

SCHOOL ENERGY COALITION

**CROSS-EXAMINATION
MATERIALS**

EB-2016-0105

THUNDER BAY HYDRO

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Consumer
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monitoring



Robert Mace

President & CEO, Thunder Bay Hydro Electricity Distribution Inc.

Robert Mace is the President and CEO of Thunder Bay Hydro Electricity Distribution Inc., and its three subsidiary companies.

Mr. Mace currently sits as the Northwestern Ontario representative for the Electricity Distributors Association Board and occupies a position on the MEARIE Board. He has previously served as Chair of both entities. Additionally, Mr. Mace sits on the Board of the Electrical Safety Association. He participates as a member of the IESO's Stakeholder Advisory Committee and the OEB Chair's Advisory Committee.

Thunder Bay, Kenora hydro companies explore potential merger

Two northwestern Ontario utilities announced memorandum of understanding Friday

[CBC News](#) Posted: Oct 21, 2016 11:33 AM ET Last Updated: Oct 21, 2016 3:16 PM ET

The locally-owned hydro companies in Thunder Bay and Kenora, Ont. have signed a memorandum of understanding to explore a potential merger.

The proposed venture, which was announced in a press release Friday, would help both utilities operate in an increasingly complex power industry, in part by achieving economies of scale, said Robert Mace, the president and CEO of Thunder Bay Hydro,

"You don't need to have two audits, you don't need to do two sets of filings to your regulator, you don't have to have multiple insurance policies," he told CBC News.

"Part of what we're doing through this process is putting together a business model for when those efficiencies would kick in and, frankly, what the transition costs are."

A merger could help reduce the price of electricity in Thunder Bay and Kenora, Mace said.

Other utilities examining consolidation

In Friday's press release, Mace was quoted as saying that a number of utilities in Ontario are exploring or actively pursuing consolidation.

"As this complexity continues, larger, better resourced utilities will be better positioned to effectively and efficiently meet the needs of our customers," he added.

The president and CEO of Kenora Hydro also noted that the two companies are already working together on initiatives like smart meters and office support.

"Thunder Bay does our after-hours callouts, we have a joint plan for conservation and demand management and a lot of the administrative functions are handled through Thunder Bay, so anywhere it makes good business sense to share those services, we are currently doing so," said Dave Sinclair.


According to the joint statement, the hydro companies will start analysing the feasibility of a merger and how customers and the municipalities would be affected.

Mace added that there will be public discussions on the proposal, and recommendations are possible by late spring 2017.

Any potential merger must be approved by city councils in both municipalities.

Thunder Bay Hydro employs 130 people and has 50,000 customers, while Kenora Hydro employs 14 people and serves 5,600 customers.

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1.0-SEC-11**Ref: Exhibit One, page 36**

[1, p.36] Please provide evidence to support the statement “In practice, [the IRM] adjustment does not keep up with various costs such as rising salaries and wages, new initiatives and regulatory compliance requirements.”

Thunder Bay Hydro Response:

Thunder Bay Hydro provides the following examples in the table below as evidence of cost increases in excess of the IRM adjustment:

	2014	2015	2016
IRM Adjustment (net)	1.3%	1.4%	1.8%
Negotiated wage rate	2.25%	1.5%	2.0%
OEB Annual Assessment Costs	14.37%	(15.6%)	107.8%



Additional Costs are Recovered through Rates

- 20.97% increase in Annualized Distribution Revenue
 - Budget to Budget 14% due to May 1 effective date
- High increase amount function of COS 4 year cycle
 - Capital spending increases largely unfunded between COS decisions
 - 2017 Residential Distribution Rate +20.9%
 - 2013 Residential Distribution Rate +18.53%

Source: Thunder Bay Newswatch

Infrastructure improvements driving Thunder Bay Hydro bid to increase rates

Infrastructure investments for the future of Thunder Bay Hydro will mean increasing distribution rates, according to the company.

Nov 24, 2016 12:13 AM by: Jon Thompson



Residential Customer

Average 750 kWh / Month



	Current	Proposed	Change
Thunder Bay Hydro	22.52	27.23	4.71
Other Distribution Charges	2.90	1.89	(1.01)
Transmission Charges	8.30	6.52	(1.78)
Sub-Total of Delivery	33.71	35.63	1.92
Regulatory Charges	4.90	4.90	0.00
Electricity (TOU)	83.54	83.54	0.00
Total on Bill Before Taxes	122.16	124.08	1.92
HST	15.88	16.13	.25
TOTAL BILL IMPACT	\$ 138.04	\$ 140.21	\$ 2.17 1.57%

Key Factors

in Requested Rate Increase



Past and Future Investments in End of Life Infrastructure	\$ 2.8 M
New Targeted Maintenance Programs and Increased Forestry Activity	\$ 250 K
Required Move to Monthly Customer Billing	\$ 234 K
Increased Regulatory Expenses	\$ 168 K

Thunder Bay Hydro president Robert Mace answers questions regarding the utility's application to increase distribution rates at a community meeting held at the Oliver Road Community Centre on Wednesday evening.

THUNDER BAY -- Thunder Bay Hydro's top executive says rebuilding infrastructure for the future will mean it will need to increase distribution rates.

The local utility is appealing to the Ontario Energy Board for [permission to increase rates](#) \$4.71 or 1.57 per cent for the average home. If approved, the changes would take effect May 1, 2017.

"The bulk of the increase, our ask, in the rate application relates to investing in our electricity distribution infrastructure. It's the biggest strategic issue we have," said Thunder Bay Hydro president Robert Mace.

Of the \$4.1 million in increased revenue the proposal would bring in, \$2.8 million would be committed to infrastructure.

Mace made his case to the OEB at a public meeting on Wednesday evening, arguing system sustainability depends on having upgraded between 400 and 600 poles per year since 2012 and upgrading over 600 per year next four years.

"Historically, we were behind where we needed to be. If you go back to 2008, we were doing 200 poles. If you keep doing that, the system in 20 years, is going to fall down around your ears," he said.

"We've now gotten past that point. It's not getting older and in fact in that last few years, it's getting younger."

According to the company's [self-reported scorecard](#), Thunder Bay Hydro's cost per customer was \$635 in 2015, having risen from \$577 in 2011.

The OEB sets those annual "adjustment" increases based on inflation and profitability indicies. The "rate" increase for which Thunder Bay Hydro is now applying can be perceived as the first step in the next five-year cycle.

Local distribution rates are currently listed as the fourth lowest in Ontario but they would be among the lower 20th or 25th percentile if the municipality wanted to recover the company's 5.69 per cent profitability, as the city is the company's sole shareholder.

"If we were going to provide a full rate of return to the city, they have somewhere in the neighbourhood of \$26 million debt with us that we don't pay any interest or principle on," Mace said.

"If they wanted that money, we'd have to raise rates to pay for it. As a consequence of the shareholder forgoing their financial return, we have among the lowest distribution rates in Ontario for residential customers."

Only seven members of the public attended Wednesday evening's session and only two registered to speak.

Peter Kresin was among them, claiming delivery charges to his home on the city's southwest side would increase 18 per cent under Thunder Bay Hydro's proposal. He said he has been seeing 10 per cent increases to his bill per year since 2012.

"I've reduced my energy consumption but I'm getting to the point where there's a limit. You can only reduce so much and it doesn't really matter," he said.

"Whatever you reduce, because they're not collecting enough money, they can apply for rate increases to make up the difference. That's the hydro system."

OEB manager of stakeholder relations Sylvia Kovesfalvi said those opinions will be taken into account including those citizens who [submit their testimonies online](#).

"Rarely do utilities get everything they want," she said.

"In 2015, we reviewed 12 cost of service applications and reduced the rate asks by \$50 million."

4.0-SEC-52

[4-SEC-20, Board Presentation] Please show through a numerical calculation that \$2.8 million of the deficiency sought to be recovered in increased rates is the result of the Capital Investment Plan. Please confirm that, at the Community Day, the CEO of the Applicant told customers that \$2.8 million of the rate increase was 68% of the rate increase, and was the result of increased spending on capital assets.

THUNDER BAY HYDRO RESPONSE

Thunder Bay Hydro's statement is supported as follows:

Increases over 2013 Board Approved to support Capital Investment

Depreciation & Loss on Disposal	\$ 356,459
Regulated Return	\$2,028,180
PILs	<u>\$ 403,572</u>
	<u>\$2,788,459 or \$2.8M</u>

Thunder Bay Hydro confirms that the CEO told customers the following:

"We need this increase to pay for:

- Past and Future Investments in end of life infrastructure
 - \$2.8M or 68% of total increase".



Items which Increase to Support Capital Reinvestment

- Increases relative to prior COS Rates
 - Depreciation on capital investments \$653K, 18.9%
 - Increase in return on Debt & Equity \$2M, 58%
- Approx. \$2.8M of total \$4.1M increase related to Capital Investment Plan

4. Generally, do you feel that you receive value for the portion money you pay Thunder Bay Hydro?

Very Satisfied

Somewhat satisfied

Somewhat dissatisfied

Very dissatisfied

Rate Increase

Thunder Bay Hydro has applied to the Ontario Energy Board seeking approval of a rate increase of approximately \$4.71 per month on the average residential customer's bill effective May 1, 2017. This equates to a 20.92% increase. However, because other areas of your hydro bill will be decreasing, Thunder Bay Hydro estimates that this will result in a total bill increase of \$1.92 per month for the average residential bill. The resulting overall increase on the residential bill is 1.57%.

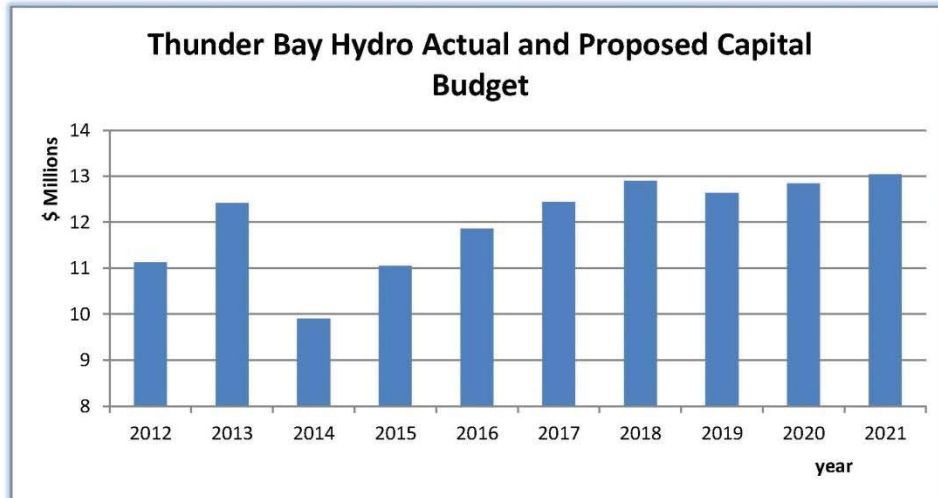
Prior to having these bill impacts available, Thunder Bay Hydro surveyed our residential, small commercial and industrial customers in late 2015 and the early winter of 2016. Because Thunder Bay Hydro has these bill impacts we are resurveying our customers.

The next two sections of this survey will outline the reasons why Thunder Bay Hydro is asking for a rate increase by walking through the cost drivers.

Capital Renewal

Several years ago, Thunder Bay Hydro recognized that a significant portion of its assets (poles, wires, transformers, etc.) were nearing the end or exceeding their useful life. To combat this, Thunder Bay Hydro put in place a capital plan to incrementally increase infrastructure renewal spending in order to ensure that old assets were replaced at a steady and manageable renewal rate. Other portions of the capital budget such as system access and general plant are expected to remain flat.

Thunder Bay Hydro's plan includes an incremental increase in capital renewal spending in 2017. As illustrated in **the graph below**.



Thunder Bay Hydro's system engineers believe that this renewal approach is needed to maintain system performance while keeping bill impacts manageable over the longer-term.

As mentioned previously, **Thunder Bay Hydro** is proposing the **average residential customers' rate increase by approximately \$4.71 per month** on the distribution portion of their bill in 2016. The cost to continue financing this renewal plan makes up approximately **\$2.21** of the proposed increase which is 47% of the proposed distribution rate increase.

5. With regards to projects focused on replacing aging equipment in poor conditions, which of the following statements best represents your point of view?

Thunder Bay Hydro should invest what it takes to replace the system's aging infrastructure to maintain system reliability, even if that increases my monthly electricity bill by a few dollars over the next few years.

Thunder Bay Hydro should lower its investment in renewing the system's aging infrastructure to lessen the impact of any bill increase, even if that means more or longer power outages.

