EB-2016-0105

Thunder Bay Hydro Electricity Distribution Inc. Application for electricity distribution rates beginning May 1, 2017

VULNERABLE ENERGY CONSUMERS COALITION

("VECC")
OM&A **PANEL**

June 29, 2017

TAB 1

4.2 SUMMARY AND COST DRIVER

4.2.1 SUMMARY OF RECOVERABLE OM&A EXPENSES

Thunder Bay Hydro follows the Board's Accounting Procedures Handbook ("APH") in distinguishing work performed between operations and maintenance. A Summary of Thunder Bay Hydro's OM&A expenses (5005- 5695, 6110, 6205), including payments in lieu of property taxes and LEAP, for the 2013 Board Approved, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and 2017 Test Year is provided in Table 4-6: Summary of Recoverable OM&A Expenses below, which is consistent with the Boards' Appendix 2-JA. A copy of the Board's Appendix 2-JA is also included in Attachment 4-A to this Exhibit. Thunder Bay Hydro is proposing to receive the 2017 Test Year costs through distribution rates for the 2017 Test Year.

TABLE 4-6: SUMMARY OF RECOVERABLE OM&A EXPENSES

	Last Rebasing Year (2013 Board-Approved)	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year
Reporting Basis						
Operations	$3,495,297	$3,356,496	$3,166,762	$3,167,155	$3,400,584	$3,322,661
Maintenance	$3,780,833	$3,446,710	$4,149,144	$4,274,077	$4,633,065	$4,703,516
SubTotal	**$ 7,276,131**	**$ 6,803,206**	**$ 7,315,906**	**$ 7,441,232**	**$ 8,033,649**	**$ 8,026,177**
%Change (year over year)			7.5%	1.7%	8.0%	-0.1%
%Change (Test Year vs Last Rebasing Year - Actual)						18.0%
Billing and Collecting	$2,116,128	$1,900,983	$1,883,864	$2,032,711	$2,000,585	$2,251,439
Community Relations	$253,133	$189,349	$205,756	$205,161	$209,547	$222,078
Administrative and General	$4,654,608	$4,339,346	$4,416,991	$4,564,900	$5,170,603	$5,230,177
SubTotal	**$ 7,023,869**	**$ 6,429,678**	**$ 6,506,611**	**$ 6,802,772**	**$ 7,380,734**	**$ 7,703,695**
%Change (year over year)			1.2%	4.6%	8.5%	4.4%
%Change (Test Year vs Last Rebasing Year - Actual)						19.8%
Total	**$ 14,300,000**	**$ 13,232,884**	**$ 13,822,518**	**$ 14,244,004**	**$ 15,414,383**	**$ 15,729,872**
%Change (year over year)			4.5%	3.0%	8.2%	2.0%

	Last Rebasing Year (2013 Board-Approved)	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year
Operations	$3,495,297	$3,356,496	$3,166,762	$3,167,155	$3,400,584	$3,322,661
Maintenance	$3,780,833	$3,446,710	$4,149,144	$4,274,077	$4,633,065	$4,703,516
Billing and Collecting	$2,116,128	$1,900,983	$1,883,864	$2,032,711	$2,000,585	$2,251,439
Community Relations	$253,133	$189,349	$205,756	$205,161	$209,547	$222,078
Administrative and General	$4,654,608	$4,339,346	$4,416,991	$4,564,900	$5,170,603	$5,230,177
Total	**$ 14,300,000**	**$ 13,232,884**	**$ 13,822,518**	**$ 14,244,004**	**$ 15,414,383**	**$ 15,729,872**
%Change (year over year)			4.5%	3.0%	8.2%	2.0%

	Last Rebasing Year (2013 Board-Approved)	Last Rebasing Year (2013 Actuals)	Variance 2013 BA – 2013 Actuals	2014 Actuals	Variance 2014 Actuals vs. 2013 Actuals	2015 Actuals	Variance 2015 Actuals vs. 2014 Actuals	2016 Bridge Year	Variance 2016 Bridge vs. 2015 Actuals	2017 Test Year	Variance 2017 Test vs. 2016 Bridge
Operations	$3,495,297	$3,356,496	$138,801	$3,166,762	($189,734)	$3,167,155	$393	$3,400,584	$233,429	$3,322,661	($77,923)
Maintenance	$3,780,833	$3,446,710	$334,123	$4,149,144	$702,434	$4,274,077	$124,933	$4,633,065	$358,987	$4,703,516	$70,451
Billing and Collecting	$2,116,128	$1,900,983	$215,146	$1,883,864	($17,119)	$2,032,711	$148,847	$2,000,585	($32,126)	$2,251,439	$250,854
Community Relations	$253,133	$189,349	$63,784	$205,756	$16,407	$205,161	($596)	$209,547	$4,386	$222,078	$12,531
Administrative and General	$4,654,608	$4,339,346	$315,262	$4,416,991	$77,644	$4,564,900	$147,909	$5,170,603	$605,703	$5,230,177	$59,575
Total OM&A Expenses	$14,300,000	$13,232,884	$1,067,116	$13,822,518	$589,634	$14,244,004	$421,486	$15,414,383	$1,170,379	$15,729,872	$315,489
Adjustments for Total non-recoverable items (from Appendices 2-JA and 2-JB)											
Total Recoverable OM&A Expenses	$14,300,000	$13,232,884	$1,067,116	$13,822,518	$589,634	$14,244,004	$421,486	$15,414,383	$1,170,379	$15,729,872	$315,489
Variance from previous year				$589,634		$421,486		$1,170,379		$315,489	
Percent change (year over year)				4%		3%		8%		2%	
Percent Change: Test year vs. Most Current Actual						10.43%					
Simple average of %variance for all years						18.87%					4%
Compound Annual Growth Rate for all years											3.5%
Compound Growth Rate (2015 Actuals vs. 2013 Actuals)						2.48%					

4.2.2 COST DRIVER TABLES

Consistent with the Board's Appendix 2-JB, Table 4-7 below provides a list of the cost drivers that affected year over year OM&A spending or, where the cost driver is common or recurring, expenditures

4.0-SEC-25

Ref: Exhibit Four, page 14

[4, p. 14] In 2013 and 2014 the Applicant had $28.8 million included in rates for OM&A, but only spent $27.1 million. Please advise how the Applicant used the remaining $1.7 million.

Thunder Bay Hydro Response:

Board approved OM&A costs in 2013 were $14.3M, so the remaining differential would be $1.5M. Further; as noted on page 14, $104,930 of affiliated labour and benefit costs included in the $14.3M should be removed to be consistent with the 2013 and 2014 actual OM&A cost presentation. Additionally $70K of the Administrative expenses (IT cost allocations) should be reclassified to 4220 to be consistent which brings the remaining to $1.2M. The funds remained in working capital and long-term financing was deferred.

EB-2012-0167

IN THE MATTER OF the *Ontario Energy Board Act*, *1998*, S.O. 1998, c.15, (Schedule B);

AND IN THE MATTER OF an application by Thunder Bay Hydro Electricity Distribution Inc. for an order approving just and reasonable rates and other charges for electricity distribution to be effective May 1, 2013.

THUNDER BAY HYDRO ELECTRICITY DISTRIBUTION INC. ("THUNDER BAY")

SETTLEMENT AGREEMENT

FILED: APRIL 16, 2013

4. OPERATING COSTS

4.1 Is the overall OM&A forecast for the test year appropriate?

Status: **Complete Settlement**

Supporting Parties: Thunder Bay, Energy Probe, SEC, VECC, AMPCO

Evidence: Application: Exhibit 4, Tab 1&2, Schedule 1-4
Board Staff IR# 18, 19, 20, 21, 22, 24, 25, 26 Supplemental IR#55s, 56s
AMPCO IR#9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 Supplemental IR#36s, 37s
Energy Probe IR#12, 13 Supplemental IR#28s, 29s
SEC IR#7, 8, 9, 10, 11, 12, 13, 14 Supplemental IR#19s
VECC IR#19, 20, 21, 22, 23, 24, 25 Supplemental IR#55s, 56s

For the purposes of settlement, the Parties agree the 2013 OM&A for the Test Year should be $14,300,000 (MCGAAP), a decrease of $382,415 from the $14,682,415 in the Application Filing. The Parties rely on Thunder Bay's view that it can safely and reliably operate the distribution system based on the total OM&A budget proposed.

