

Scorecard - Thunder Bay Hydro Electricity Distribution Inc.

Performance Outcomes	Performance Categories	Measures	2013	2014	2015	2016	2017	Trend	Target		
									Industry	Distributor	
<b>Customer Focus</b>  Services are provided in a manner that responds to identified customer preferences.	Service Quality	New Residential/Small Business Services Connected on Time	99.80%	100.00%	99.90%	100.00%	100.00%	↑	90.00%		
		Scheduled Appointments Met On Time	97.80%	100.00%	99.90%	100.00%	100.00%	↑	90.00%		
		Telephone Calls Answered On Time	91.80%	87.10%	92.40%	93.30%	94.81%	↑	65.00%		
	Customer Satisfaction	First Contact Resolution			A+	A+	A+	A+			
		Billing Accuracy			99.97%	99.93%	99.81%	99.88%	↓	98.00%	
		Customer Satisfaction Survey Results			A	A	A	A			
<b>Operational Effectiveness</b>  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%	82.00%	84.00%				
		Level of Compliance with Ontario Regulation 22/04 <sup>1</sup>	C	C	C	C	C	→		C	
		Serious Electrical Incident Index	Number of General Public Incidents	0	0	0	0	0	→		0
	Rate per 10, 100, 1000 km of line		0.000	0.000	0.000	0.000	0.000	→		0.000	
	System Reliability	Average Number of Hours that Power to a Customer is Interrupted <sup>2</sup>	1.03	1.92	2.02	1.69	1.63	↑		1.59	
		Average Number of Times that Power to a Customer is Interrupted <sup>2</sup>	2.02	2.69	2.39	2.70	3.05	↓		2.58	
	Asset Management	Distribution System Plan Implementation Progress		On track	On-track	On Track	106.13				
	Cost Control	Efficiency Assessment	3	3	3	3	4				
		Total Cost per Customer <sup>3</sup>	\$585	\$606	\$635	\$666	\$657				
Total Cost per Km of Line <sup>3</sup>		\$25,631	\$26,864	\$27,195	\$28,444	\$28,819					
<b>Public Policy Responsiveness</b>  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	Net Cumulative Energy Savings <sup>4</sup>			10.92%	53.07%	106.88%			48.42 GWh	
	Connection of Renewable Generation	Renewable Generation Connection Impact Assessments Completed On Time		100.00%	100.00%						
		New Micro-embedded Generation Facilities Connected On Time	100.00%	100.00%	100.00%	100.00%	100.00%	→	90.00%		
<b>Financial Performance</b>  Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios	Liquidity: Current Ratio (Current Assets/Current Liabilities)	1.62	1.85	1.61	1.41	1.71				
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio	0.66	0.72	0.75	0.73	0.86				
		Profitability: Regulatory Return on Equity	Deemed (included in rates)	7.00%	7.00%	7.00%	7.00%	8.78%			
			Achieved	6.34%	5.99%	5.69%	1.40%	3.25%			

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 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.

**Legend:**

5-year trend  
 ↑ up   ↓ down   → flat

Current year  
 ● target met   ● target not met

## 2017 Scorecard Management Discussion and Analysis (“2017 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 2017 Scorecard MD&A:

[http://www.ontarioenergyboard.ca/OEB/ Documents/scorecard/Scorecard Performance Measure Descriptions.pdf](http://www.ontarioenergyboard.ca/OEB/Documents/scorecard/Scorecard%20Performance%20Measure%20Descriptions.pdf)

Thunder Bay Hydro (“TBH”) owns, operates and manages the assets associated with the distribution of electrical power to approximately 45,000 residential and 5,000 commercial customers in the City of Thunder Bay, and Fort William First Nations. Thunder Bay Hydro delivers electricity through a distribution network of over 1,159 kilometers of line and is considered the largest local distribution company in Northwestern Ontario.