Don't know

No opinion

Operating Maintenance & Administration Costs

The operating costs of Thunder Bay Hydro include costs for operating, maintaining the system and administering the utility, and are comprised of employee wages and benefits, outside services, regulatory costs (including OEB license fees) and other miscellaneous costs (including postage and trucking). As mentioned above, Thunder Bay Hydro is seeking an increase of **\$4.71** per month. The operating cost portion of the increase is approximately **\$1.55** per month, which is 33% of the proposed distribution rate increase.

The operating cost increase is comprised of the following major cost drivers:

First, employee wages and benefits: Thunder Bay Hydro's employees received an inflationary increase in wages. This is approximately \$0.60 per month.

Second, regulatory costs: Thunder Bay Hydro's regulatory costs have increased; largely due to the OEB's increased licensing fees and mandatory monthly billing. This accounts for \$0.40 of the proposed OM&A increase.

Third, outside services: Thunder Bay Hydro has proposed an increase to the tree trimming program and started a new porcelain insulator replacement program. The objective of these programs is to reduce safety risk and increase reliability. This represents \$0.33 of the proposed monthly increase.

Fourth, remaining operating costs: The remaining \$0.22 make up miscellaneous expenses such as trucking and administrative costs.

6. Now that you have a better sense of the operations of Thunder Bay Hydro, including the cost drivers, do you feel the proposed operating budget is reasonable?

Yes

No

I Don't know

Thunder Bay Hydro endeavours to keep operating costs as low as possible. Some of these costs cannot be avoided and must be incurred.

However, there are some costs which Thunder Bay Hydro can be flexible with. For example, the planned tree trimming program can be spread to a seven year program instead of five years. The number of years represents how long it would take Thunder Bay Hydro to complete the entire service area.

Foreign interference and tree contacts accounted for an average of 29% of outages by duration between 2012-2015.

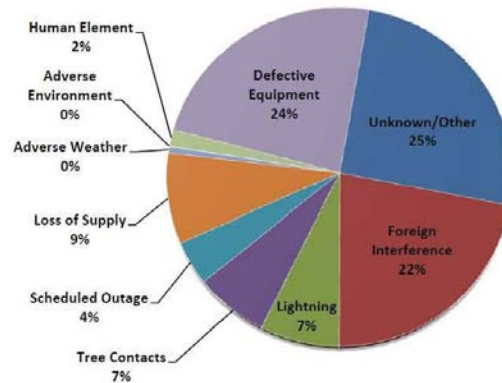


Figure 5.2.3-6 Outage Causes by Duration 2012-2015

Moving from 5 to 7 years tree trimming cycle would lower the impact of the program from \$0.33 per month to \$0.28 per month for the average residential customer; however it may also increase the risk of increased outages caused by tree contacts.

Thunder Bay Hydro engineers believe a 5 year program is the right approach – to balance the rate increase against the risk of increased outages. But we want to know what you think.

7. Would you like to see the tree trimming program done over five years, as proposed, or over seven years ?

I support Thunder Bay Hydro's proposed 5 year tree trimming program.

I prefer a 7 year tree trimming program, which will help lower my rates, but could result in increased outages due to foreign interferences and tree contacts in my service area.

No opinion.

8. The remaining \$0.22 per customer per month represents normal inflationary costs for things like trucking, IT equipment and other administrative costs. Do you feel that this increase is:

Reasonable

Unreasonable

I Don't know

To recap, Thunder Bay Hydro has applied for a \$4.71 increase to the distribution portion of the residential bill. Again, the distribution portion of the residential bill represents approximately 16% of the total bill. In terms of the entire electricity bill, Thunder Bay Hydro estimates that the average

residential customer will end up paying \$1.92 per month more in 2017, as other portions of the bill are forecasted to come down next year.

10. Considering the costs of Thunder Bay Hydro's application, would you say

The rate increase is reasonable

I don't like it, but I think the rate increase is necessary

The rate increase is unreasonable

I Don't know

SEGMENTATION

These last few questions are for statistical purposes only and we remind you again that all of your responses are completely confidential.

AGE: Can you tell me what age category do you fall into?

Less than 18 0

18-25 1

25-34 2

35-44 3

45-54 4

55-64 5

65 years or older 6

Prefer not to answer

11. Do you own or rent your home?

Own

Rent

Prefer not to answer

12. How would you describe your primary residence? Would you say you live in

A fully-detached home;

A semi-detached home;

An apartment or condo building **less than 5 stories;**

An apartment or condo building **5 stories or higher?**

Prefer not to answer

13. Counting yourself, how many people live in your household?

1 person

2---7 people

8 or more people

Prefer not to answer

2.0-SEC-45

[2-VECC-4] Please confirm that, as a result of the reduction in working capital allowance, driven largely by the move to monthly billing, the working capital included in rate base for the test year is lower by \$7.39 million, and the revenue requirement is reduced by \$349,512 (at 4.73% WACC) plus the PILs associated with the equity component, about \$93,517, for a total of \$443,029. Please explain why, at the Community Day, the President of the Applicant told customers that \$234,000 of the reason for the rate increase was the OEB's requirement to go to monthly billing, but did not mention the \$443,029 offsetting rate reduction from the same cause.

THUNDER BAY HYDRO RESPONSE

Thunder Bay Hydro was addressing the OM&A cost drivers in the presentation. OM&A postage cost increase was \$234K and the most significant driver of this was the transition to monthly billing. See also response to 4.0-SEC-54.

Thunder Bay Hydro agrees that the change in the working capital factor resulted in a reduction of \$443,029 in Distribution Revenue; however, this was not relevant to the discussion of the OM&A Cost Drivers.

4.0-SEC-51

[4-SEC-20, Board Memo] Please confirm that the Board of Directors of the Applicant has not yet approved the operating and capital budgets contained in the Application. Please confirm that, by reason of statements at page 6 of the Report to the Board of Directors, it is expected that the actual spending by the Applicant in the test year is forecast to be based on a deficiency of about two-thirds of the deficiency included in the Applicant (i.e. a 14.1% increase in revenues rather than a 20.97% increase in revenues).

THUNDER BAY HYDRO RESPONSE

Thunder Bay Hydro confirms that the Board of Directors has approved the 2017 Provisional Capital and Operating budgets contained in the Application. Page 6 of the Notes to the Provisional Budget is dealing with Distribution Revenue only and not the 2017 spending. The budget as presented to Thunder Bay Hydro Board of Directors represents the fact that rate increases are effective May 1st and as such, 2017 results will in fact be less than what is filed as part of the COS process which requires calendar year assumptions

4.0-SEC- 20**Ref: Exhibit Four, page 5**

[4, p. 5] The Applicant describes the normal budget process in a non-rate-application year, and how the process differed due to the rate application in 2016. Please confirm that an operating budget is not being approved by the board of directors in Q4 of 2016. If that is not confirmed, please provide the operating budget actually approved by the board of directors for 2017, and the materials provided to the board of directors by management in the process of obtaining that approval.

Thunder Bay Hydro Response:

Thunder Bay Hydro Board of Directors did not approve an operating budget, but rather have approved a Provisional Budget. Please refer below to President's Report to the Board of Directors; 2017 Provisional Capital and Operations Budget and COS Application – Impacts on 2017 Budget - Nov 22 2016



PRESIDENT'S REPORT to the Board of Directors

Item No. 2016 D5.5

Corporate Division: Distribution Company

Preparation Date: November 15, 2016

Board Meeting Date: November 22, 2016

Subject: **2017 PROVISIONAL CAPITAL & OPERATIONS BUDGET**

Purpose of Report

Attached for the Board's information is the 2017 Capital and Operations Budget package which supports the utility's 2017 Cost of Service Distribution Rate Application.

Comments

Under normal circumstances the Board approves the budget late in the year for the following year. After approval, the budgeted expenditure levels do not change without subsequent Board approval. However, in years when the utility is filing a Cost of Service (COS) Distribution Rate Application with the Ontario Energy Board, a change to this process is required.

Due to the COS application process, the budget being presented should be considered as a provisional budget. The expenditures budget as presented has been included in the COS application as support for our requested rates. As the Board is aware from our previous 2013 COS decision, there is a high probability that the rate decision we receive from the regulator will necessitate changes to both the revenue and expenditure budgets for 2017. It is anticipated that not all of the budgeted expenditures reflected in the budget will be approved in the rate decision. As such, there is little to be gained from a thorough review and formal approval of the attached budget package.

The 2017 COS decision is not expected until sometime next spring. In the likely event that the decision requires revisions to 2017 expenditures, a revised budget

Page 1

which reflects these revisions will be provided to the Board for review and formal approval.

The Board should also be aware that while the Operations budget does contain a line item for Distribution Revenue, this line item is ultimately what will be decided by the COS decision. The post COS decision budget to be provided later will reflect for the Board the actual impact of the OEB decision

Normally the President leads the Board through a discussion which outlines factors that have influenced the budget, discusses the link between previous Board decisions and strategy to the budget, and compares key components of the current budget to the previous year's budget. This discussion will be undertaken at a future Board meeting once the COS decision has been received and the budget package has been adjusted.

Although the Board is not being asked to formally approve the 2017 Capital and Operating budget at this time, technically management has no authority to expend financial resources in 2017 without prior Board approval. As such, the Board will be asked to consider a resolution granting management the authority to expend resources at a level consistent with the approved 2016 Budget adjusted for inflationary increases. Such approval will be replaced with a formal 2017 Budget approval once the COS decision is received and an adjusted budget package is considered by the Board.

An alternative course of action would be to approve the Budget package as presented, with the condition that a revised budget package be presented for Board approval once the COS decision is received. However, the President feels that approving a lower overall level of provisional expenditures and potentially adjusting the budget upward at a later date is the more prudent option.

In lieu of a full budget presentation at the upcoming Board meeting, the President will present the Board with an overview of items in the budget which are likely to attract the interest of the regulator in the COS process.

As always, if any Directors require additional information or have any questions on this item they should not hesitate to contact me directly.

Attachments

1. 2017 Capital and Operations Budgets
2. COS Application – Impact on Budget (Presentation)

Recommendations

THAT, the Board of Directors approves a provisional level of Capital and Operating expenditures for 2017 that are consistent with inflation adjusted Board approved 2016 Budget amounts. Such provisional approval shall be replaced with Board approval of 2017 Capital and Operating budgets once the 2017 Cost of Service Distribution Rate Decision is received from the Ontario Energy Board.

Respectfully Submitted: Robert Mace, MBA
President & CEO

Signature:



SHAREHOLDER DECLARATION

This Declaration is made as of May 18, 2011, by THE CORPORATION OF THE CITY OF THUNDER BAY, in its capacity as the sole shareholder of Thunder Bay Hydro Corporation. It restates, amends and replaces the original shareholder declaration passed as of October 30, 2000.

RECITALS:

- (a) Each of Thunder Bay Hydro Corporation (the "Corporation"), Thunder Bay Hydro Electricity Distribution Inc. ("DistributionCo"), Thunder Bay Utility Service Inc. ("ServiceCo") and Thunder Bay Renewable Power Inc. ("PowerCo") is a corporation formed under the Ontario Business Corporations Act ("OBCA").
- (b) DistributionCo, PowerCo and ServiceCo are referred to, collectively, in this shareholder Declaration as the "Subsidiary Companies". The Corporation and the Subsidiary Companies are jointly referred to as "Thunder Bay Hydro" and/or "the Thunder Bay Hydro Group of Companies".
- (c) The Corporation of the City of Thunder Bay (the "Shareholder") is the beneficial owner of all the issued shares of the Corporation and the Corporation is the beneficial owner of all the issued shares of the Subsidiary Companies.
- (d) The Corporation and DistributionCo are the successors to the business of the historic Hydro Electric Commission of Thunder Bay. They inherited this business in 2000, at the time that each was incorporated.
- (e) The Shareholder wishes to establish certain principles of governance and to outline its expectations and objectives relating to the Thunder Bay Hydro Group of Companies".

NOW THEREFORE THIS DECLARATION WITNESSES:

SECTION ONE: INTERPRETATION

- 1.1 **Definitions:** Wherever a term set out below appears in the text of this Declaration with its initial letter capitalized, the term shall have the meaning set out for it in this Section 1.1. Wherever a term below appears in the text of this Declaration in regular case, it shall be deemed to have the meaning ordinarily attributed to it in the English language in this Declaration:
- (a) *Board* means the board of directors of the Corporation or any Subsidiary.
 - (b) *Business* means the businesses carried on by the Corporation and the Subsidiary Companies as at May 18, 2011.
 - (c) *Business Review* has the meaning given to it in Section 5.1.
 - (d) *City Manager* means the person employed by the Shareholder with this title, or, should the title change, the person employed by the Shareholder whose duties equate to those of the City Manager as of May 18, 2011.

