

Ontario Energy Board Commission de l'énergie de l'Ontario

DECISION AND RATE ORDER EB-2017-0075

THUNDER BAY HYDRO ELECTRICITY DISTRIBUTION INC.

Application for an order approving just and reasonable rates and other charges for electricity distribution to be effective May 1, 2018.

By Delegation, Before: Jane Scott

March 22, 2018

1 INTRODUCTION AND SUMMARY

Through this Decision and Order, the Ontario Energy Board (OEB) approves the incentive rate-setting mechanism (IRM) application filed by Thunder Bay Hydro Electricity Distribution Inc. (Thunder Bay Hydro) on November 6, 2017, as amended during the course of the proceeding.

Thunder Bay Hydro serves about 50,000 mostly residential and commercial electricity customers in the City of Thunder Bay and the Fort William First Nation. The company is seeking the OEB's approval for the rates it charges to distribute electricity to its customers, as is required of licenced and rate-regulated distributors in Ontario.

A distributor may choose one of three rate-setting methodologies approved by the OEB. Each of these is explained in the OEB's <u>Chapter 3 Filing Requirements for Incentive</u> <u>Rate-Setting Applications</u> (the Filing Requirements).

Thunder Bay Hydro's application is based on a Price Cap Incentive Rate-setting option (Price Cap IR) with a five-year term. The Price Cap IR option involves the setting of rates through a cost of service (COS or rebasing) application in the first year. Mechanistic price cap adjustments, based on inflation and the OEB's assessment of the distributor's efficiency, are then approved through IRM applications in each of the ensuing four (adjustment) years.

As a result of the OEB's findings in this Decision, there will be a monthly bill increase of \$3.91 for a residential customer consuming 750 kWh, effective May 1, 2018.

Thunder Bay Hydro has also applied to change the composition of its distribution service rates. Residential distribution service rates currently include a fixed monthly charge and a variable usage charge. In 2015, the OEB issued a policy to transition these rates to a fully fixed structure over a four-year period beginning in 2016.¹ Accordingly, the fixed monthly charge for 2018 has once again been adjusted upward in this Decision by more than the mechanistic price cap adjustment alone. The variable usage rate is commensurately lower. This policy change does not affect the total revenue that distributors collect from residential customers.

¹ OEB Policy – "A New Distribution Rate Design for Residential Electricity Customers" EB-2012-0410, April 2, 2015

2 THE PROCESS

This Decision is being issued by delegated authority, without a hearing, under section 6 of the *Ontario Energy Board Act, 1998* (the OEB Act).

The OEB follows a standardized and streamlined process for IRM applications filed under Price Cap IR. In each adjustment year of a Price Cap IR term, the OEB prepares a Rate Generator Model that includes information from the distributor's past proceedings and annual reporting requirements. A distributor will then review and complete the Rate Generator Model and include it with its application. During the course of the proceeding, the Rate Generator Model will also be updated or corrected, as required.

The Rate Generator Model updates base rates, retail transmission service rates and, if applicable, shared tax saving adjustments. It also calculates rate riders for the disposition of deferral and variance account balances.

Thunder Bay Hydro filed its application on November 6, 2017, under section 78 of the OEB Act and in accordance with the Filing Requirements. Thunder Bay Hydro supported its application with written evidence and a completed rate model. Questions were asked of, and answers were provided by, Thunder Bay Hydro through emails and phone calls with the OEB. Based on this information, a draft decision was prepared and provided to Thunder Bay Hydro on March 8, 2018. Thunder Bay Hydro was given the opportunity to provide its comments on the draft for consideration prior to the OEB issuing this Decision. The OEB updated the bill impact noted on page 1 of this Decision from what was in the draft from \$4.22 to \$3.91 due to an issue that was noticed in the rate model. The rate model has also been updated.

3 ORGANIZATION OF THE DECISION

In this Decision, the OEB addresses the following issues, and provides reasons for approving or denying Thunder Bay Hydro's proposals relating to each of them:

- Price Cap Adjustment
- Retail Transmission Service Rates
- Group 1 Deferral and Variance Accounts
- Residential Rate Design
- Other Matters

In the final section, the OEB addresses the steps to implement the final rates that flow from this Decision.

4 PRICE CAP ADJUSTMENT

Thunder Bay Hydro seeks to increase its rates, effective May 1, 2018, based on a mechanistic rate adjustment using the OEB-approved *inflation minus X-factor* formula applicable to Price Cap IR applications.

The components of the Price Cap IR adjustment formula applicable to Thunder Bay Hydro are set out in Table 4.1, below. Inserting these components into the formula results in a 0.90% increase to Thunder Bay Hydro's rates: 0.90% = 1.20% - (0.00% + 0.30%).

	Components	Amount
Inflation Factor ²		1.20%
V Factor	Productivity ³	0.00%
X-Factor	Stretch (0.00% – 0.60%) ⁴	0.30%

Table 4.1: Price Cap IR Adjustment Formula

The inflation factor of 1.20% applies to all Price Cap IR applications for the 2018 rate year.

The X-factor is the sum of the productivity factor and the stretch factor. It is a productivity offset that will vary among different groupings of distributors. Subtracting the X-factor from inflation ensures that rates decline in real, constant-dollar terms, providing distributors with a tangible incentive to improve efficiency or else experience declining net income.

The productivity component of the X-factor is based on industry conditions over a

² Report of the OEB – "Rate Setting Parameters and Benchmarking under the Renewed Regulatory Framework for Ontario's Electricity Distributors" EB-2010-0379, December 4, 2013

³ Ibid.