Thunder Bay Hydro had a successful year in 2017, exceeding most of the performance targets for the measures which have been established by the Ontario Energy Board (OEB) in this scorecard for the province’s 67 electricity distributors.

Thunder Bay Hydro monitors the OEB scorecard measures; Customer Focus, Operational Effectiveness, Public Policy Responsiveness, and Financial Performance on an ongoing basis and is continuously seeking opportunities to improve its performance. The company is committed to meeting the needs of its customers both today and in the future. Thunder Bay Hydro is confident that its focus on customer outcomes will allow the company to continue to meet or exceed performance targets.

In 2017 Thunder Bay Hydro experienced challenges with extreme and unpredictable weather events testing our planning and resources. One of these challenges was qualified as a major outage event, and was reported to the OEB. 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.

In 2018, Thunder Bay Hydro will continue efforts to maintain a high level of achievement on the scorecard performance results, and aim to better the scorecard areas which can be identified as improvable compared to prior years, and 5 year rolling reliability averages.

## Service Quality

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

The Ontario Energy Board's Distribution System Code (DSC 7.2) requires electricity distributors to connect and complete a new service request for low voltage (<750 volts) within five business days from the day on which all applicable service conditions are satisfied.

Over the 2013 to 2017 period, Thunder Bay Hydro has connected on average, 99.94% of our new residential, micro fit, and small business customers on time. This is consistently above the OEB's industry standard of 90% for all Distribution Companies in Ontario. In 2017 Thunder Bay Hydro achieved a result of 100.0% of all its new residential/small business services connected within five business days.

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

The Ontario Energy Board's Distribution System Code (DSC 7.4) requires that for appointments during regular business hours, the electricity distributor must offer a window of time that is no longer 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 100% in 2017. Thunder Bay Hydro has consistently performed far 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 2013 to 2017 period by 2.2%. Rising from 97.8% of scheduled appointments met on time in 2013, to 100% in 2017. 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 - Industry Target Exceeded**

The Ontario Energy Board's Distribution System Code (DSC 7.6) requires that customer 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 2017 Thunder Bay Hydro is pleased to report that it has performed better this year and achieved a rate of calls answered 94.81% in fewer than 30 seconds which is an increase of 1.50% over 2016's achieved rate of 93.3%. Establishing the internal key performance indicator above the OEB mandated rate 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.

In 2017 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

- **Billing Accuracy – Industry Target Exceeded**

The OEB prescribes a measurement of billing accuracy which must be used by all electricity distributors. The uniform measure for billing accuracy is defined and calculated as:

Percentage of bills inaccurately issued = (total number of bills issued for the year - number of **inaccurate** bills issued for the year) / the total number of bills issued for the year.

In 2017 Thunder Bay Hydro issued 608,202 measurable bills, which is 49% more bills than the 2016 year, and achieved billing accuracy rate of 99.88%. The increase in number of bills over the 2016 to 2017 period can be attributed to the OEB mandate to transition customers from bi-monthly to monthly billing, as well as the province wide Ontario Fair Hydro Plan program implemented during the 2017 year. Despite the many challenges faced by the billing department, 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**

Similar to the First Contact Resolution Measure the Ontario Energy Board introduced the ‘Customer Satisfaction Survey Results’ measure beginning in 2013. As 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 2017 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. This report returned results to our utility early in 2017 based on 2016 performance.

The survey findings covered multiple categories grouped into 6 sections: (1) Customer Satisfaction: Initial, (2) Customer Satisfaction: Post, (3) Overall Satisfaction, (4) Customer Experience Performance Rating: CEPr, (5) Customer Centric Engagement Index: CCEI, and (6) Credibility & Trust Index. For each of these six performance measures Thunder Bay Hydro scored very highly, and 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 the 2016 / 2017 study which is consistent with the ranking of ‘A’ achieved in the 2015 survey 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 which is a decrease from its 2015 survey results of ‘B+’.