- (e) *Corporation* has the meaning given to it in Recital (a).
 - (f) *Corporation Board* means the board of directors of the Corporation.
 - (g) *Declaration* means this shareholder declaration including its recitals and schedules, as amended, supplemented or restated from time to time.
 - (h) *DistributionCo* has the meaning given to it in Recital (a).
 - (i) *DistributionCo Board* means the board of directors of DistributionCo.
 - (j) *Lien* means lien, mortgage, charge, hypothec, encumbrance, security interest, pledge, hypothecation, deposit arrangement, priority, conditional sale agreement, other title retention agreement or other security arrangement of any kind that secures the payment of any indebtedness or liability or the observance or performance of any obligation.
 - (k) *OBCA* means the *Business Corporations Act*, R.S.O. 1990, c. B.16, as amended from time to time, including successor legislation.
 - (l) *PowerCo* has the meaning given to it in Recital (a).
 - (m) *Rate Minimization Model* means a Shareholder philosophy of minimizing electricity rates for customers of DistributionCo by having these rates reflect the Shareholder forgoing its allowable regulated return on shareholder equity from DistributionCo and forgoing payment of interest or principal on long term debt held in DistributionCo by the Shareholder.
 - (n) *Shareholder* means The Corporation of the City of Thunder Bay, its successors and assigns.
 - (o) *Shareholder Representative* has the meaning given to it in Section 3.2.
 - (p) *ServiceCo* has the meaning given to it in Recital (a).
 - (q) *Subsidiary* means, with respect to the Corporation, any corporate or other entity of which more than 50% of the outstanding securities of any class carrying exercisable voting rights are beneficially owned, directly or indirectly, by the Corporation, and includes any corporate or other entity in like relation to a Subsidiary.
 - (r) *Subsidiary Companies* means DistributionCo, PowerCo and ServiceCo.
 - (s) *Thunder Bay Hydro* means the Corporation, the Subsidiary Companies, and any other Subsidiaries formed or acquired from time to time.
- 1.2 **Headings:** The division of this Declaration into sections and the insertion of headings are for convenience or reference only and are not to affect the construction or interpretation of this Declaration.
- 1.3 **Interpretation Rules:** Unless otherwise specified, words importing the singular include the plural and vice versa, and words importing gender include all genders. The term “including” means “including without limitation”.

- 1.4 **Statutory References:** Each reference to a provincial statute in this Declaration is deemed to be a reference to that statute, and to all regulations made under that statute, in either case, as amended or re-enacted from time to time.
- 1.5 **Conflict:** If there is a conflict between the provisions of this Declaration and the articles or by-laws of any of the Hydro Group of Companies, the provisions of this Declaration shall prevail and such articles and by-laws shall be amended accordingly. If there is conflict between any provision of this Declaration and any other document contemplated by or delivered under or in connection with this Declaration, the relevant provision of this Declaration is to prevail.
- 1.6 **Unanimous Shareholder Agreement:** This Declaration is a unanimous shareholder agreement within the meaning of the OBCA. To the extent that this Declaration specifies that any matter may only be or shall be dealt with or approved by or requires action by the Shareholder, the powers of the Board to manage and supervise the management of the business and affairs of the relevant corporation with respect to those matters are correspondingly restricted.

SECTION TWO	BUSINESS AND GOVERNING PRINCIPLES
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- 2.1 **Business:** Subject to the approvals and restrictions set out in this Declaration, Thunder Bay Hydro may engage in such business activities as are permitted by applicable law from time to time, including the *Energy Competition Act, 1998* and the *Green Energy Act*. In particular, the business activities of DistributionCo shall include distributing electricity and such other incidental and ancillary activities as are permitted by law and approved by the Shareholder from time to time. For clarity, any restrictions, approvals or consents imposed or required by this Declaration on or by the Shareholder regarding Thunder Bay Hydro shall be deemed to have been met or given by the Shareholder if the action is required to be undertaken by applicable legislation or regulation governing the business of Thunder Bay Hydro.
- 2.2 **Governing Principles:** Except as may be amended by the Shareholder from time to time, the principles in this Section 2.2 will govern the operations and affairs of Thunder Bay Hydro.
 - (a) DistributionCo shall be operated in accordance with the Rate Minimization Model.
 - (b) The business and affairs of Thunder Bay Hydro shall at all times be conducted on a commercially prudent basis and in a manner consistent with the energy policies and financial performance objectives established by the Shareholder from time to time.
 - (c) Thunder Bay Hydro shall provide, through DistributionCo, a reliable, effective and efficient electricity distribution system.

- (d) Distribution rates to customers of DistributionCo shall be set by the DistributionCo Board in accordance with the best interests of DistributionCo and the directives of the Shareholder.
 - (e) The Business shall at all times be conducted in accordance with all applicable law and the licenses, codes, policies, rules, orders, approvals and consents of every governmental or regulatory authority having jurisdiction over Thunder Bay Hydro.
 - (f) Thunder Bay Hydro shall operate in a safe and environmentally responsible manner and shall promote energy conservation and environmental responsibility, subject to any provision, limitation or restriction imposed by legislation, regulation or order.
 - (g) Thunder Bay Hydro shall maintain a prudent financial structure for the Corporation and its Subsidiaries which is consistent with sound financial principles and is established on the basis that these entities are intended to require no additional investment by the Shareholder, except where the Shareholder otherwise determines.
 - (h) Thunder Bay Hydro shall develop, maintain and implement appropriate risk management strategies and internal controls consistent with industry norms to properly minimize and manage all risks related to its Business.
 - (i) Thunder Bay Hydro shall develop a long range strategic plan for the Corporation and its Subsidiaries which is consistent with the maintenance of a viable business and preserves the value of its Business.
- 2.3 **Implementation:** The Boards, with specific direction from the Shareholder as and when determined by the Shareholder from time to time, shall be responsible for determining and implementing the appropriate balance among the principles in Section 2.2, and the respective Boards shall be responsible for causing each of the Thunder Bay Hydro Group of Companies to conduct its affairs in accordance with those principles.

SECTION THREE: THE BOARDS OF DIRECTORS

- 3.1 **Duties of the Boards** Subject to this Declaration and those matters requiring approval of the Shareholder as set out in it, the Boards of each of the respective Thunder Bay Hydro Group of Companies will supervise the management of the business and affairs of the relevant corporation, including the specific matters set out in this Section 3.1.
- (a) Each Board shall establish appropriate reserves consistent with sound financial principles and objectives set out in this Declaration.
 - (b) Each Board shall approve any dividend payment or distribution of capital, in accordance with this Declaration or other direction of the Shareholder.
 - (c) Each Board shall select bankers and other financial institutions and establish required banking authorities.



Revenue Requirement Workform (RRWF) for 2017 Filers

Capitalization/Cost of Capital

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
		Initial Application			
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$62,830,836	2.10%	\$1,317,699
2	Short-term Debt	4.00%	\$4,487,917	1.65%	\$74,051
3	Total Debt	60.00%	\$67,318,753	2.07%	\$1,391,750
	Equity				
4	Common Equity	40.00%	\$44,879,168	9.19%	\$4,124,396
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$44,879,168	9.19%	\$4,124,396
7	Total	100.00%	\$112,197,921	4.92%	\$5,516,146
		Interrogatory Responses			
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$61,923,526	2.05%	\$1,271,826
2	Short-term Debt	4.00%	\$4,423,109	1.76%	\$77,847
3	Total Debt	60.00%	\$66,346,635	2.03%	\$1,349,673
	Equity				
4	Common Equity	40.00%	\$44,231,090	8.78%	\$3,883,490
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$44,231,090	8.78%	\$3,883,490
7	Total	100.00%	\$110,577,725	4.73%	\$5,233,162
		Per Board Decision			
		(%)	(\$)	(%)	(\$)
	Debt				
8	Long-term Debt	56.00%	\$56,280,837	2.10%	\$1,180,332
9	Short-term Debt	4.00%	\$4,020,060	1.65%	\$66,331
10	Total Debt	60.00%	\$60,300,897	2.07%	\$1,246,663
	Equity				
11	Common Equity	40.00%	\$40,200,598	9.19%	\$3,694,435
12	Preferred Shares	0.00%	\$ -	0.00%	\$ -
13	Total Equity	40.00%	\$40,200,598	9.19%	\$3,694,435
14	Total	100.00%	\$100,501,495	4.92%	\$4,941,098

Notes



Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Requirement

Line No.	Particulars	Application	Interrogatory Responses	Per Board Decision
1	OM&A Expenses	\$15,729,872	\$15,729,872	\$15,729,872
2	Amortization/Depreciation	\$3,587,236	\$3,604,822	\$3,604,822
3	Property Taxes	\$6,700	\$6,700	\$6,700
5	Income Taxes (Grossed up)	\$403,572	\$264,024	\$264,024
6	Other Expenses	\$ -		
7	Return			
	Deemed Interest Expense	\$1,391,750	\$1,349,673	\$1,246,663
	Return on Deemed Equity	\$4,124,396	\$3,883,490	\$3,694,435
8	Service Revenue Requirement (before Revenues)	<u>\$25,243,526</u>	<u>\$24,838,580</u>	<u>\$24,546,516</u>
9	Revenue Offsets	\$1,247,451	\$1,445,060	\$ -
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	<u>\$23,996,074</u>	<u>\$23,393,520</u>	<u>\$24,546,516</u>
11	Distribution revenue	\$23,996,075	\$23,393,520	\$23,393,520
12	Other revenue	\$1,247,451	\$1,445,060	\$1,445,060
13	Total revenue	<u>\$25,243,526</u>	<u>\$24,838,580</u>	<u>\$24,838,580</u>
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u>\$0</u> ⁽¹⁾	<u>\$ -</u> ⁽¹⁾	<u>\$292,065</u> ⁽¹⁾

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application	Interrogatory Responses	Δ% ⁽²⁾	Per Board Decision	Δ% ⁽²⁾
Service Revenue Requirement	\$25,243,526	\$24,838,580	(\$0)	\$24,546,516	(\$1)
Grossed-Up Revenue					
Deficiency/(Sufficiency)	\$4,132,757	\$3,530,203	(\$0)	\$3,169,975	(\$1)
Base Revenue Requirement (to be recovered from Distribution Rates)	\$23,996,074	\$23,393,520	(\$0)	\$24,546,516	(\$1)
Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement	\$4,132,757	\$3,530,203	(\$0)	\$ -	(\$1)

Notes

- (1) Line 11 - Line 8
(2) Percentage Change Relative to Initial Application



Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Deficiency/Sufficiency

Line No.	Particulars	Initial Application		Interrogatory Responses		Per Board Decision	
		At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1	Revenue Deficiency from Below		\$4,132,757		\$3,530,203		\$3,169,975
2	Distribution Revenue	\$19,863,318	\$19,863,318	\$19,863,318	\$19,863,318	\$19,863,318	\$20,223,545
3	Other Operating Revenue	\$1,247,451	\$1,247,451	\$1,445,060	\$1,445,060	\$1,445,060	\$1,445,060
	Offsets - net						
4	Total Revenue	\$21,110,769	\$25,243,526	\$21,308,378	\$24,838,580	\$21,308,378	\$24,838,580
5	Operating Expenses	\$19,323,808	\$19,323,808	\$19,341,394	\$19,341,394	\$19,341,394	\$19,341,394
6	Deemed Interest Expense	\$1,391,750	\$1,391,750	\$1,349,673	\$1,349,673	\$1,246,663	\$1,246,663
8	Total Cost and Expenses	\$20,715,558	\$20,715,558	\$20,691,067	\$20,691,067	\$20,588,057	\$20,588,057
9	Utility Income Before Income Taxes	\$395,211	\$4,527,968	\$617,311	\$4,147,514	\$720,321	\$4,250,524
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$3,005,054)	(\$3,005,054)	(\$3,151,196)	(\$3,151,196)	(\$3,151,196)	(\$3,151,196)
11	Taxable Income	(\$2,609,843)	\$1,522,914	(\$2,533,885)	\$996,318	(\$2,430,875)	\$1,099,327
12	Income Tax Rate	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%
13	Income Tax on Taxable Income	(\$691,609)	\$403,572	(\$671,480)	\$264,024	(\$644,182)	\$291,322
14	Income Tax Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Utility Net Income	\$1,086,819	\$4,124,396	\$1,288,791	\$3,883,490	\$1,364,503	\$3,986,500
16	Utility Rate Base	\$112,197,921	\$112,197,921	\$110,577,725	\$110,577,725	\$100,501,495	\$100,501,495
17	Deemed Equity Portion of Rate Base	\$44,879,168	\$44,879,168	\$44,231,090	\$44,231,090	\$40,200,598	\$40,200,598
18	Income/(Equity Portion of Rate Base)	2.42%	9.19%	2.91%	8.78%	3.39%	9.92%
19	Target Return - Equity on Rate Base	9.19%	9.19%	8.78%	8.78%	9.19%	9.19%
20	Deficiency/Sufficiency in Return on Equity	-6.77%	0.00%	-5.87%	0.00%	-5.80%	0.73%
21	Indicated Rate of Return	2.21%	4.92%	2.39%	4.73%	2.60%	5.21%
22	Requested Rate of Return on Rate Base	4.92%	4.92%	4.73%	4.73%	4.92%	4.92%
23	Deficiency/Sufficiency in Rate of Return	-2.71%	0.00%	-2.35%	0.00%	-2.32%	0.29%
24	Target Return on Equity	\$4,124,396	\$4,124,396	\$3,883,490	\$3,883,490	\$3,694,435	\$3,694,435
25	Revenue Deficiency/(Sufficiency)	\$3,037,576	\$0	\$2,594,699	\$ -	\$2,329,932	\$292,065
26	Gross Revenue Deficiency/(Sufficiency)	\$4,132,757 ⁽¹⁾		\$3,530,203 ⁽¹⁾		\$3,169,975 ⁽¹⁾	

Notes:

⁽¹⁾ Revenue Deficiency/Sufficiency divided by (1 - Tax Rate)

CITY MANAGER'S OFFICE

Tel: (807) 625-2224
Fax: (807) 623-1164

February 7, 2017

DELIVERED BY EMAIL

Mr. Robert Mace
President
Thunder Bay Hydro
34 Cumberland Street N Suite 101
Thunder Bay ON P7A 4L4

Dear Mr. Mace:

Re: Clarification concerning the *Rate Minimization Model* in the Shareholder Declaration governing Thunder Bay Hydro Corporation and its subsidiaries made as of May 18, 2011

We understand that a question relating to the interpretation of the shareholder declaration governing Thunder Bay Hydro Corporation and its subsidiaries made as of May 18, 2011 (the "**Shareholder Declaration**") has arisen in the context of the Thunder Bay Hydro Electricity Distribution Inc. ("**Thunder Bay Hydro**") 2017 rate application that was filed with the Ontario Energy Board on September 9, 2016 (the "**Application**").