Thunder Bay has provided, in Settlement Table #8: OM&A Expense Budget below, a revised OM&A budget based on this proposed total amount. The breakdown of the budget into categories is not intended by the Parties to be in any way a deviation from the normal rule that, once the budget is established, it is up to management to determine through the year how best to spend that budget given the actual circumstances and priorities of the company throughout the test year.

Settlement Table #8: OM&A Expense Budget

	COS Application Filing	Supplemental Interrogatory Adjustments	Supplemental Interrogatory Response	Settlement Adjustments	Settlement Agreement
Operations	$ 3,559,704	$ 25,000	$ 3,584,704		$ 3,584,704
Maintenance	$ 3,978,898	$ (25,372)	$ 3,953,526		$ 3,953,526
Billing & Collecting	$ 2,134,694	$ -	$ 2,134,694		$ 2,134,694
Community Relations	$ 141,862	$ -	$ 141,862		$ 141,862
Administrative and General	$ 4,867,257	$ 5,249	$ 4,872,506		$ 4,872,506
Settlement Agreement Reduction**				$ (387,292)	$ (387,292)
Total	$ 14,682,415	$ 4,877	$ 14,687,292	$ (387,292)	$ 14,300,000

**Thunder Bay Hydro has not yet determined where the reductions will be achieved

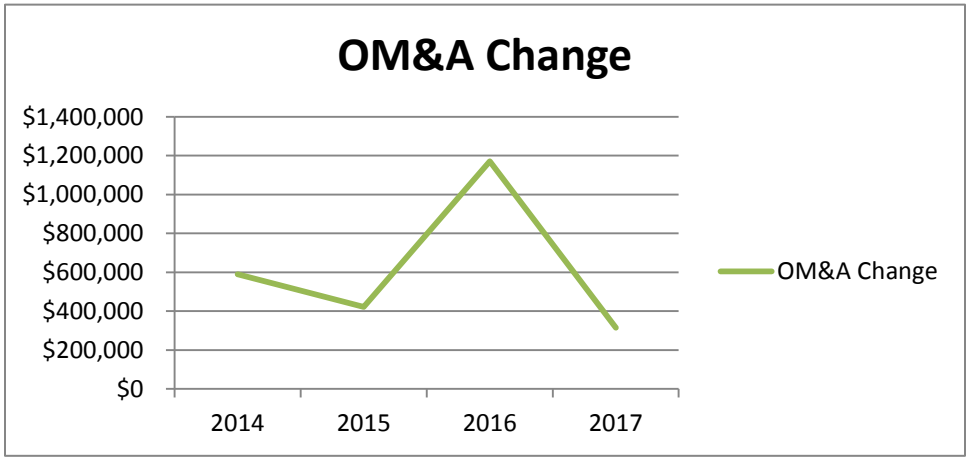
TAB 2

TABLE 4-1: SUMMARY OF OM&A EXPENSES – 2013 TO 2017 TEST YEAR

Line No.		Last Rebasing Year (2013 Board-Approved)	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year
1							
2	Operations	$3,495,297	$3,356,496	$3,166,762	$3,167,155	$3,400,584	$3,322,661
3	Maintenance	$3,780,833	$3,446,710	$4,149,144	$4,274,077	$4,633,065	$4,703,516
4	Billing and Collecting	$2,116,128	$1,900,983	$1,883,864	$2,032,711	$2,000,585	$2,251,439
5	Community Relations	$253,133	$189,349	$205,756	$205,161	$209,547	$222,078
6	Administrative and General	$4,654,608	$4,339,346	$4,416,991	$4,564,900	$5,170,603	$5,230,177
7	**Total**	**$ 14,300,000**	**$ 13,232,884**	**$ 13,822,518**	**$ 14,244,004**	**$ 15,414,383**	**$ 15,729,872**
8	%Change (year over year)			**4.46%**	**3.05%**	**8.22%**	**2.05%**

Table 4-1 annual change is detailed in Table 4-2 below.

TABLE 4-2: OM&A ANNUAL CHANGE 2014-2017 TEST YEAR



The chart in Table 4-2 above indicates that the 2016 Bridge Year is taking a steep incline and 2017 Test Year dropping back down to a more modest increase. The 2016 Bridge Year is a higher than normal year as it includes; some "one-time" costs that will not be on-going such as $168,000 for professional fees related to the 2017 COS application, $50,000 estimated professional fees with respect to transferring property titles, $50,000 for renovations to the Operations/Service Centre to improve workflow efficiencies, $118,000 for Operations/Service Centre building repairs, and $40,000 training related to the SCADA upgrade. Additionally, the 2016 Bridge Year has unavoidable cost increases including $65,000 for the transition to residential monthly billing (Thunder Bay Hydro deferred this transition to the point that we would ensure compliance with the OEB directive while minimizing costs to the customer), and approximately $60,000 as Thunder Bay Hydro commences the smart meter sampling program with the objective of renewing the seal dates (Thunder Bay Hydro smart meters are approaching the Measurement Canada 10 year meter seal expiry date). The 2016 Bridge Year includes costs that do not occur annually such as $116,000 for fire retardant clothing, and $12,000 for collective bargaining. Finally,

there is approximately $80,000 for complement increases (business decision by Thunder Bay Hydro due to workload issues and succession planning). Having said such, the projections are done very early in the year and as such, conservatism does impact some of the expenses, particularly the budgeting for storm maintenance activity and potential profession fees for unforeseen HR and staffing issues. Additionally, Thunder Bay Hydro had used 2.5% for wage rate increase (see Section 4.4.1 of this Exhibit) versus the ratified 2% increase. At the time of writing, it would appear as though Thunder Bay Hydro's storm activity and HR issue costs may be over estimated by approximately $140,000; however, no adjustment has been to update projections (they were a best estimate at a point in time). To conclude, all of the foregoing costs, with the possible exception of approximately $140,000, will occur in 2016 and cannot be moved to other years to smooth out the impact.

Since Last Rebasing in 2013, Thunder Bay Hydro's OM&A costs have increased $1,429,872. This represents a total percent increase of 10% over this period or a compound annual average increase of 1.92%. OM&A costs per customer and FTE can be found in Table 4-8 below in Section 4.2.3 of this Exhibit. OM&A cost per customer for the 2017 Test Year is $311 which is a $24.01 increase from Thunder Bay Hydro's Last Rebasing – 2013 Board Approved cost per customer of $287. This is an 8.38% increase during this period. Thunder Bay Hydro's OM&A cost per FTE for the 2017 Test Year is $114,602 which is an increase of $14,798 or 14.83% from the 2013 Board Approved cost of $99,805. As noted in Section 1.3.3 in Exhibit 1 which is defined as having actual cost within +/- 10% of predicted costs. Thunder Bay Hydro will remain in Cohort Group III with an efficiency ranking of 0.3%.

The significant factors driving OM&A increase in Thunder Bay Hydro's costs include increases in staff compensation related to negotiated and awarded inflationary increases; staff complement increases to accommodate increased workloads; mandated initiatives including Ontario One Call, time of Use meter sampling; transition to monthly residential billing; increased customer engagement activities related to ESA and OEB RRFE requirements; and maintenance programs, such as porcelain insulator replacements and increased tree trimming, designed to maintain/increase distribution system reliability.

