	92.20%
Emergency Rural Response	80.0%	93.90%	100.00%	100.00%	100.00%	97.20%
Telephone Call Abandon Rate	10.0%	0.70%	1.00%	0.90%	0.70%	1.30%
Appointment Scheduling	90.0%	99.10%	91.90%	99.60%	97.80%	98.80%
Rescheduling a Missed Appointment	100.0%	100.00%	100.00%	100.00%	100.00%	100.00%
Reconnection Performance Standard	85.0%	0.00%	100.00%	100.00%	100.00%	100.00%