Relevant excerpts from the Shareholder Declaration are included as Appendix "A" to this letter.

We have reviewed an interrogatory question and response labelled as 5.0-SEC-32 which arose during the discovery phase of the Application, which we have attached as Appendix "B" to this letter.

I would like to clarify the views of the Corporation of the City of Thunder Bay (the "**City**") that no amendments to the Shareholder Declaration are required to allow for the inclusion of the full ROE in rates to fund retained earnings, as described in the Application. You may file this letter on the public evidentiary record in connection with the Application if you deem it appropriate.

In particular:

1. Section 2.2 of the Shareholders' Declaration establishes the principles that will govern the operations and affairs of Thunder Bay Hydro.
2. Subsection (a) of the governing principles stipulates that Thunder Bay Hydro shall be operated in accordance with the Rate Minimization Model.
3. Rate Minimization Model is defined in Section 1.1(m) to mean "*a Shareholder philosophy of minimizing electricity rates for customers of DistributionCo by having these rates reflect the Shareholder forgoing its allowable regulated return on shareholder equity from*

DistributionCo and forgoing payment of interest or principal on long term debt held in DistributionCo by the Shareholder.”

4. Pursuant to the Rate Minimization Model, and subject to Section 6.1 of the Shareholder Declaration, the City of has voluntarily agreed to forego its entitlement to:
 - a. receive dividends (*“the Shareholder forgoing its allowable regulated return on shareholder equity from DistributionCo”*); and
 - b. be paid for interest or principal on its long term debt (*“forgoing payment of interest or principal on long term debt held in DistributionCo by the Shareholder”*).
5. The City does not view the Shareholder Declaration as prohibiting Thunder Bay Hydro from seeking to include in rates the full allowed ROE that is permitted by the Ontario Energy Board for the purposes of financing retained earnings and supporting the funding of necessary capital investments in the system as proposed in the Application.
6. Thunder Bay Hydro’s request to include in rates the full allowed ROE is, in the view of the City, consistent with the obligation to maintain a prudent financial structure which is consistent with sound financial principles as stipulated in Section 2.2(g) of the Shareholder Declaration, which provides: *“Thunder Bay Hydro shall maintain a prudent financial structure for the Corporation and its Subsidiaries which is consistent with sound financial principles and is established on the basis that these entities are intended to require no additional investment by the Shareholder, except where the Shareholder otherwise determines.”*
7. Thunder Bay Hydro’s request to include in rates the full allowed ROE is, in the view of the City, consistent with the ongoing obligation to perform all maintenance and capital work necessary to maintain a safe and reliable electricity distribution system as stipulated in Section 2.2(c) of the Shareholder Declaration, which provides: *“Thunder Bay Hydro shall provide, through DistributionCo, a reliable, effective and efficient electricity distribution system.”*
8. Finally, Thunder Bay Hydro’s request to include in rates the full allowed ROE is, in the view of the City, consistent with the obligation to conduct the business and affairs of Thunder Bay Hydro on a commercially prudent basis as stipulated in Section 2.2(b) of the Shareholder Declaration, which provides: *“The business and affairs of Thunder Bay Hydro shall at all times be conducted on a commercially prudent basis and in a manner consistent with the energy policies and financial performance objectives established by the Shareholder from time to time.”*

Sincerely,

The Corporation of the City of Thunder Bay


Norm Gale, City Manager

I have authority to bind the City

Appendix “A”

Excerpts from the Shareholder Declaration made as of May 18, 2011 governing Thunder Bay Hydro Corporation (the “Corporation”) and its subsidiaries including Thunder Bay Hydro Electricity Distribution Inc. (“DistributionCo”), Thunder Bay Utility Services Inc. (“ServiceCo”) and Thunder Bay Renewable Power Inc. (“PowerCo”):

1.1 Definitions: Wherever a term set out below appears in the text of this Declaration with its initial letter capitalized, the term shall have the meaning set out for it in this Section 1.1. Wherever a term below appears in the text of this Declaration in regular case, it shall be deemed to have the meaning ordinarily attributed to it in the English language in this Declaration:

[...]

(m) *Rate Minimization Model* means a Shareholder philosophy of minimizing electricity rates for customers of DistributionCo by having these rates reflect the Shareholder forgoing its allowable regulated return on shareholder equity from DistributionCo and forgoing payment of interest or principal on long term debt held in DistributionCo by the Shareholder.

[...]

2.2 Governing Principles Except as may be amended by the Shareholder from time to time, the principles in this Section 2.2 will govern the operations and affairs of Thunder Bay Hydro.

- (a) DistributionCo shall be operated in accordance with the Rate Minimization Model.
- (b) The business and affairs of Thunder Bay Hydro shall at all times be conducted on a commercially prudent basis and in a manner consistent with the energy policies and financial performance objectives established by the Shareholder from time to time.
- (c) Thunder Bay Hydro shall provide, through DistributionCo, a reliable, effective and efficient electricity distribution system.
- (d) Distribution rates to customers of DistributionCo shall be set by the DistributionCo Board in accordance with the best interests of DistributionCo and the directives of the Shareholder.
- (e) The Business shall at all times be conducted in accordance with all applicable law and the licenses, codes, policies, rules, orders, approvals and consents of every governmental or regulatory authority having jurisdiction over Thunder Bay Hydro.
- (f) Thunder Bay Hydro shall operate in a safe and environmentally responsible manner and shall promote energy conservation and environmental responsibility, subject to any provision, limitation or restriction imposed by legislation, regulation or order.
- (g) Thunder Bay Hydro shall maintain a prudent financial structure for the Corporation and its Subsidiaries which is consistent with sound financial principles and is established on the basis that these entities are intended to require no additional investment by the Shareholder, except where the Shareholder otherwise determines.

- (h) Thunder Bay Hydro shall develop, maintain and implement appropriate risk management strategies and internal controls consistent with industry norms to properly minimize and manage all risks related to its Business.
- (i) Thunder Bay Hydro shall develop a long range strategic plan for the Corporation and its Subsidiaries which is consistent with the maintenance of a viable business and preserves the value of its Business.

Appendix “B”

5.0-SEC-32

See attached.

5.0-SEC-32**Ref: Exhibit Five, page 6**

[5, p. 6] The Rate Minimization Model, which binds the board of directors of the Applicant through the Shareholder Declaration, prohibits the inclusion in rates of the “allowable regulated return on shareholder equity”. The current Application seeks to include in rates the full allowed ROE. Please provide the amendment to the Shareholder Declaration, or other documentary evidence, showing that the City of Thunder Bay has legally modified the Rate Minimization Model to allow the inclusion in rates of full ROE. If no such documentary evidence is available, please provide evidence that the Applicant has the legal authority under its constating documents to seek approval for inclusion of full ROE in its rates starting in 2017.

Thunder Bay Hydro Response:

No amendments to the Shareholder Declaration are required to allow for the inclusion of the full ROE in rates as set out in the Application.

The Rate Minimization Model is one of the principles stipulated in Section 2.2 of the Shareholder Declaration which Thunder Bay Hydro must comply with.

Rate Minimization Model “means a Shareholder philosophy of minimizing electricity rates for customers of DistributionCo by having these rates reflect the Shareholder forgoing its allowable regulated return on shareholder equity from DistributionCo and forgoing payment of interest or principal on long term debt held in DistributionCo by the Shareholder.”

In simple terms, the Rate Minimization Model prohibits the payment of dividends, interest or principle to the Shareholder. Thunder Bay Hydro is and will comply with the Rate Minimization Model. The Application demonstrates this: Thunder Bay Hydro does not forecast the payment of any dividends, interest or principle to the Shareholder. Doing otherwise would be in violation of the Rate Minimization Model.

However, Section 2.2 the Shareholder Declaration includes other principles that Thunder Bay Hydro must also comply with. For example, Thunder Bay Hydro must operate and maintain a reliable, effective and efficient electricity distribution system; and must maintain a prudent financial structure which is consistent with sound financial principles and is established on the basis that it

will require no additional investment by the Shareholder, except where the Shareholder otherwise determines.

Thunder Bay Hydro has included in its Application a comprehensive five (5) year distribution system plan that details a capital program that is needed to ensure Thunder Bay Hydro can meet its obligation to operate and maintain a reliable, effective and efficient electricity distribution system.

The Application is intended, in part, to fund this capital program. Thunder Bay Hydro has no other way to recover funding for its capital program in rates except through the Board's cost of capital mechanism.

This is why the Application is seeking inclusion of the Board's allowed ROE: these funds are necessary to include in retained earnings to finance the capital program set out in the Application.

Appendix 2-OB Debt Instruments

This table must be completed for all required historical years, the bridge year and the test year.

Year										2017
Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) ²	Interest (\$) ¹	Additional Comments, if any
1	Non-interest bearing Promissory Note	The Corporation of the City of Thunder Bay	Affiliated	Fixed Rate	9-4-13	-	\$ 26,490,500	0.00%	\$ -	Note (1)
2	Credit Facility Agreement	TD Commercial Bank	Third-Party	Fixed Rate	3-7-09	15	\$ 4,822,104	5.27%	\$ 254,125	
3	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	17-6-13	30	\$ 5,424,319	4.04%	\$ 219,142	
4	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	15-10-14	30	\$ 5,926,275	3.96%	\$ 234,680	
5	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	15-3-16	30	\$ 3,963,384	3.75%	\$ 148,627	
6	Promissory Note	Unknown	Third-Party	Fixed Rate	15-9-16	30	\$ 2,995,468	3.88%	\$ 116,224	Infrastructure Ontario Lending Rate posted as at May 5th 2016.
7	Promissory Note	Unknown	Third-Party	Fixed Rate	1-4-17	30	\$ 2,783,167	3.72%	\$ 103,534	Construction draw January 2, 2017, with debenture to be April 1, 2017.
Total							\$ 52,405,217	2.05%	\$ 1,076,333	
SB = 0							\$ 0	\$ 0	\$ 0	

Year										2018
Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) ²	Interest (\$) ¹	Additional Comments, if any
1	Non-interest bearing Promissory Note	The Corporation of the City of Thunder Bay	Affiliated	Fixed Rate	9-4-13	-	\$ 26,490,500	0.00%	\$ -	Note (1)
2	Credit Facility Agreement	TD Commercial Bank	Third-Party	Fixed Rate	3-7-09	15	\$ 5,326,206	5.27%	\$ 280,691	
3	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	17-6-13	30	\$ 5,537,074	4.04%	\$ 223,698	
4	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	15-10-14	30	\$ 6,095,703	3.96%	\$ 241,390	
5	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	15-3-16	30	\$ 4,000,000	3.75%	\$ 118,350	
6	Promissory Note	Unknown	Third-Party	Fixed Rate	15-9-16	30	\$ 3,594,562	3.58%	\$ 128,685	Infrastructure Ontario Lending Rate posted as at May 5th 2016.
Total							\$ 51,044,045	1.95%	\$ 992,814	