Table 4.3 below provides a summary of the cost drivers from Thunder Bay Hydro's Last Rebasing -2013 Board Approved costs to the 2017 Test Year costs:

TAB 3

TABLE 4-9: OM&A PROGRAM TABLE

Programs	Last Rebasing Year (2013 Board-Approved)	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year	Variance (Test Year vs. 2015 Actuals)	Variance (Test Year vs. Last Rebasing Year (2013 Board-
Reporting Basis								
Operations								
Meter Operations	$249,368	$167,451	$165,756	$176,873	$231,403	$243,015	$66,142	($6,353)
System Control Operations	$858,095	$848,730	$912,876	$944,180	$1,028,685	$1,051,541	$107,362	$193,446
Overhead\Underground Operations	$1,471,964	$1,367,269	$1,274,641	$1,185,476	$1,270,056	$1,206,541	$21,065	($265,423)
Operations Supervisory	$466,723	$378,269	$283,074	$344,097	$379,495	$374,781	$30,684	($91,942)
Station Operations	$449,147	$594,777	$530,416	$516,529	$490,945	$446,783	($69,746)	($2,364)
Sub-Total	$3,495,297	$3,356,496	$3,166,762	$3,167,155	$3,400,584	$3,322,661	$155,506	($172,636)
Maintenance								
Meter Maintenance	$0	$42,818	$99,931	$75,697	$56,838	$45,036	($30,661)	$45,036
Maintenance Supervisory	$898,723	$743,190	$952,437	$1,066,445	$1,229,061	$1,153,888	$87,443	$255,165
Overhead\Underground Maintenance	$1,816,396	$1,719,788	$2,148,335	$2,168,277	$2,228,115	$2,221,864	$53,587	$405,468
Station Maintenance	$249,200	$112,925	$138,701	$127,196	$286,452	$279,139	$151,943	$29,939
Transformer Maintenance	$126,630	$143,114	$96,855	$72,267	$116,249	$115,352	$43,085	($11,278)
Tree Trimming	$689,884	$684,873	$712,884	$764,196	$716,350	$888,237	$124,041	$198,353
Sub-Total	$3,780,833	$3,446,710	$4,149,144	$4,274,077	$4,633,065	$4,703,516	$429,439	$922,683
Community Relations								
LEAP	$24,000	$24,800	$25,186	$25,186	$25,186	$29,978	$4,792	$5,978
Community Relations	$229,133	$164,549	$180,570	$179,975	$184,361	$192,100	$12,125	($37,033)
Sub-Total	$253,133	$189,349	$205,756	$205,161	$209,547	$222,078	$16,917	($31,055)
Customer Service								
Bad Debt	$130,000	$120,074	$68,322	$233,191	$146,946	$146,946	($86,245)	$16,946
Customer Billing	$1,516,504	$1,295,301	$1,339,912	$1,312,032	$1,361,074	$1,600,938	$288,906	$84,434
Customer Collection	$454,624	$485,608	$475,630	$487,488	$492,565	$503,555	$16,067	$48,931
Sub-Total	$2,101,128	$1,900,983	$1,883,864	$2,032,711	$2,000,585	$2,251,439	$218,728	$150,311
Administration								
Insurance	$134,591	$138,730	$150,893	$128,443	$157,735	$160,924	$32,481	$26,333
Office Supplies	$54,215	$42,316	$38,659	$35,660	$65,737	$45,417	$9,757	($8,798)
General Building	$0	$1,143	$234	$259	$300	$300	$41	$300
Safety Training	$16,045	$13,664	$12,213	$9,374	$27,081	$19,503	$10,129	$3,458
Regulatory Affairs	$192,666	$192,170	$191,252	$219,660	$236,656	$275,305	$55,645	$82,639
Audit, Legal & Consulting	$175,850	$199,566	$120,337	$81,366	$349,600	$202,296	$120,930	$26,446
Administrative and Human Resource	$4,096,241	$3,751,757	$3,903,402	$4,090,138	$4,333,494	$4,526,432	$436,295	$430,191
Sub-Total	$4,669,608	$4,339,346	$4,416,991	$4,564,900	$5,170,603	$5,230,177	$665,278	$560,569
Miscellaneous							$0	$0
Total	**$14,300,000**	**$13,232,884**	**$13,822,518**	**$14,244,004**	**$15,414,383**	**$15,729,872**	**$1,485,868**	**$1,429,872**

MATERIALITY THRESHOLD

In accordance with Chapter 2 Filing Requirements, an applicant must provide justification for changes from year to year to its rate base, capital expenditures and OM&A spending above a materiality threshold. Thunder Bay Hydro's materiality threshold is calculated as .5% of proposed base distribution revenue requirements for distributors with a revenue requirements of greater than $10 million and less than or equal to $200 million. As such, Thunder Bay Hydro has selected the threshold of $119,000 for variance analysis.

4.3.2 PROGRAM DELIVERY VARIANCE ANALYSIS

System Control Operations

A variance increase of $193,446 between the 2017 Test year and the Last Rebasing year is attributable to succession planning for System Control retirements. An apprentice was added to the complement in the fall of 2015 and one additional apprentice complement will be hired in 2016. Additionally, progression pay and regular salary increases for the System Control personnel are cost drivers for this variance.

4.0-VECC-30

Reference: E4/pg.12 /pg. 23

a) Please provide a table showing all the incremental costs being incurred by Thunder Bay Hydro in moving to monthly billing.
b) What are the annual incremental billing costs related to implementing the OESP policy?
c) Please breakdown the 2017 increase in customer billing increase as between that due to monthly billing and that related to other causes.

Thunder Bay Hydro Response:

a)

Monthly Billing Incremental Cost		
# of Customers 2017 Test Year	50,655	
Current Ebilling Customer cour	10,272	
Customers Receiving paper bill	40,383	
% of Residential Customers	0.898015991	
% of all other Customers	0.101984009	
Postage Rate	0.76	
Print/Stuff Residential Rate	0.1166	
Print/Stuff All Other Rate	0.077	
Envelope	0.024	
Please note the rates, customer count and ebilling customer count have been updated to Jan 4, 2016.		
# of bills Bi-Monthly Billing	267,009	
# of Monthly Bills	484,596	
Incremental # of Bills	217,587	
Incremental Postage Cost	$ 165,366	
Incremental Print Cost	$ 25,371	
Incremental Envelope Cost	$ 5,222	
.5 FTE Billing Clerk	$ 25,341	
Total Incremental Cost	$ 221,300	
Reduction to Working Capital	$ 53,379	
Yearly Incremental Net Impact	$ 167,921	

b) While the implementation and operation of the OESP program has increased workload for the respective departments, the costs to implement the OESP program is absorbed by existing departmental budgets.

c) Table 4-1 of Exhibit 4 shows the 2013 Board approved amount and 2017 Test Year amounts for Billing and Collecting were $2,116,128 and $2,251,439 respectively. The impact of this increase is a net difference of $135,311.

Thunder Bay Hydro estimates that the monthly billing costs attributed to this increase in billing frequency will increase billing and collections by $167,921 as stated in the table above.

Had Thunder Bay Hydro not moved its billing cycles to a monthly billing route the Billing and Collections costs would have realized a natural decrease of ($85,989) = $135,311 – $221,300.

experience an increase in the planned spending for this program. Thunder Bay Hydro has found, through the results of the Asset Condition Assessment ("ACA"), that it will be necessary to maintain its legacy substations for longer service duration. To promote safety and ensure that no undue hazards exist additional distribution equipment will need to be installed to maintain a reliable distribution system. For 2017, Thunder Bay Hydro plans to cycle its maintenance activities to some of the station ancillary buildings and grounds outside of the electrical distribution. In 2017 two of the distribution stations are planned for roof repair and the removal and replacement of substation yard's stone surface coverings.

Tree Trimming Maintenance

The variance increase of $124,041 and $198,353 for Thunder Bay Hydro's tree trimming maintenance program between the 2017 Test year and the 2015 actual expenditure, as well as the 2013 board approved proxy amount (respectively) is the result of Thunder Bay Hydro's response to customer concerns that became evident following a series of winter storms and a new bylaw introduced by the City of Thunder Bay to make tree trimming a key focus area. Obstruction of tree limbs in proximity to power lines can cause outages and power quality issues and can be observed as a major safety concern within the community.

Thunder Bay Hydro aims to maintain a dependable and safer system and seeks to improve its reliability. Upon reviewing Thunder Bay Hydro's yearly RRR service quality indicators it was noted that the SQI statistic cause code #3 "Tree Contacts " accounted for a quarter (25%) of Thunder Bay Hydro's outages during the 2015 year. Thunder Bay Hydro is focused on a preventative outage program and this increase in plan is required to allow more aggressive cutting to combat extreme weather that causes power outages and costly damage to Thunder Bay Hydro infrastructure. Thunder Bay Hydro uses a forestry contractor for these services. This contract is awarded through the tendering process to ensure competitive pricing.

Customer Service Billing

The variance increase of $ 288,906 for the customer service billing program between the 2017 Test Year and the 2015 actual expenditure amount is primarily a result of the Board mandated transition from bi-monthly residential billing cycles to monthly billing cycles. This change has doubled the postage costs and printing costs in this department. Additional increases in this department are a result of activities planned to enhance a customer centered focus on the new renewed regulatory framework objectives. Thunder Bay Hydro continues to create efficiencies in its customer service department and these principles will guide the decision making of the department through to 2020. The current customer service strategy is to provide autonomy, create efficiency and engage all customer classes. In the 2017 Test Year Thunder Bay Hydro is making improvements to the 'MyTBHYDRO' customer portal by adding new customer sign ups and automating account reminder calls.