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.

## Safety

- **Public Safety**

In 2015, the OEB introduced measures in the Safety performance category for 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 – Industry Target Not Established**

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 of 2018. The results for the Public Awareness of Electrical Safety Survey are to be used on a Bi-annual basis Utility PULSE results are based on a telephone survey (Random Digit Dialing) among 402 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 2016 Canadian census figures for age, gender and region.

As a result of the performed survey, Thunder Bay Hydro achieved a Public Safety Awareness Index Score of 84% which is a 2% increase from the study performed in 2015 and 2016 results. The awarded 84% 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, as well as the corresponding knowledge scores;

<u>Six Core Safety Question</u>	<u>Customer Response</u>
1) Impact of Touching a Power Line.	97.2% Correct Response, and 2.8% Incorrect Response
2) Likelihood to 'Call before you dig'.	86.7% Correct Response, and 13.3 % Incorrect Response
3) Proximity to overhead power line	75.9% Correct Response, and 24.1% Incorrect Response
4) Danger of tampering with electrical equipment.	98.7% Correct Response, and 1.3% Incorrect Response
5) Proximity to downed power line.	84.8% Correct Response, and 15.2% Incorrect Response
6) Action taken in vehicle contact with wires.	92.3% Correct Response, and 7.7% Incorrect Response

Each of the questions above identified increases to correct responses as compared to the 2015/2016 survey results with the exception of

#1 – ‘Impact of Touching a Power Line’ which decreased in correctness by 0.80%. Thunder Bay Hydro understands the importance and value of public awareness regarding electrical safety, and is committed to actively educating 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, awareness truck decals, Power Line Safety Week (May 11- 17), ‘Why I am committed to Safety’ employee video, and safety presentations to community groups such as bus drivers.

Thunder Bay Hydro recognizes the potential for improvement and aims to increase the public awareness of electrical safety well into the 90<sup>th</sup> 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 of 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 compliancy with the Ontario Regulation 22/04. This is consistent over the 2013 to 2017 reporting period as issued on the scorecard by the Electrical Safety Authority.

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 Average 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.

For the 2017 reporting period (January 1, 2016 to December 31, 2016) there were "0" incidents in Thunder Bay Hydro's service territory. Thunder Bay Hydro is found to be compliant with the Section 12 of Ontario Regulation 22/04 in regards to the incident reviewed.

Thunder Bay Hydro treats all safety incidents seriously, and safety is Thunder Bay Hydro's top priority for both employees and the public. The company regularly promotes powerline safety through social media, its website, on-bill messaging, and community engagement. Thunder Bay Hydro will continue to promote its programs "High Line Hazard" and "Call before you Dig" to ensure awareness, and promoting knowledge of safety compliance.

Serious Electrical Incident Index on the 2017 scorecard is shown maintaining "0.0" incidents reported between 2013 - 2017. Historical data related to this measure has been tracked by Thunder Bay Hydro and the Electrical Safety Authority.