Year										2015
Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) ²	Interest (\$) ¹	Additional Comments, if any
1	Non-interest bearing Promissory Note	The Corporation of the City of Thunder Bay	Affiliated	Fixed Rate	41-373	-	\$ 26,490,500	0.00%	\$ -	Note (1)
2	Credit Facility Agreement	TD Commercial Bank	Third-Party	Fixed Rate	39-957	15	\$ 5,804,478	5.27%	\$ 305,896	
3	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	41-442	30	\$ 5,645,409	4.04%	\$ 228,075	
4	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	41-927	30	\$ 6,150,000	3.96%	\$ 243,540	
5	Promissory Note	Infrastructure Ontario	Third-Party	Variable Rate	42-109		\$ 4,000,000	1.76%	\$ 70,400	Construction Draw
Total							\$ 48,090,387	1.76%	\$ 847,911	

Year										2014
Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) ²	Interest (\$) ¹	Additional Comments, if any
1	Non-interest bearing Promissory Note	The Corporation of the City of Thunder Bay	Affiliated	Fixed Rate	41-373	-	\$ 26,490,500	0.00%	\$ -	Note (1)
2	Credit Facility Agreement	TD Commercial Bank	Third-Party	Fixed Rate	39-957	15	\$ 6,258,244	5.27%	\$ 329,809	
3	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	41-442	30	\$ 5,749,497	4.04%	\$ 232,280	
4	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	41-927	30	\$ 6,150,000	3.96%	\$ 120,690	Construction draw #1 \$5.5M taken our Feb 3, 2014 and #2 \$650K on October 15, 2014
Total							\$ 44,648,241	1.53%	\$ 682,779	

Year										2013
Row	Description	Lender	Affiliated or Third-Party Debt?	Fixed or Variable-Rate?	Start Date	Term (years)	Principal (\$)	Rate (%) ²	Interest (\$) ¹	Additional Comments, if any
1	Non-interest bearing Promissory Note	The Corporation of the City of Thunder Bay	Affiliated	Fixed Rate	41-373	-	\$ 26,490,500	0.00%	\$ -	Note (1)
2	Credit Facility Agreement	TD Commercial Bank	Third-Party	Fixed Rate	39-957	15	\$ 6,688,761	5.27%	\$ 352,498	
3	Promissory Note	Infrastructure Ontario	Third-Party	Fixed Rate	41-442	30	\$ 5,800,000	4.04%	\$ 117,160	
Total							\$ 38,979,261	1.20%	\$ 469,658	

Notes

(1) Original Note was issued upon incorporation in 2000. The amount was most recently revised April 9, 2013 as \$7M of the shareholder debt was converted to Class A common shares.

1.0-SEC-36

[1-Staff-3] Please explain and quantify how the Rate Minimization Model, as interpreted by Thunder Bay Hydro, has resulted in a reduction in the rates of Ms. Koroscil, Ms. Tessier, Mr. Wojak and Mr. Chiupka. Please disaggregate the impact on their distribution bills of the City's failure to take interest on its note, and its waiver of dividends on its equity.

THUNDER BAY HYDRO RESPONSE

The City's voluntary waiver of interest on debt and its voluntary waiver of dividends on equity results in total estimated savings of approximately \$1.2M. Residential distribution revenue represents approximately 58% or approximately \$676K. This amounts to a monthly saving of \$1.24 for the average residential customer (based on the forecast of 45,489 residential customers).

ER-Staff-79Ref: p. 3

At the above reference, it is stated that:

It is important to note that the final System Renewal budget for 2017 was not directly and exclusively derived from the Health Index distribution in the ACA report (the relationship is described in detail in the body of this report). Furthermore, although condition based needs represent an important input in developing System Investment capital requirements, there are other factors that are taken into account when deciding on appropriate System Renewal level, such as physical obsolescence, functional obsolescence, compliance with standards, municipal initiatives, and corporate considerations, e.g. financial constraints, input from customers, safety and environmental concerns, etc.

- a) Please define each of the above referenced other factors and provide an example of how each has been incorporated into the Thunder Bay Hydro renewal capital expenditures planned for the test year.
- b) Please discuss how physical obsolescence and functional obsolescence, as used in the above statement, should be differentiated from the ACA Health Index distribution.
- c) In Mr. Tsimberg's opinion, did Thunder Bay Hydro sufficiently take both physical and functional obsolescence of assets into account when "deciding on appropriate System Renewal level" as filed in the application?

THUNDER BAY HYDRO RESPONSE

- a) Kinectrics was unable to respond to part (a) without input from Thunder Bay Hydro. This response has been divided between the facts that are being provided by Thunder Bay Hydro, and the responses supplied by Kinectrics, so parties and the OEB can clearly understand where each response is coming from. This approach has been used in other IRRs below where a similar issue arose. The below chart defines each of the referenced 'other factors' and

provides an example of how each was incorporated into the decision making regarding capital expenditures planned for the test year.

Other Factor	Definition	Example of Incorporation
Physical Obsolescence	Occurs when an asset is deteriorated to a point of being at risk of failure.	Proactive asset replacements for wood poles
Functional Obsolescence	Occurs when an asset cannot perform as needed due to system requirements	Voltage conversion projects where replacement of transformers is required to complete the conversion to ultimately decommission the station.
Compliance with Standards	Standards set out by organizations such as CSA, ESA, Measurement Canada, and Environment Canada.	Meter testing program PCB Transformer Replacement program
Municipal Initiatives	City of Thunder Bay capital projects (road widening, infrastructure replacement) and beautification initiatives.	Co-ordinating renewal projects with city projects to avoid costs
Financial Constraints	Limit on the available capital expenditures.	Strategic reduction of the budget to meet the required envelope
Input from Customers	Feedback and comments from customer surveys provided to TBHEDI regarding system planning.	Residential Customers preference for cost minimization reduced the overall budget envelope Commercial Customers

		preference for reliability resulted in modifying the grid modernization plan
Safety Concerns	Reports from staff and the public which affect the health and safety of both internal and external parties.	Increased budget in Lines Safety Reports to handle the backlog of assets identified as safety concerns.
Environmental Concerns	Concerns with equipment negatively impacting the environment	Budget for Transformers and Lines Safety Reports impacted due to remediation costs.

KINECTRICS RESPONSE

- b) ACA Health Index distribution only identifies units that are in bad condition. Units that are physically or functionally obsolete are not necessarily in a bad condition and, thus, sometimes are removed when NOT close to their physical end of life
- c) I have no opinion on this question. The ACA was focused exclusively on condition based needs. I did not examine the system renewal spending from this perspective.

1.0-SEC-38

[1-Staff-8] Please explain the process for determining the “targeted expenditure level” and the “overall financial envelope”.

THUNDER BAY HYDRO RESPONSE

Thunder Bay Hydro has developed a Distribution System Plan. The plan was reviewed by an external consultant (Kinectrics) and recommended spending levels in the various asset categories resulted. Thunder Bay Hydro has not requested capital investment to the level recommended. In consideration of the potential customer rate impact Thunder Bay Hydro has decided to take a more conservative approach and has applied for a lower amount.

1.0-SEC-5

Ref: Exhibit One, page 15

[1, p. 15] The description of the DSP appears to assume that it has not yet been written. Please provide a full chronology of the DSP, including the dates or periods for a) information gathering and research, b) physical inspection of assets, c) developing the DSP plan/strategy, d) first drafts of the DSP document or its components, e) revisions to the document, f) first request for board of directors approval, and g) final approval. If there are any other key milestones in the process (e.g. submission to the City and their approval), please provide those as well.

Thunder Bay Hydro Response:

Thunder Bay Hydro as per the request has provided a chronology of the DSP including dates and milestones in the process. It is also noted that the President provides periodic updates to the Board of Directors regarding progress on strategic initiatives one of which is the Distribution System Plan (DSP).

Chronology of the DSP

01/12-12/15 – Physical Inspection of Assets (1/3 of system is inspected annually)

06/15-03/16 – Information Gathering and Research

10/15 – Customer Engagement interview protocol prepared

10/15 – Initial DSP plan / strategy development preparation

02/16 – Customer Engagement Final report received

03/16/16 - Kinectrics Preliminary ACA

03/31/16 – DSP plan/strategy finalized and discussed with President

03/31/16 – Draft #1

04/11/16 – REG Plan submission to IESO

04/30/16 – Draft #2

05/13/16 – Kinectrics Revised ACA

07/15/16 – Draft #3 provided to BLG for review

08/17/16 - Kinectrics Final ACA received

09/07/16 – Final Document Approved

2.0-SEC-58

[Tsimberg, p. 4] Please confirm that the expert is being qualified as an expert in OEB regulatory requirements. If confirmed, please provide the basis for that qualification. If not confirmed, please explain the evidentiary effect claimed of the “opinion” with respect to compliance with OED requirements.

THUNDER BAY HYDRO RESPONSE

Thunder Bay Hydro management did ask Mr. Tsimberg to express his views on compliance with the Ch. 5 Filing Requirements. It is always beneficial to obtain the views of an experienced third party in this regard. However, Thunder Bay Hydro does not intend to qualify Mr. Tsimberg as an expert in regulatory requirements.

In Thunder Bay Hydro’s view, Mr. Tsimberg’s expertise is in asset management and distribution system planning.

2.0-SEC-59

[Tsimberg, p. 5] Please confirm that Kinectrics is an offshoot of Hydro One, and before that Ontario Hydro. Please provide details of the role the expert Mr. Tsimberg played, if any, in the bankruptcy/insolvency of Ontario Hydro due to its overspending on capital.

KINECTRICS RESPONSE

Kinectrics is not an offshoot of Hydro One.

Kinectrics started as Research Division of Ontario Hydro and after Ontario Hydro was split up became a part of Ontario Power Generation (OPG). OPG then sold Kinectrics to private owners.

Yury Tsimberg is not aware of any bankruptcy/insolvency of Ontario Hydro.

2.0-SEC-60

[Tsimberg, p. 5] Please provide details of the extent, if any, to which the expert Mr. Tsimberg personally reviewed or assessed the distribution system assets of the Applicant. Please include details of all trips the expert made to Thunder Bay to review the assets, and the time spent in each such trip in that type of review. If the expert did not engage personally in a review of the assets, please provide all reports from other people, whether employees of Kinectrics or otherwise, on which Mr. Tsimberg is relying in giving his opinion.

KINECTRICS RESPONSE

Mr. Tsimberg together with his Kinectrics team reviewed TBH's asset categories and available condition data.

Mr. Tsimberg visited TBH on 3 occasions, the first visit for half a day and the last two visits for full day each as follows:

Visit one – November 6, 2015

Reviewed Kinectrics ACA methodology and discuss asset categories to be evaluated

Visit two – January 7, 2016

Kick-off meeting to finalize data categories to be evaluated and assess available data

Visit three – July 13, 2016

ACA results presentation and review by asset category

2.0-SEC-61

[Tsimberg, p. 6] Please provide details of how the HI formulae for the Applicant differs from the HI formulae for other distributors for whom Kinectrics has done the same type of consulting work. For each difference in the formulae, please explain the rationale for the difference, the extent, if any, to which the difference depends on management or engineering judgment by the local LDC personnel, and the impact of the difference on the comparability of results between LDCs.

KINECTRICS RESPONSE

Kinectrics is using the same general formula for all its LDC clients. The differences have to do with available condition data and asset degradation curves. The former is data driven while the latter depends on the engineering judgement by the local LDC personnel, both LDC-specific.

2.0-SEC-62

[Tsimberg, p. 6] Please provide the full HI calculation for the Applicant's assets, as determined by Kinectrics for the purposes of the ACA. Please provide the result in live Excel format, with all formulae live as in the original calculation. Where the calculations draw on source data, please provide the source data, also in live Excel format. Please ensure that the data provided includes the Data Availability Indicator for each asset or group of assets assessed.

KINECTRICS RESPONSE

Kinectrics formulae in "live" format represent Kinectrics developed proprietary IP and, as such, cannot be shared with other parties as this will severely undermine Kinectrics' commercial position. Complete results of the ACA, including DAI are presented in Exhibit 2, Attachment 2-I, Appendix C.

2.0-SEC-76

[Tsimberg, p. 18] Please provide the factual basis on which the expert observed the paragraph commencing “In putting together capital plans...”

KINECTRICS RESPONSE

Contained in DSP included in Exhibit 2, Attachment 2-I.

2.0-SEC-77

[Tsimberg, p. 18] Please provide the factual basis on which the expert observed “Decision making follows the Asset Management Framework”.

KINECTRICS RESPONSE

Through the review of Exhibit 2, Attachment 2-I, DSP Section 5.3 Asset Management Process.

2.0-SEC-78

[Tsimberg, p. 18] Please provide the factual basis on which the expert observed “Existing capital planning process includes prioritization”.

KINETRICS RESPONSE

Through the review of Exhibit 2, Attachment 2-I, DSP, Section 5.4.2.3 “Project Prioritization Tools and Methods”.