4.0-SEC-26

Ref: Exhibit Four, page 23

[4, p. 23] Please provide a copy of the City of Thunder Bay tree trimming bylaw referred to, together will all presentations, memoranda, reports and other documents provided by the Applicant to the City of Thunder Bay related to that bylaw.

Thunder Bay Hydro Response:

CITY OF Thunder Bay
Superior by Nature

INFRASTRUCTURE & OPERATIONS DEPARTMENT
PARKS DIVISION
Victoriaville Civic Centre
111 Syndicate Avenue South
Thunder Bay, ON P7C 6S4

To: Thunder Bay Hydro
Re: Utility Pruning of Municipal Trees

Trees and utility lines are both important assets for our communities. Individually, they provide a multitude of benefits but together they often end up in conflict. Trees growing under or near hydro wires often cause power failures and, as a result, require pruning or removal to clear the lines.

The City of Thunder Bay requires that all trees pruned on municipal property are done so in accordance with proper arboricultural standards and practices. Guidelines for proper pruning are outlined in the American National Standard Institute A-300 Part 1: Tree, Shrub and Other Wood Plant Maintenance – Standard Practices, Pruning publication and in its companion publication Best Management Practices – Utility Pruning, which is produced by the International Society of Arboriculture. These standards have been incorporated into Corporation of the City of Thunder Bay By-law 008-2005 and pruning of all municipal trees must conform to them.

In the past, tree topping was a method used by utility companies to clear lines of tree branches. Topping is the indiscriminate cutting of tree branches to stubs or lateral branches that are not large enough to assume the terminal role. For a number of reasons, this method has been identified as an extremely harmful tree pruning method which frequently causes trees to become unhealthy and structurally hazardous. Tree topping is not a sound arboricultural practice and is prohibited on municipal trees according to By-law 008-2005.

In contrast, directional pruning is the preferred method for utility line clearing. It involves pruning only branches that are heading towards the utility lines and cutting them back to a proper branch collar. This results in healthier and structurally stronger trees and is the technique approved by the City of Thunder Bay.

Unfortunately, directional pruning cannot be used to solve all line clearance problems. While many hardwood trees can be successfully pruned around power lines, trees with narrow crowns such as some conifers cannot be treated this way. In many situations involving conifer trees, removal is the only solution.

Where municipal trees under hydro wires have to be removed, adjacent homeowners are advised to plant appropriately sized species on their property if they want to compensate for the lost buffer. Thunder Bay Hydro has an excellent web page that provides a tree planting guide to assist homeowners in determining what size tree to plant near hydro wires. To download it or a copy of their brochure entitled 'Why Do You Need to Trim or Remove My Trees', please visit Thunder Bay Hydro's website at http://www.tbhydro.on.ca/Safety/About-Tree-Trimming.htm

For more information regarding the Corporation of the City of Thunder Bay By-law 008-2005, please visit our website at http://www.thunderbay.ca/Living/Environment/Urban_Forestry/Public_Tree_By-law.htm.

Shelley Vescio M.Sc.F. R.P.F.
City Forester
(807) 625-2473

4.0 -VECC -38

Reference: E

a) Thunder Bay Hydro is proposing a significant increase in tree trimming OM&A expenses for 2017. Please provide the study or analysis which shows the benefit of expanding the current budget.
b) Thunder Bay Hydro notes that tree contact account for 25% of outages during 2015. What percentage of outages were caused by tree contacts in each of 2013 through 2016.
c) In light of the perceived need to increase tree trimming in 2016 please explain why Thunder Bay Hydro decreased its tree trimming budget as between 2015 and 2016.

Thunder Bay Hydro Response:

INTRODUCTION

This document outlines the general considerations regarding the clearing and subsequent management of vegetation in proximity to Thunder Bay Hydro's rural distribution network. Thunder Bay Hydro's service area is bounded by the limits of the City of Thunder Bay which encompasses an area covering approximately 387 square kilometers. This service area is made up of approximately 70% rural and 30% urban (by customer density). Our distribution network is approximately 79% overhead and 21% underground (by length). This allocation yields a significant number of overhead line assets in rural areas that are exposed to vegetation.

Thunder Bay Hydro has begun to experience an increase in the number and duration of outages caused both by vegetation growing in close proximity to the line; and trees falling on the line. The duration of these outages is often extended due in part to the sizeable area required to be patrolled to locate the particular failure. These outages not only impact our customers and our annual outage statistics, but they are costly locate and repair as they typically require personnel to be called out on premium time.

For these reasons it is prudent to formulate a plan and timeline to re-establish right-of-way's clear of vegetation and an ongoing maintenance cycle to prevent encroachment levels from reaching the current state.

SCOPE

The scope of this program involves clearing vegetation from all existing rural right-of-way's in Thunder Bay Hydro's service territory utilizing a systematic and staged approach; as well, establishing a maintenance cycle to preserve the state of the of previously cleared areas. The program will be prioritized based primarily on the customer count on a given circuit as well as the historical reliability performance data for each circuit.

DEFINITIONS

OEB – Ontario Energy Board, comprised of government appointed representatives, regulates the province's electricity sector in the public interest.

SAIDI – System Average Interruption Duration Index is a reliability statistic that represents the average number of hours of electrical service interruption experienced by customers.

SAIFI – System Average Interruption Frequency Index is a reliability statistic that represents the average number of electrical service interruptions experienced by customers.

PROGRAM INITIATION

Thunder Bay Hydro has a duty to safely, reliably and effectively supply electricity to its customers, as governed by the OEB, and various legislative and regulating provincial and federal codes and laws. It is therefore the responsibility of the Utility to take steps to mitigate a known issue that impacts both the reliability and safety of its customers. As previously indicated, in recent years, Thunder Bay Hydro has experienced an increase in the frequency and duration of outages due to tree contacts. This is further illustrated in Figure 1 below. These incidents not only impact Thunder Bay Hydro's reliability statistics, but also pose a potential safety hazard due to fallen lines, broken poles and the like. As a result, Thunder Bay Hydro is actively developing a guideline for the clearing and maintenance of vegetation in proximity to its rural infrastructure.