## System Reliability

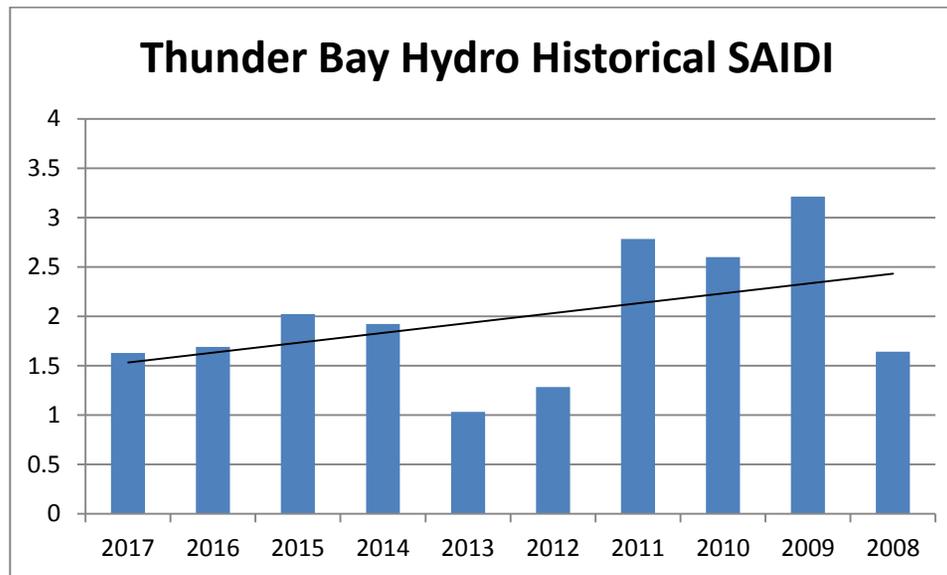
- **Average Number of Hours that Power to a Customer is Interrupted 'SAIDI' – Distributor Target Not Met**

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 decreased from 1.69 in 2016 to 1.63 in 2017, a positive trending decrease of 0.06.

This average duration of outages is often due to severity of weather events. In 2017 Thunder Bay Hydro's customer hours of interruption (excluding loss of supply to distributor, and major outages) decreased from 85,397 in 2016 to 82,628 in 2017 a total decrease of 2,769 hours. Thunder Bay Hydro customers also benefitted from experiencing a decrease of 85 total outage events during the 2017 year from 807 outage events in 2016 to 722 events in 2017. Specific decreases in the length of these outage 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.

The distributor target for this performance metric is established on the OEB scorecard as a five-year rolling average (2012- 2016). Thunder Bay Hydro is proud of its 2017 SAIDA decrease of 0.06, achieving a metric only slightly above its five year rolling distributor average target of 1.59. Thunder Bay Hydro strives to continue this positive trend of less number of hours in which a customer is interrupted.

Thunder Bay Hydro has reviewed this data on an expanded ten year data set (2008 – 2018) excluding loss of supply and major outages, and has concluded that over a ten year trend Thunder Bay Hydro's customers are experiencing a declining trend in the length of interruptions that customers experience in a year on average. This declining trend line between 2.5 – 1.5 can be observed in the chart below.

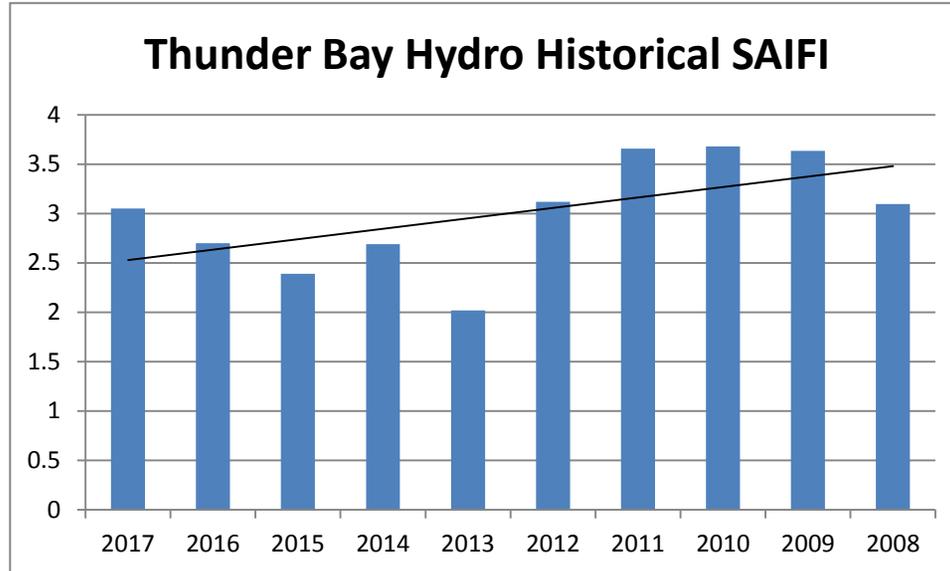


- **Average Number of Times that Power to a Customer is Interrupted 'SAIFI' - Distributor Target Not Met**

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 2017 Thunder Bay Hydro's reliability statistic for the average number of times that power to a customer is interrupted increased from 2.70 to 3.05, a change of 0.35 from the 2016 reporting year.