ER-AMPCO-35

Ref: Page 18

- a) Does the expert have an opinion on the quality or accuracy of TBHEDI's response to the Chapter 5 requirements?

KINECTRICS RESPONSE

Please see section 7 of the report.

ER-VECC-2

Ref: ACA Report

- a) Please explain the role of Ms. Katrina Lotho in preparing the ACA report and the role of Mr. Tsimberg in reviewing the report.
- b) The ACA methodology requires assessment of condition parameters or asset characteristics. Which author carried or verified the TBH's asset condition testing?
- c) Specifically, which author verified the sample size (shown in Table III-1) and made the "data gap" assessment shown in Table III-4.
- d) Which author inspected the assets characteristics for the assets listed in Table III-1?

THUNDER BAY HYDRO RESPONSE

The Ontario Energy Board stated in Procedural Order No. 5 that (**emphasis added**):

“Intervenors shall request any relevant information and documentation from Thunder Bay Hydro on **the new expert report only**, by written interrogatories filed with the OEB and served on all parties by June 2, 2017.”

VECC does not cite the new expert report in this interrogatory. Rather VECC's questions relate solely to the ACA. The ACA has been on the evidentiary record, and all parties including VECC have had ample opportunity to ask questions about it. Thunder Bay Hydro submits that this interrogatory is in breach of the procedural directions of the Board in Procedural Order No. 5.

Despite this, to the extent additional information may be of assistance to the Ontario Energy Board in its decision making on this case, and to avoid further procedural delays, Thunder Bay Hydro has asked that Kinectrics provide a response to this interrogatory.

KINECTRICS RESPONSE

- a) Katrina Lotho calculated Health Indices of assets using asset data provided by TBH. From the calculated health, the flagged for action plan was found. Katrina Lotho then prepared the ACA report that details the findings. Yury Tsimberg reviewed and approved the methodology (e.g. algorithms, assumptions) and the findings from the study, he was ultimately responsible for the contents of the report and had final sign-off authority.
- b) Katrina Lotho and Yury Tsimberg reviewed the available asset data provided by TBH. The actual methodologies or test procedures used by TBH to gather this provided data was not within the scope of the ACA.
- c) Katrina Lotho determined the sample size. Katrina Lotho made the data gap assessment, and Yury Tsimberg was ultimately responsible for the contents of the report and had final sign-off authority.
- d) Asset Data was provided by Thunder Bay Hydro, Katrina Lotho calculated the Health Index Results contained in Table III-1. Health Index results were based on health index calculations also performed by Katrina Lotho. The input data provided by TBH was not validated or verified by Kinectrics.

AMPCO-29Ref: Page 8

- a) Please summarize the asset failure information collected by TBHEDI
- b) Did the expert review TBHEDI's actual failure data by asset type?
- c) How was actual failure data by asset used to determine the HI scores by asset?
- d) Did the expert review TBHEDI's historical replacement rates? If yes, how was the information used?

THUNDER BAY HYDRO RESPONSE

- a) Asset failure information collected by TBHEDI includes distribution transformers and primary underground cable.

KINETRICS RESPONSE

- b) Yes, for failure information that was provided.
- c) Actual failure information was not used. Typical useful life ranges, estimated by TBH subject matter experts, were used to develop the life curves. These curves are used in scoring criteria for the "age" parameter (defined in the report as each asset class's age criteria).
- d) The ACA is a condition-based assessment. Since historical replacement rates are not necessarily based on condition, they were not considered.

2.0-SEC-69

[Tsimberg, p. 10] Please confirm that the expert did not benchmark the capital spending plans of the Applicant relative to its Asset Condition Assessment to the capital spending plans of other LDCs who have filed ACAs and capital plans. By way of example, to what extent, if any, did the expert assess the FFAP responses of the Applicant relative to similar responses by other LDCs who have also relied on Kinectrics ACA work.

KINECTRICS RESPONSE

Confirmed.

2.0-SEC-75

[Tsimberg, p. 14] Please provide details, including quantification, on how the reduction in corrective O&M has been reflected in the Application for the test year and subsequent years.

KINECTRICS RESPONSE

This is an empirical process and the impact on corrective O&M from the increase in System Renewal investments in linear assets could be estimated by trending the associated corrective O&M annual costs over a period of several years.

4.0-SEC-21**Ref: Exhibit Four, page 8**

[4, p. 8] Please confirm that the increase in OM&A from 2013 to 2017 is forecast to be \$2,496,988 (18.9%, a CAGR of 4.4% per year), not \$1,429,872 (10.0%, a CAGR of 2.4%). Please confirm that the 1.92% figure in the evidence is a miscalculation, based on five years instead of four, and is in any case based on 2013 Board approved rather than actual. Please confirm that the increase in OM&A per customer from 2013 to 2017 is 17.3%, not the 8.38% quoted in the evidence.

Thunder Bay Hydro Response:

The increase of \$1,429,872 refers to the 2013 Board Approved OM&A. Thunder Bay Hydro confirms that the \$2,496,988 is the increase from 2013 Actual OM&A (18.9%, a CAGR of 4.4%) Thunder Bay Hydro confirms that the 1.92% figure is a miscalculation based on 5 years that it should have read 2.41% based on 4 years. Thunder Bay Hydro confirms that the OM&A cost per customer increase from 2013 Actual is 17.3%. Again, the evidence was referring to the 2013 Board Approved.

4.0-SEC-50

[4-AMPCO-23] Please explain why average executive compensation in 2013 went from \$184,835 Board approved to \$194,305 Actual, an increase of 5.1%. Please provide the main reasons why the CAGR of compensation per FTE from 2013 (Actual) to 2017 (Forecast) is 2.55%.

THUNDER BAY HYDRO RESPONSE

Average executive compensation in 2013 increased by 5.1% to \$194,305 from the Board approved average of \$184,835. This occurred because Thunder Bay Hydro, for purposes of internal equity and retention, decided to make all salaries at the VP level the same. Additionally, in 2013 there was a progression increase for one of the VPs.

The main reasons for the CAGR of compensation per FTE from 2013 (Actual) to 2017 (Forecast) being 2.55% are: 1) progression and change in classification increases. Actual progression and change in classification increases from 2013 to 2016 amounted to approximately \$431K; 2) 2013 included a reduction in benefit costs due to the amortization of an actuarial gain on valuation. See Exhibit 4, page 15, line 13; and 3) benefit cost increases in excess of inflation CAGR for Extended Health benefits from 2013 (Actual) to 2016 (Projected) is 6.23%.

OM&A CALCULATIONS
(Includes Property Taxes and LEAP)

SECTION 1	ADJUSTMENTS TO OM&A	<u>2013 BA</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total OM&A		14,300,000	13,232,884	13,822,518	14,244,004	15,414,383	15,729,872
Monthly billing and OEB Assessment		<u>0</u>		<u>0</u>	<u>0</u>	<u>-118,000</u>	<u>-339,000</u>
Adjusted Total		14,300,000	13,232,884	13,822,518	14,244,004	15,296,383	15,390,872
% Increase per Year			-7.46%	4.46%	3.05%	7.39%	0.62%
% Average Annual Compound Increase 2013 to 2017							3.85%
SECTION 2	CUSTOMERS	<u>2013 BA</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Customers		50,003	49,906	50,181	50,373	50,512	50,910
Customer Growth			-0.19%	0.55%	0.38%	0.28%	0.79%
% Average Annual Compound Increase 2013 to 2017							0.50%
SECTION 3	ESCALATORS			<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Inflation (1)				1.70%	1.60%	2.10%	1.90%
Base Productivity				0.00%	0.00%	0.00%	0.00%
Stretch Factor				<u>0.30%</u>	<u>0.30%</u>	<u>0.30%</u>	<u>0.30%</u>
Sub-Total (lines 20 - 21 - 22)				1.40%	1.30%	1.80%	1.60%
Customer Growth - PEG Customer Elasticity	0.4448			<u>0.25%</u>	<u>0.17%</u>	<u>0.12%</u>	<u>0.35%</u>
Total Escalator (lines 20 - 21 - 22 + 24)				1.65%	1.47%	1.92%	1.95%
SECTION 4	OM&A GROWTH AT ESCALATOR		<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Adjusted OM&A Growth - Based on Escalator (line 25) - 2013 Start			13,232,884	13,450,578	13,648,327	13,910,749	14,182,074
Test Year Forecast (line 8)							<u>15,390,872</u>
Test Year Reduction							-1,208,798
Adjusted OM&A Growth - Based on Escalator (line 25) - 2014 Start				13,822,518	14,025,735	14,295,413	14,574,241
Test Year Forecast (line 8)							<u>15,390,872</u>
Test Year Reduction							-816,631
SECTION 5	OM&A EXCESS FROM 2013		<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Approved plus Escalators			14,300,000	14,535,249	14,748,945	15,032,528	
Actual Spending			13,232,884	13,822,518	14,244,004	15,296,383	
Net Excesss			1,067,116	712,731	504,941	-263,855	
Cumulative Excess Collected from Ratepayers			1,067,116	1,779,847	2,284,788	2,020,934	

NOTES

(1) Inflation rates taken from OEB website for each year

Appendix 2-JC OM&A Programs 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- Approved)
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	\$2,188,277	\$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	\$492,555	\$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	\$199,966	\$120,337	\$81,366	\$349,600	\$202,296	\$120,930	\$26,446
Administrative and Human Resources	\$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

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 line 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+12,076/2,080	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+11,346/2,080	5.70

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

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

Scorecard - Thunder Bay Hydro Electricity Distribution Inc.

9/29/2016

Performance Outcomes		Performance Categories	Measures	2011	2012	2013	2014	2015	Trend	Industry	Distributor	Target	
Customer Focus Services are provided in a manner that responds to identified customer preferences.	Service Quality		New Residential/Small Business Services Connected on Time	99.80%	99.10%	99.80%	100.00%	99.90%	<div></div>	90.00%			
			Scheduled Appointments Met On Time	91.90%	99.60%	97.80%	100.00%	99.90%	<div></div>	90.00%			
			Telephone Calls Answered On Time	91.80%	90.10%	91.80%	87.10%	92.40%	<div></div>	65.00%			
Customer Satisfaction			First Contact Resolution				A+	A+					
			Billing Accuracy				99.97%	99.93%	<div></div>	98.00%			
			Customer Satisfaction Survey Results				A	A					
Operational Effectiveness Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	Safety		Level of Public Awareness					82.00%					
			Level of Compliance with Ontario Regulation 22/04	C	C	C	C	C	<div></div>	C		C	
			Serious Electrical Incident Index	0	0	0	0	0	<div></div>	0		0	
System Reliability			Rate per 10, 100, 1000 km of line	0.000	0.000	0.000	0.000	0.000	<div></div>	0.000		0.000	
			Average Number of Hours that Power to a Customer is Interrupted	2.77	1.28	1.03	1.92	2.02	<div></div>	2.02		1.92	
			Average Number of Times that Power to a Customer is Interrupted	3.65	3.12	2.02	2.69	2.39	<div></div>	2.39		3.03	
Asset Management	Cost Control		Distribution System Plan Implementation Progress				On track	On-track					
			Efficiency Assessment		3	3	3	3					
			Total Cost per Customer	\$577	\$568	\$585	\$606	\$635					
Public Policy Responsiveness Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	Conservation & Demand Management		Total Cost per Km of Line	\$24,196	\$24,533	\$25,631	\$26,864	\$27,195				48.42 GWh	
			Net Cumulative Energy Savings						10.92%				
			Renewable Generation Connection Impact Assessments Completed On Time	100.00%	100.00%		100.00%	100.00%					
Financial Performance Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios		New Micro-embedded Generation Facilities Connected On Time			100.00%	100.00%	100.00%	<div></div>	90.00%			
			Liquidity: Current Ratio (Current Assets/Current Liabilities)	1.85	1.72	1.62	1.85	1.61					
			Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio	0.86	0.81	0.66	0.72	0.75					
			Profitability: Regulatory Return on Equity	3.75%	3.75%	7.00%	7.00%	7.00%					
			Achieved	7.24%	7.74%	6.34%	5.99%	5.69%					
<div><div>6</div><div>7</div><div>Legend: 5-year trend up down flat Current year target met target not met</div></div>													
<div><div>1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).</div><div>2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the fixed 5-year (2010 to 2014) average distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.</div><div>3. A benchmarking analysis determines the total cost figures from the distributor's reported information.</div><div>4. The CDM measure is based on the new 2015-2020 Conservation First Framework. This measure is under review and subject to change in the future.</div></div>													

1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).

2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the fixed 5-year (2010 to 2014) average distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.

3. A benchmarking analysis determines the total cost figures from the distributor's reported information.

4. The CDM measure is based on the new 2015-2020 Conservation First Framework. This measure is under review and subject to change in the future.