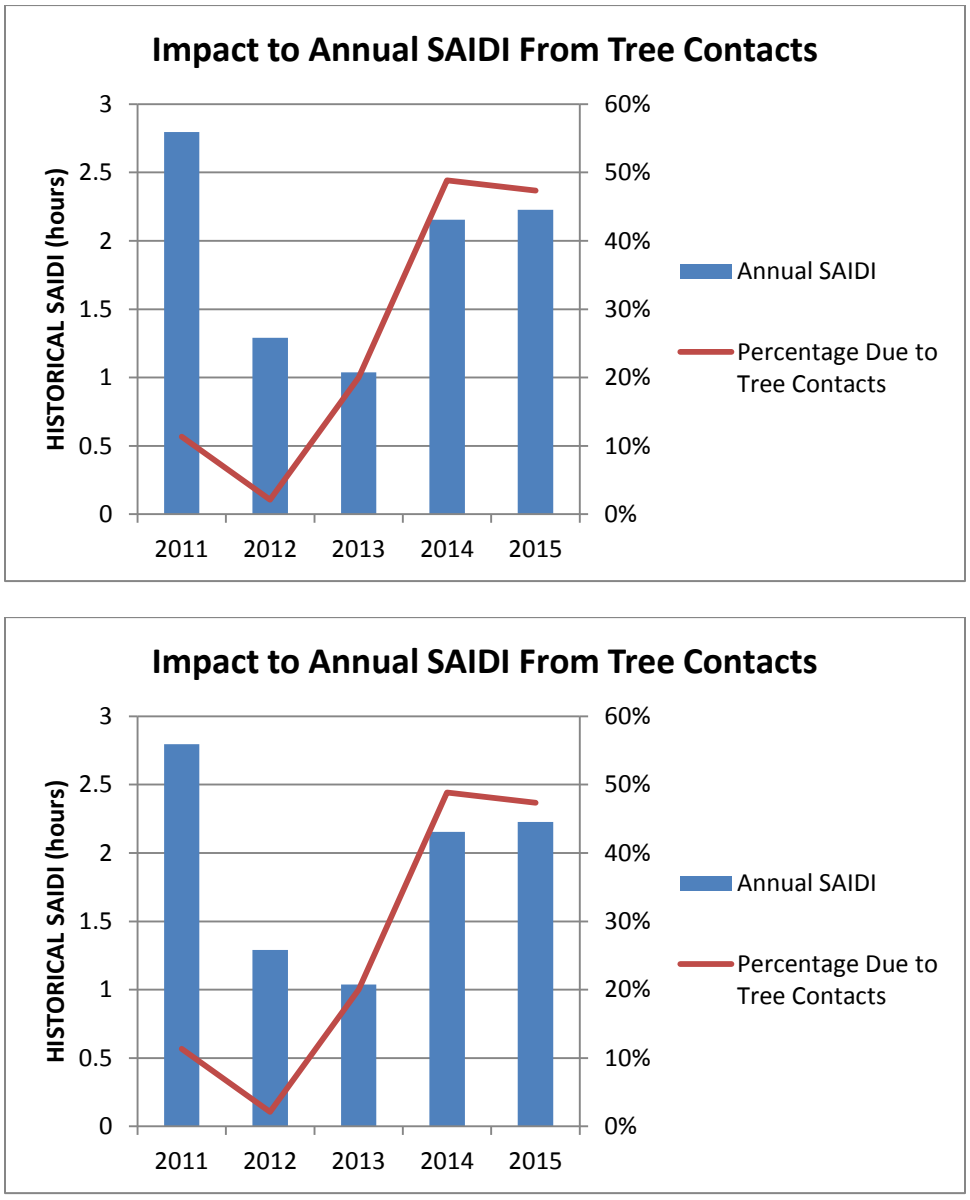


FIGURE 1: Impact to Annual SAIDI from Tree Contacts

ROLES & RESPONSIBILITIES

Lines:

a. The Lines Department Superintendent is responsible to drive the progression of the program and monitor its status.
b. Lines Department is responsible for an annual program schedule based on priorities, budgetary commitment to coordinate with other capital works and maintenance programs.

c. Lines Department is responsible for the creation of work orders for the annual replacements.
d. Line supervisors will commit the required resources to complete the program annually.
e. Lines Department will schedule the work so as to minimally impact customers.

Engineering:

a. Engineering will develop a program guideline with a timeframe that results in management of encroaching vegetation in rural areas in the near term.
b. Engineering will review design challenges encountered by Lines.
c. Engineering will provide logistical and technical support during initial implementation of the program.

AREAS OF FOCUS

Priority for replacements will be assigned based on several considerations:

1. Reliability impact, worst performing feeders i.e. serves more customers or critical load, multiple circuits.
2. Areas of recorded historical failures.

Customer Impact

The following table, Table 1 outlines the 25kV circuits in the distribution territory. The data in the table has been normalized to a value between 0 and 100. For customer count, 100 represents the circuit having the largest customer count connected to it down to near 0 for the least amount of customers. For outage data, 100 represents the circuit that has consistently had the worst performance from a frequency and duration perspective from the period 2012-2015. The outage data bands have been grouped and weighted by performance, >60% = 1, <33% = 0.1 and any other values are assigned 0.5. The values in these bands are multiplied by the normalized customer count and these result in the circuit significance.

c. Lines Department is responsible for the creation of work orders for the annual replacements.
d. Line supervisors will commit the required resources to complete the program annually.
e. Lines Department will schedule the work so as to minimally impact customers.

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TABLE 1: Circuit Priority

Circuit	Normalized Customer Count	Normalized Outage Data	Circuit Significance
10M9	76.64	33.33	38.32
36F	30.97	100.00	30.97
23F	13.92	66.67	13.92
18F	12.27	66.67	12.27
19F	14.36	25.00	7.18
2M4	100.00	0.00	1.00
10M8	82.97	0.00	0.83
17M4	73.96	0.00	0.74
10M3	70.72	0.00	0.71
2M2	68.44	0.00	0.68
17M5	60.35	0.00	0.60
10M1	57.23	0.00	0.57
10M7	56.97	0.00	0.57
17M2	53.41	0.00	0.53
10M10	50.05	0.00	0.50
10M4	45.05	0.00	0.45
10M6	40.22	16.67	0.40
17M8	37.46	0.00	0.37
17M6	37.21	0.00	0.37
17M3	34.12	16.67	0.34
2M5	24.21	16.67	0.24
17M7	12.51	0.00	0.13

TABLE 2: Outages by Category Annually 2012-2015

Outage Category	2012					2013				
	Customer hours of interrupts	% of Annual Total	Customer interrupts	% of Annual Total	Included a Breaker Operation	Customer hours of interrupts	% of Annual Total	Customer interrupts	% of Annual Total	Included a Breaker Operation
by OEB Cause										
0 Unknown/Other	1919	3.0%	92488	23.5%	49	1667	2.7%	89956	27.4%	47
1 Scheduled Outage	10528	16.4%	9892	2.5%	6	12365	19.8%	12484	3.8%	5
2 Loss of Supply	238	0.4%	89	0.0%	3	334	0.5%	5970	1.8%	2
3 Tree Contacts	1370	2.1%	2507	0.6%	3	10386	16.6%	14633	4.5%	14
4 Lightning	4841	7.5%	49415	12.5%	28	999	1.6%	18659	5.7%	5
5 Defective Equipment	24184	37.6%	94399	23.9%	46	28088	45.0%	99086	30.2%	46
6 Adverse Weather	0	0.0%	0	0.0%	0	759	1.2%	6166	1.9%	2
7 Adverse Environment	476	0.7%	711	0.2%	1	8	0.0%	4	0.0%	0
8 Human Element	733	1.1%	10904	2.8%	4	258	0.4%	5802	1.8%	1
9 Foreign Interference	20034	31.1%	133784	33.9%	66	7584	12.1%	75799	23.1%	36
Annual Totals:	**64323**	**99.9%**	**394189**	**99.9%**	**206**	**62448**	**100.0%**	**328559**	**100.0%**	**158**

2014					2015				
Customer hours of interrupts	% of Annual Total	Customer interrupts	% of Annual Total	Included a Breaker Operation	Customer hours of interrupts	% of Annual Total	Customer interrupts	% of Annual Total	Included a Breaker Operation
2812	2.6%	116107	29.0%	64	613	0.5%	93679	22.0%	47
5462	5.0%	5893	1.5%	1	7479	6.6%	10162	2.4%	9
11738	10.7%	13032	3.3%	5	10437	9.3%	25058	5.9%	10
53106	48.3%	47559	11.9%	48	53350	47.4%	39643	9.3%	35
2097	1.9%	19742	4.9%	13	1683	1.5%	36195	8.5%	18
12983	11.8%	72342	18.1%	35	31052	27.6%	114408	26.9%	50
0	0.0%	0	0.0%	0	33	0.0%	3230	0.8%	1
0	0.0%	0	0.0%	0	101	0.1%	38	0.0%	0
2298	2.1%	5497	1.4%	1	158	0.1%	2678	0.6%	1
19367	17.6%	120158	30.0%	53	7685	6.8%	100196	23.6%	35
109863	**100.0%**	**400330**	**100.0%**	**220**	**112591**	**100.0%**	**425293**	**100.0%**	**206**

Summary of Priority Areas

After processing all the preceding data and reviewing with subject matter experts within the Utility, the recommendations for priority areas to begin the vegetation management program is as follows (highest priority first):

- 10M9
- 36
- 23
- 18
- 19

Following these areas priority will not be assigned but management will take place according to budgetary limitations.

BUDGETARY ESTIMATE/TIMELINE

The length of time to complete the estimated clearing of all rural right-of-ways is a function of budgetary commitment, and labour. The quantity of labour required has been estimated based on a per span basis leveraging knowledge of subject matter experts along with historical clearing projects.