In 2017 Thunder Bay Hydro's number of times power to a customer is interrupted (excluding loss of supply to distributor, and major outages) increased from 136,888 in 2016 to 154,843 for a total increase of 17,955. The distributor target for this performance metric is established as a five-year rolling average (2012- 2016). Thunder Bay Hydro has exceeded the rolling average Distributor Target of 2.58 for this scorecard measure in 2017 by a minimal margin of 0.47.

Thunder Bay Hydro has reviewed the SAIFI data on an expanded ten year data set (2008 – 2018) excluding loss of supply and major outages, and has concluded that over a ten year trend Thunder Bay Hydro's customers are experiencing an overall decreasing trend in number of sustained interruptions that customers experience in a year on average. This declining trend line between 3.5 – 2.5 can be observed in the chart below.



**Notable Event:** On December 5th 2017 Thunder Bay Hydro experienced a major outage event related to severe winter weather (Code 6 Adverse Weather) which was deemed to be unforeseeable, unpredictable, unpreventable and unavoidable by the LDC. Although the winter storm was predicted with some advanced warning given typical of weather trends for the area at that time of the year, the storms specific wind speed and direction caused extreme galloping of Thunder Bay Hydro’s conductors causing phases to make contact with each other, and breakers to open. Thunder Bay Hydro’s customer minutes of outage experienced in one day, nearly doubled, compared to the rest of the year. Therefore Thunder Bay Hydro qualified this event as a major outage event and filed these statistics with the Ontario Energy Board and posted the report ‘OEB Filing 2.1.4.2.10 – Major Event Response Report for Thunder Bay Hydro’ on its company website. It is important for customers to note that for OEB scorecard purposes the Major Outage event has been removed, as is any loss of supply to Thunder Bay Hydro.

## 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.

Thunder Bay Hydro’s DSP was completed in 2016 and approved by the Ontario Energy Board during its 2017 Cost of Service Application EB-2016-0105. During this rate proceeding all parties were generally in agreement with Thunder Bay Hydro’s proposed expenditures in the categories of System Access, System Service and General Plant categories. The only exception being the proposed expenditures in the category of System Renewal which had been supported by Thunder Bay Hydro’s chosen expert witness. In its final Decision and Order issued September 21, 2017 the OEB set rates based on a reduction of \$1.0 million from the original proposed capital expenditure budget. As a result the approved 2017 total capital budget for 2017 was \$ 11.526 million.

Previously, Thunder Bay Hydro had reported this metric based on a project planning metric as it continued to plan and develop its DSP for the OEB approval. This had been reportable as “On Track” in the years 2014 to 2016. In 2017, considering that the DSP is now completed and approved, Thunder Bay Hydro has transitioned to reporting this metric based on DSP’s actual life to date capital expenditures divided by the total expected expenditure year over year. This will be accumulative as the years continue. Therefore in year one (2017) the actual capital expenditure exclusive of System Access of \$9.406M (the numerator) and \$8.863 the denominator-(\$11.526M - \$2.662M) equates to the reported DSP implementation progress figure of 106.13% of year one planned spending being achieved.

## 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.

2017 results were released on August 23<sup>rd</sup> 2018 and for the first year in many; Thunder Bay Hydro was placed in Group 4, which is defined as having actual costs in excess of +/- 10 to 25 percent of predicted costs, and receiving a stretch factor of 0.45%. Thunder Bay Hydro has only exceeded the Group 3 +/- 10 percent threshold of predicted costs by a marginal value of 0.7% and had it been reduced by this amount, would have fallen into group 3 as it has been historically categorized.