2015 Scorecard Management Discussion and Analysis (“2015 Scorecard MD&A”)

The link below provides a document titled “Scorecard - Performance Measure Descriptions” that has the technical definition, plain language description and how the measure may be compared for each of the Scorecard’s measures in the 2015 Scorecard MD&A: http://www.ontarioenergyboard.ca/OEB/ Documents/scorecard/Scorecard_Performance_Measure_Descriptions.pdf

Thunder Bay Hydro had a successful year in 2015, meeting and exceeding all but one of the performance targets for the measures which have been established by the Ontario Energy Board (OEB) in this scorecard for the province’s 72 electricity distributors.

Thunder Bay Hydro’s scorecard exemplifies our continuous commitment to strengthen our performance and service to the City of Thunder Bay, and Fort William First Nations customers, particularly in Customer Focus and Operational Effectiveness.

Thunder Bay Hydro in the past has experienced challenges with extreme and unpredictable weather events testing our planning and resources. Although presented with these often unpredictable challenges, Thunder Bay Hydro has maintained a very high level of performance with respect to the service quality provided and customer satisfaction.

Thunder Bay Hydro recently provided the opportunity for consumers to give feedback on the reliability of the Thunder Bay Hydro’s electricity distribution system and the distribution system plan spending decisions over the next five years. Customers responded that **improved system reliability** and **just and reasonable rates** are important to them.

Thunder Bay Hydro will not rest on past successes. The Customer Service standards are demonstrated not only through Thunder Bay Hydro’s scorecard results, but also by the results of a third-party customer survey undertaken in 2015. We are proud of exceeding provincial averages in all areas of this survey, with an overall rating of ‘A’ in customer satisfaction.

In 2016, Thunder Bay Hydro will continue efforts to maintain a high level of achievement on the scorecard performance results, and aim to better scorecard areas which can be identified as improvable compared to prior years.

Service Quality

- **New Residential/Small Business Services Connected on Time – Target Exceeded**

Connections for a new service request for low voltage (<750 volts) are to be completed within five business days from the day on which all applicable service conditions are satisfied.

Over the 2011 to 2015 period, Thunder Bay Hydro has connected on average, 99.7% of our new residential, micro fit, and small business customers on time. This is above the industry standard of 90% for all Distribution Companies in Ontario. In 2015 Thunder Bay Hydro achieved a result of 99.9% new residential/small business services connected.

- **Scheduled Appointments Met On Time - Target Exceeded**

Offers to schedule an appointment must be made within a window of time that is no greater than four hours. The distributor must then arrive for the appointment within the scheduled time frame 90 % of the time on an annual basis.

Thunder Bay Hydro exceeded the industry target and achieved a result of 99.9% in 2015. Thunder Bay Hydro has consistently performed better than the Ontario Energy Board industry quality standard of at least 90% of the time on an annual basis. Thunder Bay Hydro has improved performance over the 2011 to 2015 period by 8%. Rising from 91.9% of scheduled appointments met on time in 2011, to 99.9% in 2015. This increase in scheduled appointments met on time exemplifies the return on improvements made to internal processes. Thunder Bay Hydro aims to meet all new service connections and appointments 100% of the time.

- **Telephone Calls Answered On Time - Target Exceeded**

Calls must be answered within a 30 second window 65% of the time. This measure can be highly influenced by factors such as the amount of power outages in a year, and front line staffing levels, which can fluctuate greatly throughout the year.

Thunder Bay Hydro has consistently performed better than the Ontario Energy Board quality standard of answering 65% of external calls that it receives within 30 seconds. Thunder Bay Hydro set a specific internal company goal intentionally higher than the Ontario Energy Board mandated target as our continued commitment to our customer service quality. The company has set a target rate of 90% of all

calls answered within the 30 second window. For 2015 Thunder Bay Hydro is pleased to report that it achieved a rate of calls answered 92.4% in fewer than 30 seconds. This ensures that Thunder Bay Hydro not only meets the mandated Board target of 65% but that it is exceeded every year by a wide margin.

Customer Satisfaction

- **First Contact Resolution - Industry Target Not Established**

First Contact Resolution is a measure of a distributor's effectiveness at satisfactorily addressing customers' complaints and inquiries. Thunder Bay Hydro aims to minimize and address customer complaints as quickly as possible and at the first point of contact with an employee of the utility. In doing so, the organization tracks and monitors service inquiries.

When a customer contacts Thunder Bay Hydro, they expect to have their issue resolved within one call or interaction. Thunder Bay Hydro recognizes this customer satisfaction measure, and closely monitors the incoming call types and escalations for each customer interaction. Using this knowledge Thunder Bay Hydro is regularly performing internal training for customer service and front line representatives, so as to be able to answer customer inquiries at the first point of contact. Thunder Bay Hydro also finds it extremely effective to update front line staff of industry changes related to billing, industry news, conservation measures, or internal operations so as to quickly and efficiently respond at the first point of contact.

Thunder Bay Hydro has achieved a first contact resolution score of 99.96% inquiries resolved at first point of contact which equates to a high ranking of "A+" on Thunder Bay Hydro's scorecard. An Industry target has not yet been established for distribution companies by the Ontario Energy Board for this scorecard measure.

- **Billing Accuracy - Target Exceeded**

Until July 2014 a specific measurement of billing accuracy had not been previously defined across the industry. After consultation with distributors, the Ontario Energy Board implemented a uniform measure for billing accuracy and subsequently established a 98% target for the measure. Billing Accuracy is calculated as: Percentage of bills inaccurately issued = total number of bills issued for the year - number of inaccurate bills issued for the year / divided by the total number of bills issued for the year.

For the period January 1st 2015 to December 31st 2015 Thunder Bay Hydro issued 352,199 measurable bills and achieved billing accuracy rate of 99.93%. Thunder Bay Hydro performed much better than the Ontario Energy Board prescribed accuracy target of 98%.

Thunder Bay Hydro is committed to providing customers with accurate and timely bills, and aims for this measure to achieve a rating of 100%.

- **Customer Satisfaction Survey Results – Industry Target Not Established**

The Ontario Energy Board introduced the 'Customer Satisfaction Survey Results' measure beginning in 2013. At a minimum distributors are required to measure and report a customer satisfaction result every other year. At this time the OEB is allowing electricity distributors the discretion as to how they implement this measure.

Thunder Bay Hydro's primary objective is to obtain valuable, unbiased, and statistically sound data that will support internal discussions for improving customer care at every level in the company. Thunder Bay Hydro made the executive decision to participate in the 'Utility Pulse 17th Annual Electric Utility Customer Satisfaction Survey', conducted by a 3rd party, 'Utility PULSE'. 'Utility PULSE' then conducted telephone interviews, surveying randomly sampled residential and small to medium sized business customers using a full customer listing supplied to them by Thunder Bay Hydro.

The survey findings covered multiple categories grouped into 3 sections: (1) Customer Care (price and value, customer service), (2) Company Image (company leadership, corporate stewardship) and (3) Management Operations (operational effectiveness, power quality, and reliability). For each of these three performance measures Thunder Bay Hydro has successfully met the provincial average or better in customers' opinion.

The Utility 'PULSE' report card yielded an overall ranking of 'A' for Thunder Bay Hydro in 2015 which is consistent with the ranking of 'A' achieved in the 2014 results. This is an exceptionally satisfying result for Thunder Bay Hydro as the provincial average of other distributors surveyed by 'Utility Pulse' yields a 'B+' ranking.

Thunder Bay Hydro has maintained a very high level of performance with respect to service quality and customer satisfaction results and is consistently seeking improvements and efficiencies.

Public Safety

In 2015, the OEB introduced measures in the Safety performance category for 2014 reporting. The Public Safety measure is generated by the Electrical Safety Authority and is comprised of three components: (A) Public Awareness of Electrical Safety, (B) Compliance with Ontario Regulation 22/04, and (C) Serious Electrical Incident Index. A breakdown of the three components is as follows:

Component A – Public Awareness of Electrical Safety – Distributor Target Met

Introduced to the Scorecard this year, the Public Electrical Safety Awareness survey measures the level of awareness of key electrical safety precautions among the public within the electricity distributor’s service territory. The Ontario Energy Board has indicated that the performance target for public awareness of electrical safety will be established once three years of data is gathered.

To produce a statistically sound survey Thunder Bay Hydro engaged a third party service ‘Utility PULSE’ to perform the Public Awareness of Electrical Safety Report in March 2016. Utility PULSE results are based on a telephone survey (Random Digit Dialing) among 400 members of the general public, 18 years of age or older, within the distributors geographic service territory. The data has been statistically weighted according to Canadian census figures (2011) for age, gender and region.

As a result of the performed survey, Thunder Bay Hydro achieved a Public Safety Awareness Index Score of 82%. The awarded 82% average was determined using an index score calculation from six core measurement questions.

Below are the questions asked to Thunder Bay Hydro region consumers, and non-consumers, and the corresponding knowledge scores;

Safety Question	Customer Response
1) Impact of Touching a Power Line.	98.0% Correct Response, and 2% Incorrect Response
2) Likelihood to ‘Call before you dig’.	80.6% Correct Response, and 19.4 % Incorrect Response
3) Proximity to overhead power line	69.6% Correct Response, and 30.4% Incorrect Response
4) Danger of tampering with electrical equipment.	96.7% Correct Response, and 3.3% Incorrect Response
5) Proximity to downed power line.	79.6% Correct Response, and 20.4% Incorrect Response
6) Action taken in vehicle contact with wires.	92.3% Correct Response, and 7.7% Incorrect Response

Thunder Bay Hydro understands the importance and value of public awareness regarding electrical safety, and actively educates customers and employees of the dangers, and repercussions. Thunder Bay Hydro believes in the foundation of early education in regards to electrical safety and has engaged 15 local schools throughout the City of Thunder Bay in discussions related to electrical safety through

the 'Hi-Line Hazard Electrical Safety & Awareness Program' which involves contests, and classroom visits. Other safety programs include Community Electrical Safety Awards, 'Call before you Dig' Campaign and truck decals, Power Line Safety Week (May 11-17), and safety presentations to community group bus drivers.

Thunder Bay Hydro recognizes the potential for improvement and aims to increase the public awareness of electrical safety well into the 90th percentile to maintain our reputation as an industry leader in safety.

- **Component B – Level of Compliance with Ontario Regulation 22/04 - Distributor Target Met**

The Ontario Energy Board requires all distributors to be in compliance with Ontario Regulation 22/04, which outlines electrical safety requirements for the design, construction, and maintenance of electrical distribution systems.

Section 13 of Ontario Regulation 22/04 mandates that all distributors engage an auditor on an annual basis to review the distributor's compliance with sections 4, 5, 6, 7 and 8 of the above regulation and provide a report of the findings. Audit, Declaration of Compliance, Due Diligence Inspections, Public Safety Concerns and Compliance Investigations make up a level of compliance with Ontario Reg 22/04 component on the score card. Each section is evaluated and the auditor provides findings in terms of: compliant (C), non-compliance (NC), needs improvement (NI) and not applicable (NA).

Thunder Bay Hydro has fully met the performance target level of compliance with Ontario Regulation 22/04 attaining a complete 'C'. Thunder Bay Hydro continues to strive to maintain full compliance with the Ontario Regulation 22/04.

Thunder Bay Hydro is committed to creating and maintaining a corporate culture where health and safety is the company's top priority. Thunder Bay Hydro has continued to enhance communication with employees, providing additional opportunities for staff to participate on committees and revamping communication tools. Thunder Bay Hydro has re-branded its internal safety program 'My Safety Matters' comprising ten guiding principles which emphasize the importance of safety at work and home.

Thunder Bay Hydro's employees overwhelmingly acknowledge that safety is the company's number one priority.

○ Component C – Serious Electrical Incident Index – Distributor Target Met

The Serious Electrical Incident Index component of the public safety measure is intended to address the consequential impact of improving public electrical safety on the distribution networks over time. It measures the number and rate of serious electrical incidents occurring on a distributor's assets and is normalized per 10, 100 or 1,000 km of line. Both the number of general public incidents and the rate per km of line are shown on the scorecard.

Thunder Bay Hydro's Serious Electrical Incident Index in 2015 is "0.0". Historical data related to this measure has been tracked by Thunder Bay Hydro and the Electrical Safety Authority, and Thunder Bay Hydro is proud that there are no such incidents to report for the years 2011-2015.

System Reliability

- **Average Number of Hours that Power to a Customer is Interrupted 'SAIDI' – Distributor Target Not Met**
System Average Interruption Duration Index 'SAIDI' is an indicator of system reliability that expresses the length of interruptions that customers experience in a year on average. All planned and unplanned sustained interruptions should be used to calculate this index. SAIDI is defined as the total customer hours of sustained interruption normalized per customer served. Thunder Bay Hydro's reliability statistic for the average number of hours that power to a customer is interrupted increased from 1.92 in 2014 to 2.02 in 2015, a change of 0.10.