The results are as follows:

Table 3: Labour Costs

Crew Type	Cost per Day	Time Ratios
Brushing Costs 2 Person crew	$560	
2 Person Crew with truck and chipper	$1,280	80%
3 person Crew with truck and chipper	$1,520	20%
Blended rate for above	$1,328	

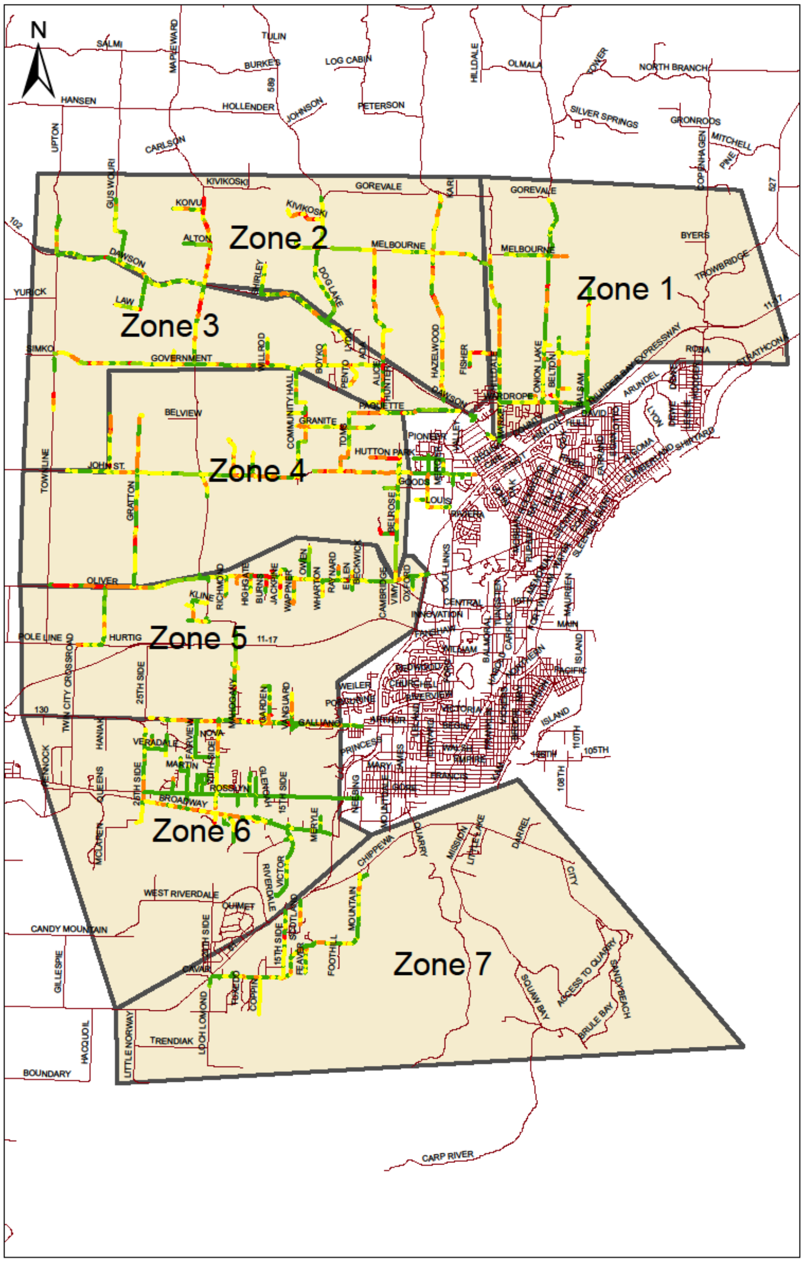
Table 4: Clearing Cycle

Vegetation Density	Total Length (m)	Span Count	Spans/day	# of Days
Clear	157273	2937	N/A	0
Brushing Required	29707	506	3.0	169
<50% Cover	136430	2415	1.5	1610
>50% Cover	34223	1144	1.0	1144
Heavy (>75%) Cover	10262	380	0.5	760
			Total	**3683**
			Cycle with 1 Crew @261 working days/year	**14 years**
			Cycle with 2 Crew @261 working days/year	**7 years**

Table 5: Vegetation Clearing Costs

Vegetation Density	Unassessed length * known ratios	Total Length (m)	Span Count	Spans/day	Extended Cost
Clear	84050	157273	2937	N/A	$0
Brushing Required	15876	29707	506	3.0	$94,523
<50% Cover	72911	136430	2415	1.5	$2,138,480
>50% Cover	4615	34223	1144	1.0	$1,519,235
Heavy (>75%) Cover	502	10262	380	0.5	$1,009,217
				Total	**$4,761,454**
				5 year cycle (w/10% contingency)	**$1,047,520**
				7 year cycle (w/10% contingency)	**$748,228**

Final analysis of the labour and fiscal cycle indicates that this project aligns well with a timeline of 7 years equating to a budget allotment of $750,000 annually.


N
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
SALMI
TULIN
BURKE'S
LOG CABIN
HILLDALE
OLMALA
NORTH BRANCH
HANSEN
HOLLENDER
JOHNSON
PETERSON
SILVER SPRINGS
GRONRODS
MITCHELL
UPTON
CARLSON
KIVIKOSKI
GOREVALE
MELBOURNE
BYERS
TROWBRIDGE
DAWSON
YURICK
LAW
SIMKO
GOVERNMENT
BELVIEW
JOHN ST.
TOWNLINE
GRATTON
OLIVER
POLE LINE
HURTIG
25TH SIDE
WEST RIVERDALE
CANDY MOUNTAIN
GILLESPIE
BOUNDARY
TRENDIAK
LITTLE NORWAY
CARP RIVER
MOUNTAIN
CHIPPEWA
SQUAW BAY
ACCESS TO QUARRY
SANDY BEACH
ARUNDEL
EXPRESSWAY
STRATHCONA
CITY

TAB

4.0-VECC-26

Reference: E4/pg.47

a) Please provide the annual membership fees for the EDA for each year 2013 through 2017.
b) Please provide the MEARIE premiums paid for each year 2013 through 2017 (forecast).
c) Thunder Bay Hydro states that some MEARIE benefits are sourced from other insurers (Desjardins – pg.38). Please explain why Thunder Bay Hydro would not directly insure with a carrier rather than through MEARIE.
d) Please explain why MEARIE productions are single sourced.
e) When was the last time that Thunder Bay Hydro tendered for insurance products?

Thunder Bay Hydro Response:

a) See the following table for the annual membership fees paid to the EDA for the years 2013 through 2017.

OM&A Cost Driver	2013 Rebased	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year	Total
EDA Conference Fees	$57,400	$57,700	$60,200	$62,200	$57,800	$69,200	
Variance Year over Year		$300	$2,500	$2,000	($4,400)	$11,400	$11,800

b) See the following table for the Mearie Insurance premiums paid for each year 2013 through 2017 forecast

OM&A Cost Driver	2013 Rebased	Last Rebasing Year (2013 Actuals)	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year	Total
Mearie Premiums (Insurance)	$103,263	$101,183	$106,173	$91,970	$122,824	$125,280	
Variance Year over Year		($2,080)	$4,990	($14,203)	$30,854	$2,456	$22,017

c) MEARIE provides administrative and conflict resolution services as a third party administrator specific to benefit/claims administration and sourcing. These skills do not exist at Thunder Bay Hydro.

TAB 4

4.0-VECC-34

Reference: E4/pg.32

a) Please amend Table 4-12 to include the amount of compensation capitalized in each year.

Thunder Bay Hydro Response:

Amended Table 4-12

	Last Rebasing Year - 2013-Board Approved	Last Rebasing Year - 2013-Actual	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year
Number of Employees (FTEs including Part-Time)[1]						
Management (including executive)	23.00	22.71	23.35	24.19	24.51	23.87
Non-Management (union and non-union)	120.28	112.40	110.55	110.03	111.72	114.41
Total	143.28	135.12	133.90	134.22	136.23	138.28
Total Salary and Wages including ovetime and incentive pay						
Management (including executive)	$2,448,655	$2,464,244	$2,556,328	$2,725,063	$2,729,507	$2,793,563
Non-Management (union and non-union)	$8,221,662	$7,771,547	$7,890,473	$7,861,435	$8,019,476	$8,689,968
Total	$10,670,317	$10,235,791	$10,446,801	$10,586,498	$10,748,983	$11,483,532
Total Benefits (Current + Accrued) [2]						
Management (including executive)	$642,844	$589,535	$651,114	$712,598	$708,489	$706,124
Non-Management (union and non-union)	$2,039,334	$1,786,783	$1,829,751	$1,864,592	$1,965,925	$2,115,291
Total	$2,682,178	$2,376,318	$2,480,865	$2,577,190	$2,674,414	$2,821,415
Total Compensation (Salary, Wages, & Benefits)						
Management (including executive)	$3,091,499	$3,053,778	$3,207,442	$3,437,661	$3,437,996	$3,499,687
Non-Management (union and non-union)	$10,260,996	$9,558,330	$9,720,224	$9,726,027	$9,985,401	$10,805,259
Total	$13,352,495	$12,612,109	$12,927,666	$13,163,688	$13,423,397	$14,304,947
Total Compensation (Salary, Wages, & Benefits) Allocation						
Capital		$4,127,353	$4,013,259	$4,163,798	$4,192,531	$4,790,718
Operations		$8,484,756	$8,914,407	$8,999,890	$9,230,866	$9,514,229
Total		$12,612,109	$12,927,666	$13,163,688	$13,423,397	$14,304,947