Thunder Bay Hydro using the standardized PEG formula increased in its Operating Maintenance and Administrative Costs by only 1.43% and reduced its Capital Costs by (3.32%) with an overall Total Cost impact of (1.16%). The Total Cost input variables are entered into an industry wide calculation to output benchmarking results. Actual cost over predicted cost is averaged over the last 3 years results to receive an assignment into one of the five groupings. Had the PEG group used an average over a longer amount of time Thunder Bay Hydro would have remained in cohort 3 with an actual cost average of 7.78% which is far below the +/- 10 percent threshold as can be seen in the table below.

Year	Benchmarking Actual Cost / Predicted Cost Percentage	
2010	9.57%	
2011	8.02%	
2012	-2.83%	
2013	8.18%	
2014	7.36%	
2015	8.63%	
2016	12.16%	PEG Reported 3 year Average:
2017	11.19%	10.66% Group 4
8 year Average	7.78%	Group 3

Group 4 is considered slightly below industry average efficiency ranking and in 2017, 11 out of the 65 reported electricity distribution companies fell into this grouping. In other words, Thunder Bay Hydro's costs are considered to have exceeded the original prediction 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 best group ranking will be achieved.

- **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 divided 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 change 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 2017 is a decrease of \$9 or 0.01% from \$666 per customer in 2016 to \$657 per customer in 2017. Thunder Bay Hydro's PEG results are an overall total cost decrease of (0.81%). A combination of a 1.43% increase in OM&A expenses and a (3.32%) decrease in Capital Cost result in the total cost decrease of (1.6%) as per 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 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 in 2017 of \$28,819 increased compared to 2016, by \$375 or 1.32%. As noted in the total cost per customer above, a 1.43% increase in OM&A expenses and a 3.32% decrease in Capital Cost spending are Thunder Bay Hydro’s 2017 versus 2016 percentage cost variances as per the August 2018 PEG Report to the Ontario Energy Board. The increase in total cost per Km of line is impacted by Thunder Bay Hydro’s decrease in total km of line from 1,188 in 2016 to 1,159 in 2017.

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 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 IESO.

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

The Net Cumulative Energy Savings are reported by the 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 48,420MWh or 48,420,000 kWh.

At the end of 2017, the actual kWh Energy Savings on the verified IESO report was 51,752 MWh or 106.88% of the six year target. 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 2017, much like the 2016 and 2013 reporting year Thunder Bay Hydro did not receive requests to complete any CIAs for facilities that have a nameplate rated capacity of greater than 10kW.

Thunder Bay Hydro has achieved a Renewable Generation CIAs Completed on Time rate of 100% within 60 days between 2013 and 2017 in the years for which this was required. 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 2017, 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 1.71, Thunder Bay Hydro maintains a strong liquidity ratio. This ratio has been relatively consistent over the period 2013 – 2017.

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 0.86 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 8.78%, which was awarded in the 2017 Cost of Service Rate Application.

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

In 2013, 2014, 2015, 2016 and 2017 the actual rate of 6.34%, 5.99%, 5.69%, 1.40%, and 3.25% earned (respectively) was lower than the approved rate of 7.00% (2013-2016) and then 8.78% (2017). A lower rate is common, as annual distribution rates are adjusted between Cost of Service (COS) 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. Factors contributing to the achieved Regulatory ROE decline include shortfall of distribution revenues, one time other revenue adjustment, one-time discretionary expenses, higher than budgeted loss on asset retirements, and higher than inflationary cost increases. Additional contributors to the achieved return being lower than deemed in 2017 is due to the COS rates not taking effect until September 1, 2017 and the one time legal and consulting fees related to the COS.

## Note to Readers of 2017

### 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.