This average duration of outages is often due to severity of weather events. However, In 2015 Thunder Bay Hydro's customer hours of interruption (excluding loss of supply to distributor) increased from 96,651 to 102,090, a total increase of 5,439. Overall Thunder Bay Hydro customers experienced a decrease of 30 total outage events during the 2015 year. Specific decreases in events can be traced to less scheduled outages for maintenance and capital work, as well as less unscheduled outages related to tree contact with distribution equipment that causes power outages. Thunder Bay Hydro has been focused on a preventative outage program that plans a more aggressive vegetation management to combat extreme weather.

In 2014 Thunder Bay Hydro experienced a total of 12 significant influencing statistic outage events, whereas in 2015 there are 24 significant outage events. These events were primarily in the month of December, and were the highest contributor to an increase of customer hours of interruption affecting the most customers.

Thunder Bay Hydro commits to decreasing the average number of hours that power to a customer is interrupted to below the 2015 distributor target of 1.92.

- **Average Number of Times that Power to a Customer is Interrupted ‘SAIFI’ - Distributor Target Exceeded**

System Average Interruption Frequency Index ‘SAIFI’ is an indicator of the average number of sustained interruptions each distributor customer experiences. All planned and unplanned sustained interruptions should be used to calculate this index. SAIFI is defined as the number of sustained interruptions normalized per customer served. In 2015 Thunder Bay Hydro’s reliability statistic for the average number of times that power to a customer is interrupted decreased from 2.69 to 2.39 a change of (0.30) from the 2014 reporting year.

In 2015 Thunder Bay Hydro’s number of times power to a customer is interrupted (excluding loss of supply to distributor) decreased from 135,192 to 120,630 for a total decrease of 14,562. The most notable decreases in number of times a customer was interrupted occurred from distribution equipment interference with a total decrease of 12,316 customer interruptions. This achievement can also be related to Thunder Bay Hydro’s aggressive preventative maintenance program.

Thunder Bay Hydro is pleased to report that it has exceeded the Distributor Target for this scorecard measure.

Asset Management

- **Distribution System Plan Implementation Progress - Industry Target Not Established**

The Distribution System Plan (“DSP”) outlines forecasted capital expenditures over a five year period required to maintain and expand Thunder Bay Hydro’s electricity system to service current and future customers.

The OEB requires that all distributor DSP’s optimize investments and reflect regional and smart grid considerations; serves present and future customers; places a greater focus on delivering value for money; aligns the interests of the distributor with those of customers; and supports the achievement of public policy objectives.

As of December 31st 2015, Thunder Bay Hydro’s DSP status was “On-Track” as the DSP was in draft phase. Thunder Bay Hydro completed and included the DSP as part of the 2017 Cost of Service rate application (EB-2016-0105) filed on September 9th 2016.

Cost Control

- **Efficiency Assessment -**

Total costs for all electricity distribution companies are evaluated based on econometric modeling by the Pacific Economics Group LLC (“PEG”) on behalf of the Ontario Energy Board to produce an efficiency ranking. A “predicted cost” is calculated by the model and the magnitude of the difference between distributor’s actual and predicted costs governs the assignment of a distributor into one of five groups.

2015 results were released on August 4th 2016 and for the fourth consecutive year; Thunder Bay Hydro was placed in Group 3, which is defined as having actual costs within +/- 10 percent of predicted costs.

Group 3 is considered the industry average efficiency ranking and in 2015, 50% (36/72) of the electricity distribution companies fell into this cohort. In other words, Thunder Bay Hydro’s costs are considered within the average cost range for distributors in the Province of Ontario. Thunder Bay Hydro continues to diligently manage expenditures to ensure efficiencies will be achieved such that the current group 3 ranking will be maintained or bettered. Thunder Bay Hydro continuously seeks opportunities for efficiencies to will optimize performance.

- **Total Cost per Customer -**

An evaluation by the Pacific Economics Group LLC (“PEG”) on behalf of the Ontario Energy Board produces a cost per customer metric. This measure is calculated as the sum of total capital and operating costs and divides the cost figure by the total number of customers that Thunder Bay Hydro services.

Total costs include annual operating and capital costs. Operating costs are the costs associated with the maintenance, operation, billing and collection, and administrative and general expense of Thunder Bay Hydro’s distribution assets. Capital costs include enhancements, betterments and replacement of capital assets that are required each year to maintain a safe and reliable network. Capital costs fluctuate depending on the need to replace existing capital assets and additional infrastructure to support growth and develop.

The increase in costs is consistent with ongoing operating activities and distribution system plan to replace, refurbish and modernize the utility’s aged distribution system and to connect new customers. Thunder Bay Hydro’s cost performance result for 2015 is an increase of \$29 or 4.79% from \$606 per customer in 2014 to \$635 per customer. Thunder Bay Hydro’s PEG results are an increase of 3.5% overall total cost in 2015. Of this 3.5% increase, 2.1% is attributable to OM&A expenses and 4.6% is attributable to Capital Cost increases in the PEG model calculations.

Thunder Bay Hydro is dedicated to searching for cost efficiencies in order to operate and maintain a reliable distribution system with the objective of minimizing the impacts to customers.

- **Total Cost per Km of Line**

An evaluation by the Pacific Economics Group LLC (“PEG”) on behalf of the Ontario Energy Board produces a cost per kilometer of line metric. This measure sums the total capital and operating costs and divides the cost figure by the kilometers of line that Thunder Bay Hydro operates to serve our customers.

Total costs include annual operating and capital costs. Operating costs are the costs associated with the maintenance, operation, billing and collection, and administrative and general expense of Thunder Bay Hydro’s distribution assets. Capital costs include enhancements, betterments and replacement of capital assets that are required each year to maintain a safe and reliable network. Capital costs fluctuate depending on the need to replace existing capital assets and additional infrastructure to support growth and develop.

Thunder Bay Hydro’s total cost per km of line of \$27,195 increased compared to 2014, by \$331 or 1.23% per km, primarily due to the 4.6% increase in capital cost investment. The increase in costs is consistent with ongoing operating activities and distribution system planning, to replace, refurbish and modernize the utility’s aged distribution system and to connect new customers. This increase was partially offset Thunder Bay Hydro’s increase of total km of line from 1,138 in 2014 to 1,181 in 2015.

Thunder Bay Hydro is dedicated to searching for cost efficiencies in order to operate and maintain a reliable distribution system with the objective of minimizing the impacts to customers.

Conservation & Demand Management

In 2015, a new energy conservation program called “Conservation First Framework” was mandated by the Ministry of Energy for the period 2015 to 2020. Consequently, the program administrator, the Independent Electricity System Operator (IESO) Board established CDM targets for the reduction of electrical consumption (kWh's) to be met by licensed electricity distributors across the province.

The Independent Electricity System Operator (IESO) supports this initiative by measuring the energy savings as a result of regulator approved energy saving programs. These approved energy savings programs are available to all of Thunder Bay Hydro's energy consumers; Residential, Small Business, Industrial and Commercial.

Thunder Bay Hydro's Energy Conservation Plan has been approved by the Independent Electricity System Operator.

- **Net Cumulative Energy Savings (% of Target Achieved)**

The Net Cumulative Energy Savings are reported by the Independent Electricity System Operator (“IESO”), who administers the Conservation and Demand Management Program. The current conservation target period runs from January 1, 2015 to December 31, 2020.

Thunder Bay Hydro's energy saving target for the 2015-2020 period is 48.42GWh or 48,420,000 kWh.

At the end of 2015, the actual kWh Energy Savings on the verified IESO report was 5.28 GWh / 5,286,985 kWh or 10.92% of the six year target. Thunder Bay Hydro would like to note that the IESO report did not include the completed ‘CHP Project’ in the 2015 results although it was in service from the date December 23rd 2015 for a total actual kWh Energy Savings of 16.2 GWh / 16,191,000 kWh. The IESO has confirmed with Thunder Bay Hydro that the ‘CHP Project’ will be added onto line 51 of the IESO report ‘*Adjustments to 2015 CFF Verified Results*’ in 2016 report. Therefore Thunder Bay Hydro can conclude that the actual kWh Energy Savings for 2015 was 21.48GWh / 21,477,985 kWh or 44.4% of its targeted results. As reported on the IESO Program Participation & Cost Report dated July 15th 2016 -

Thunder Bay Hydro proudly obtained the top ranking of 8 / 73 distributors for total percentage of 6 year allocated target achieved.

Thunder Bay Hydro has been committed to conservation programming for customers since 2005. Historically, Thunder Bay Hydro has achieved high results comparative to the industry target, and plans to achieve the new targets with the same dedication.

Connection of Renewable Generation

- **Renewable Generation Connection Impact Assessments Completed on Time - Industry Target Not Established**

Under the Green Energy Act, Thunder Bay Hydro and all other Electricity distributors have an obligation to enable renewable generation connections into the distribution system. As part of the process Thunder Bay Hydro must conduct Connection Impact Assessments (CIAs) within 60 days of receiving authorization from the Electrical Safety Authority. In 2015, Thunder Bay Hydro completed the required CIAs for all facilities that have a nameplate rated capacity of greater than 10kW.

Thunder Bay Hydro has achieved a Renewable Generation Connection Impact Assessments Completed on Time rate of 100% within 60 days. Thunder Bay Hydro will aim to provide this high level of service in the future.

- **New Micro-embedded Generation Facilities Connected On Time - Target Exceeded**

Thunder Bay Hydro is required to connect small generation facilities that produce less than 10kW of power to the distribution system within five business days of the applicant informing the distributor that it has satisfied all applicable service.

In 2015, Thunder Bay Hydro successfully connected 100% of micro-embedded generation facilities, all of which were connected within the 5-day timeline. This is far above the industry standard of 90% for all Distribution Companies in Ontario.

Financial Ratios

- **Liquidity: Current Ratio (Current Assets/Current Liabilities)**

The current ratio is a common way of measuring the financial health of a company. Current Ratio measures whether or not a firm has enough resources (assets) on hand to pay its debts over the next 12 months. A current ratio that is greater than 1 means good short term financial strength, as it indicates that short term debts and financial obligations can be met and that the organization is in good financial health.

At 1.61, Thunder Bay Hydro maintains a strong liquidity ratio. In 2011, Thunder Bay Hydro's current ratio reflected a change in regulatory accounting to an accrued basis. This ratio has been relatively consistent over the period 2011 – 2015.

Thunder Bay Hydro's target is to maintain a current ratio of greater than 1.1 to 1.

- **Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio**

The OEB uses a deemed capital structure of 60% debt, 40% equity for electricity distributors when establishing rates. This deemed capital mix is equal to a debt to equity ratio of 1.5 (60/40).

Thunder Bay Hydro's debt to equity ratio of 0.75 is less than 1.5 and indicates that the organization is less levered than the deemed capital structure. In 2013, Thunder Bay Hydro converted a portion of the outstanding Note Payable to the Corporation of the City of Thunder Bay to equity, thus, reduced the leverage ratio in that year.

Thunder Bay Hydro's shareholder does not require a return on the debt held, repayment on the debt, nor does it require dividend payments. This has allowed Thunder Bay Hydro to reinvest 100% of the return on equity into capital and/or operational costs, thus enabling a lower debt level than otherwise might be required.

- **Profitability: Regulatory Return on Equity – Deemed (included in rates)**

The profitability measure is defined as the approved return on equity that is embedded in Thunder Bay Hydro's distribution rates. This measure assesses whether distributors are earning a fair return on their investment. Thunder Bay Hydro's current approved return on equity is 7.00%, which was awarded in the 2013 Cost of Service Rate Application.

Profitability in both 2011 and 2012 reflects better than deemed return on equity due to unanticipated one-time transactions (Smart Meter revenue for previously expensed interest, regulatory settlement relating to payment-in-lieu of taxes (PILS) and Ministry of Finance interest on PILS assessment).

- **Profitability: Regulatory Return on Equity – Achieved**

In 2013, 2014, and 2015 the actual rate of 6.34%, 5.99%, and 5.69% earned (respectively) was lower than the approved rate of 7.00%. A lower rate is common, as annual distribution rates are adjusted between Cost of Service applications by an inflationary factor less an efficiency gain. In practice, this adjustment does not keep up with various costs such as rising salaries and wages, new initiatives and regulatory compliance requirements. As a result, there is often a decline in the regulatory rate of return in the years between Cost of Service applications.

Note to Readers of 2015 Scorecard MD&A

The information provided by distributors on their future performance (or what can be construed as forward-looking information) may be subject to a number of risks, uncertainties and other factors that may cause actual events, conditions or results to differ materially from historical results or those contemplated by the distributor regarding their future performance. Some of the factors that could cause such differences include legislative or regulatory developments, financial market conditions, general economic conditions and the weather. For these reasons, the information on future performance is intended to be management's best judgement on the reporting date of the performance scorecard, and could be markedly different in the future.