4-AMPCO-23

Ref: Ex 4 Page 32 Table 4-12

a) Please recast the table to show executive, union and non-union FTEs as well as overtime and incentives paid, as separate lines items in the Table.

b) Please provide the budgeted and actual overtime hours and costs for the years 2012 to 2016 and forecast for 2017.

c) Please provide the percentage of overtime paid as double time in 2015 and 2016.

d) Please provide the number of co-op students by year and associated costs.

e) Please provide the % of costs in Table 4-12 reflected in the capital versus OM&A budget for each year.

f) Please provide the number of FTEs derived from overtime hours and show the calculation.

g) The Table includes footnotes 1 and 2 with no explanation. Please provide.

Thunder Bay Hydro Response:

a) Please recast the table to show executive, union and non-union FTEs as well as overtime and incentives paid, as separate lines items in the Table.

Table 4-12: FTE &Employee Costs

	Last Rebasing Year - 2013-Board Approved	Last Rebasing Year - 2013-Actual	2014 Actuals	2015 Actuals	2016 Bridge Year	2017 Test Year
Number of Employees (FTEs including Part-Time)[1]						
Executive	5.00	5.00	5.00	5.00	5.00	5.00
Management	18.00	17.70	18.35	19.19	19.12	18.79
Non-Union	13.95	13.58	12.10	13.51	11.65	14.18
Union	100.86	92.30	90.80	89.66	94.15	94.88
Overtime	5.47	6.54	7.65	6.86	6.31	5.70
Total	143.28	135.12	133.90	134.22	136.23	138.55
Total Salary and Wages, Overtime and Incentive Pay						
Executive, including incentive pay	$ 733,879	$ 794,582	$ 811,778	$ 814,546	$ 843,630	$ 857,271
Management	$ 1,690,549	$ 1,669,662	$ 1,744,550	$ 1,910,517	$ 1,885,877	$ 1,936,292
Non-Union	$ 1,110,931	$ 959,664	$ 882,504	$ 927,333	$ 921,037	$ 1,100,005
Union	$ 6,387,482	$ 5,970,930	$ 6,088,146	$ 6,050,617	$ 6,228,153	$ 6,747,627
Overtime	$ 723,249	$ 840,953	$ 919,823	$ 883,485	$ 870,286	$ 842,336
Total	$ 10,646,090	$ 10,235,791	$ 10,446,801	$ 10,586,498	$ 10,748,983	$ 11,483,532
Total Benefits (Current + Accrued)						
Executive	$ 190,294	$ 176,944	$ 189,599	$ 215,172	$ 212,869	$ 214,152
Management	$ 452,549	$ 412,591	$ 413,252	$ 497,427	$ 495,620	$ 491,972
Non-Union	$ 287,062	$ 230,353	$ 216,258	$ 245,956	$ 243,029	$ 287,040
Union	$ 1,752,272	$ 1,556,430	$ 1,465,344	$ 1,618,640	$ 1,722,896	$ 1,828,252
Total	$ 2,682,177	$ 2,376,318	$ 2,284,453	$ 2,577,195	$ 2,674,414	$ 2,821,415
Total Compensation (Salary, Wages, & Benefits)						
Executive	$ 924,173	$ 971,526	$ 1,001,377	$ 1,029,718	$ 1,056,499	$ 1,071,423
Management	$ 2,143,098	$ 2,082,253	$ 2,157,802	$ 2,407,944	$ 2,381,497	$ 2,428,264
Non-Union	$ 1,397,993	$ 1,190,017	$ 1,098,762	$ 1,173,289	$ 1,164,066	$ 1,387,045
Union	$ 8,139,754	$ 7,527,360	$ 7,553,490	$ 7,669,257	$ 7,951,049	$ 8,575,879
Overtime	$ 723,249	$ 840,953	$ 919,823	$ 883,485	$ 870,286	$ 842,336
Total	**$13,328,267**	**$ 12,612,109**	**$ 12,731,254**	**$ 13,163,693**	**$13,423,397**	**$14,304,946**

Year	Budget Hours	Actual Hours	Budget $ Total	Actual $
2012	10,997	12,574	$585,723	$783,289
2013	11,346	13,555	$723,249	$840,953
2014	13,077	15,875	$848,858	$919,823
2015	12,875	14,211	$920,071	$883,485

2016	11,271	11,023	$847,670	$736,857
2017	11,649		$886,781	

b) Budgeted and actual overtime hours and costs for the years 2012 to 2016 and forecast for 2017 are presented in the following table.

c) Percentage of overtime paid as double time was 82% and 80% in 2015 and 2016 respectively.

d) There were 2 co-op students in 2014 for a cost of $2,300 and 1 in 2016 for a cost of $300.

e) The % of costs in Table 4-12 reflected in the capital versus OM&A for each year is as follows.

Year	Capitalized Labour & Benefits	Total Labour & Benefits	% Capitalized Labour & Benefits
2013	$4,127,353	$12,612,109	32.73%
2014	$4,013,259	$12,927,666	31.04%
2015	$4,163,798	$13,163,688	31.63%
2016	$4,192,531	$13,423,397	31.23%
2017	$4,790,718	$14,304,947	33.49%

f) The number of FTEs derived from overtime hours for each year is as follows. The calculation is simply the total hours divided by the annual hours for an employee (2,080).

Year	Overtime Hours	Full-time hours/year	FTE
2012	12,574	=497/1,820+12,076/2080	6.29
2013	13,555	=213/1,820+13,342/2,080	6.54
2014	15,875	=362/1,820+15,513/2,080	7.65
2015	14,211	=490/1,820+13,721/2,080	6.86
2016	11,023	=370/1,820+10,653/2,080	5.32
2017	11,649	=303/1,820+11,346/2080	5.70

g) The Table footnotes 1 and 2 are the footnotes to Chapter 2 Appendix 2-K as follows:

Note:

[1] If an applicant wishes to use headcount, it must also file the same schedule on an FTE basis.

[2] Current employee benefits, plus Pension and Other Post-Employment Benefits costs, as recorded for recovery in distribution rates. Should be consistent with OPEBs costs as documented in Appendix 2-KA.

4.0-VECC-35

Reference: E4/pg.32

a) Thunder Bay's explanation as to the variances in FTEs for Board approved as compared to actuals all relate to delayed hiring. Yet Thunder Bay Hydro had a deficit of approximately 9 FTEs for the entire prior rate period. Please explain why in its last cost of service application Thunder Bay Hydro proposed funding of rates of 143 FTEs when this was higher than its actual needs over the subsequent 3 years.
b) Please provide the annual savings in FTEs costs from Board approved for each year 2013 through 2016.

Thunder Bay Hydro Response:

a) Thunder Bay Hydro believes the deficit for the entire prior rate period is approximately 7 FTE versus the 9 as stated in the question. The entire prior rate period would include 2016. Thunder Bay Hydro based the 2013 budget on the best estimates at the time. As noted in the application, there were a number of factors that influenced the actual outcomes, including the Powerline succession strategy revision: unanticipated internal staff movement that allowed a position not to be filled: vacancies were more challenging to fill, unusual long-term sick leave challenges: and staff reductions due to retirements which were part of the previous succession plan strategy, therefore, no replacement hire required.

b) The following are Thunder Bay Hydro's estimated savings in FTE costs.

Description	FTE	$ Savings			
		2013	2014	2015	2016
Revision to Powerline succession strategy	(4.00)	213,476	218,279	221,553	225,984
Re-allocation of "Non-Wires"	(1.78)	0	0	0	0
Overtime	1.07	(117,704)	(120,352)	(122,158)	(124,601)
Sub-total representing Estimated annual	(5)	95,772	97,927	99,396	101,384
Summer Student hires curtailed*	(1.27)				
Staff move within organization enabled non-replacement of the Position well in advance of employee's retirement*	(1.00)				
	(6.98)	95,772	97,927	99,396	101,384

*Thunder Bay Hydro was required to reduce OM&A costs in the 2013 Board Approved budget by $387,292. This was an unallocated settlement adjustment, some of which was achieved through

wage reduction: however, the 2013 Board Approved amounts do not reflect this. These amounts represent part of the OM&A cost adjustment of $387,292.

4-Staff-53

Ref: E4/p. 32 Table 4-12

At the above reference, FTE and Employee Costs are provided for the period from 2013 to 2017. In the two-year period 2013 to 2015, Total Management Compensation is shown as increasing from $3,053,778 to $3,437,661, an increase of 12.6%, while Total Non-Management Compensation in the same period increased from $9,558,330 to $9,726,027, an increase of 1.8%.

Please explain this differential including the 12.6% increase in management compensation.

Thunder Bay Hydro Response:

Please refer to 4-AMPCO-23 (a) which segregates Table 4-12 so that the Union and Management groupings are apparent. The actual total Management Group Compensation increase was 8.65% and the Union was 2.20%. The most significant driver of the differential is the number of FTEs. Management FTE increased by 1.42 from 2013 to 2015 versus the Union FTE decreasing by 2.64 in the period.

4.0-VECC-35

Reference: E4/pg.32

a) Thunder Bay's explanation as to the variances in FTEs for Board approved as compared to actuals all relate to delayed hiring. Yet Thunder Bay Hydro had a deficit of approximately 9 FTEs for the entire prior rate period. Please explain why in its last cost of service application Thunder Bay Hydro proposed funding of rates of 143 FTEs when this was higher than its actual needs over the subsequent 3 years.
b) Please provide the annual savings in FTEs costs from Board approved for each year 2013 through 2016.

Thunder Bay Hydro Response:

a) Thunder Bay Hydro believes the deficit for the entire prior rate period is approximately 7 FTE versus the 9 as stated in the question. The entire prior rate period would include 2016. Thunder Bay Hydro based the 2013 budget on the best estimates at the time. As noted in the application, there were a number of factors that influenced the actual outcomes, including the Powerline succession strategy revision: unanticipated internal staff movement that allowed a position not to be filled: vacancies were more challenging to fill, unusual long-term sick leave challenges: and staff reductions due to retirements which were part of the previous succession plan strategy, therefore, no replacement hire required.

b) The following are Thunder Bay Hydro's estimated savings in FTE costs.

Description	FTE	$ Savings			
		2013	2014	2015	2016
Revision to Powerline succession strategy	(4.00)	213,476	218,279	221,553	225,984
Re-allocation of "Non-Wires"	(1.78)	0	0	0	0
Overtime	1.07	(117,704)	(120,352)	(122,158)	(124,601)
Sub-total representing Estimated annual	(5)	95,772	97,927	99,396	101,384
Summer Student hires curtailed*	(1.27)				
Staff move within organization enabled non-replacement of the Position well in advance of employee's retirement*	(1.00)				
	(6.98)	95,772	97,927	99,396	101,384

*Thunder Bay Hydro was required to reduce OM&A costs in the 2013 Board Approved budget by $387,292. This was an unallocated settlement adjustment, some of which was achieved through

wage reduction: however, the 2013 Board Approved amounts do not reflect this. These amounts represent part of the OM&A cost adjustment of $387,292.

The three pillars of Thunder Bay Hydro's goals focus on ensuring that the health & safety of Thunder Bay Hydro employees and the public is Thunder Bay Hydro's first priority; providing a reliable supply of electricity to the residents and businesses of Thunder Bay; and protecting and growing the value of Thunder Bay Hydro to Thunder Bay Hydro's shareholder.

One of Thunder Bay Hydro's beliefs is that 'Our Customers are the reason we exist'. Both corporate and individual goals and Thunder Bay Hydro's are structured to deliver and reward on the results of this belief. Corporate results are shared regularly with the organization as Thunder Bay Hydro tracks its efforts against outputs.

Executive Pay

Thunder Bay Hydro's executive pay philosophy considers compensation from throughout Ontario at other like-sized or similarly structured utilities, ensuring that executives are compensated at levels consistent with the mean of comparable organizations. Such compensation levels are reviewed on a regular basis.

Benefits

A comprehensive and competitive benefits package exists which includes medical and dental insurance, life insurance, vacation and leave policies and a company-sponsored retirement plan.

The plans are designed to address the health and welfare needs of the employee population. The benefit packages are consistent across the organization for 136 full-time employees, including the executive team. The only inconsistencies are Long Term Disability (LTD) coverage for a portion of the union group (grandfathered as the result of a merger and subsequent negotiating process); life insurance coverage (some staff receive 2 times current base salary versus the majority 1.5 times current base salary); tiered health spending account (annual) amounts for non-union staff; and reduced, employee-funded partial benefits for participating part-time staff.

4.4.4 FTE BY DEPARTMENT

New positions since the Last Rebasing in 2013 are as follows:

Fleet Services Technician – Fleet Services: 1 FTE position added February 2014. This was a position that was in the Last Rebasing 2013 Board Approved; however, was filled with part-time staff at approximately .54 FTE.

Substation Electrician: 1 FTE position was added March 2014. This was a position that was in the Last Rebasing 2013 Board Approved; however, continued to be filled with part-time staff at approximately .9 FTE.

Administrative Assistant - Power Systems: 1 full time position was added June 2014 resulting in an increase of .5 FTE as part-time hours was reduced.

Billing Clerk - Billing & Settlement: 1 FTE position added December 2014. This was a position that was in the Last Rebasing 2013 Board Approved; however, was filled with part-time staff at approximately .54 FTE. A further .5 FTE position has been forecasted in the 2016 Bridge Year as the mandated transition to monthly billing for the Residential customer is completed.

System Control Operator: 2 FTE complement addition for succession planning has been added since the Last Rebasing year. One apprentice was hired October 2015 and the second one is expected to commence in the third quarter of 2016 Bridge Year.

GIS Technician - Power Systems: 1 FTE position added May 2016. This increase is due to GIS becoming a heavily increasingly relied upon database for asset information, as it is used to track and document all of Thunder Bay Hydro assets. The database will be kept current throughout the year rather than on a seasonal basis as was the case when the duties were being performed by the Locate / GIS Coordinator. When records are updated on a daily basis, the risk of inaccurate locates due to outdated records is reduced especially during the busy construction season. The retirement & departures of staff which the higher paid wage band contributed to this new position being a cost neutral addition.

Corporate Financial Analyst: 1 FTE position added August 2016 to address ongoing workload issues within the Finance Division. It is critical that adequate staffing is in place to ensure compliance and financial obligations are being dealt with on a timely basis.

Powerline Apprentices: In Thunder Bay Hydro's Lasing Rebasing – 2013 Board Approved it was planned to temporarily increase complement for upcoming retirements and increased capital and maintenance work. This decision was subsequently revisited and the positions were not filled. Thunder Bay Hydro's revised Powerline strategy is outlined at 4.4.2 Succession Planning above. This decision was also related to the deferral of capital projects in 2013 to subsequent years.

4.4.5 FTE AND EMPLOYEE COSTS

As required, employee complement by FTE, compensation and benefits are set below in Table 4-12. This table is consistent with the Board Appendix 2-K and a copy can also be found in Attachment 4-F to this exhibit.

TAB 5

4-Staff-51

Ref: E4/p. 27

At the above reference, it is stated "Given that the union ratification was very recent, Thunder Bay Hydro has not adjusted the 2016 Bridge and 2017 Test Year to reflect the reduction in cost; however, will provide during the interrogatory process."

Please provide this information including a high level summary of its major impacts.

Thunder Bay Hydro Response:

The 2016 Bridge year wage increase was estimated in the submitted Cost of Service at 2.5%. The ratified increase for 2016 was 2%. The 2017 Test year wage increase was estimated to be 2.0%. The ratified increase for 2017 was 2%.

The overall impact of the net .5% difference in 2016 to total compensation is:

2016 $48,000 total compensation overstated
2017 $74,000 total compensation overstated