⁴ The stretch factor groupings are based on the Report to the Ontario Energy Board – "Empirical Research in Support of Incentive Rate-Setting: 2016 Benchmarking Update", prepared by Pacific Economics Group LLC., July 2017

historical study period and applies to all Price Cap IR applications for the 2018 rate year.

The stretch factor component of the X-factor is distributor specific. The OEB has established five stretch factor groupings, each within a range from 0.00% to 0.60%. The stretch factor assigned to any particular distributor is based on the distributor's total cost performance as benchmarked against other distributors in Ontario. The most efficient distributor would be assigned the lowest stretch factor of 0.00%. Conversely, a higher stretch factor would be applied to a less efficient distributor (in accordance with its cost performance relative to expected levels) to reflect the incremental productivity gains that the distributor is expected to achieve. The stretch factor assigned to Thunder Bay Hydro is 0.30%.

Findings

The OEB finds that Thunder Bay Hydro's request for a 0.90% Price Cap IR adjustment is in accordance with the annually updated parameters set by the OEB. The adjustment is approved, and Thunder Bay Hydro's new rates shall be effective May 1, 2018.

The adjustment applies to distribution rates (fixed and variable charges) uniformly across all customer classes.⁵

5 RETAIL TRANSMISSION SERVICE RATES

Distributors charge retail transmission service rates (RTSRs) to their customers to recover the amounts they pay to a transmitter, a host distributor or both for transmission services. All transmitters charge Uniform Transmission Rates (UTRs) approved by the OEB to distributors connected to the transmission system. Host distributors charge host-RTSRs to distributors embedded within the host's distribution system.

Thunder Bay Hydro is transmission connected and is requesting approval to adjust the RTSRs that it charges its customers to reflect the rates that it pays for transmission services included in Table 5.1.

⁵ Price Cap IR and Annual IR Index adjustments do not apply to the following rates and charges: rate riders, rate adders, low voltage service charges, retail transmission service rates, wholesale market service rate, rural or remote electricity rate protection charge, standard supply service – administrative charge, transformation and primary metering allowances, loss factors, specific service charges, microFIT charge, and retail service charges.

Table 5.1: UTRs⁶

Current Applicable UTRs (2018)	per kWh
Network Service Rate	\$3.61
Connection Service Rates	
Line Connection Service Rate	\$0.95
Transformation Connection Service Rate	\$2.34

Findings

Thunder Bay Hydro's proposed adjustment to its RTSRs is approved. The RTSRs were adjusted based on the UTRs current at the time of the filing. The OEB finds that the new 2018 UTRs are to be incorporated into the rate model to adjust the RTSRs that Thunder Bay Hydro will charge its customers accordingly.

6 GROUP 1 DEFERRAL AND VARIANCE ACCOUNTS

In each year of an IRM term, the OEB will review a distributor's Group 1 deferral and variance accounts in order to determine whether their total balance should be disposed.⁷ OEB policy requires that Group 1 accounts be disposed if they exceed (as a debit or credit) a pre-set disposition threshold of \$0.001 per kWh, unless a distributor justifies why balances should not be disposed.⁸ If the balance does not exceed the threshold, a distributor may elect to request disposition.

The 2016 actual year-end total balance for Thunder Bay Hydro's Group 1 accounts including interest projected to April 30, 2018 is a credit of \$632,493. This amount represents a total credit claim of \$0.0007 per kWh, which does not exceed the disposition threshold. Thunder Bay Hydro requests to dispose of the balances so its customers experience the return/charges which more closely reflect recent years, and

⁶ Decision and Rate Order, EB-2017-0359, February 1, 2018

⁷ Group 1 accounts track the differences between the costs that a distributor is billed for certain IESO and host distributor services (including the cost of power) and the associated revenues that the distributor receives from its customers for these services. The total net difference between these costs and revenues is disposed to customers through a temporary charge or credit known as a rate rider.

⁸ Report of the OEB – "Electricity Distributors' Deferral and Variance Account Review Initiative (EDDVAR)" EB-2008-0046, July 31, 2009

are not at risk for intergenerational gaps in disposition amounts.⁹ Thunder Bay Hydro proposes the disposition of this credit amount over a one-year period.

Included in the balance of the Group 1 accounts is the Global Adjustment (GA) account credit balance of \$33,253. A customer's costs for the commodity portion of its electricity service reflects the sum of two charges: the price of electricity established by the operation of the Independent Electricity System Operator (IESO) administered wholesale market, and the GA.¹⁰

The GA is paid by consumers in several different ways:

- For Regulated Price Plan (RPP) customers, the GA is incorporated into the standard commodity rates, therefore there is no variance account for the GA.
- Customers who participate in the Ontario Industrial Conservation Initiative program are referred to as Class A customers. These customers are assessed GA costs through a peak demand factor that is based on the percentage their demand contributes to the top five Ontario system peaks. This factor determines a Class A customer's allocation for a year-long billing period that starts in July every year. As distributors settle with Class A customers based on the actual GA costs there is no resulting variance.
- Class B non-RPP customers pay the GA charge based on the amount of electricity they consume in a month (kWh). Class B non-RPP customers are billed GA based on the IESO published GA price. For Class B non-RPP customers, distributors track any difference between the billed amounts and actual costs in the GA Variance Account for disposal, once audited.

Under the general principle of cost causality, customer groups that cause variances should be responsible for paying (or receiving credits) for their disposal. The movement from one class to another should not prevent identifiable customers from paying down/receiving a debit/credit balance.

Thunder Bay Hydro proposes the disposition of its GA variance account credit balance of \$33,253 as at December 31, 2016, including interest to April 30, 2018, in accordance with the following table.

⁹ Thunder Bay Hydro's 2018 IRM Application, EB-2017-0075, November 6, 2017, page 16

¹⁰ The GA is established monthly, by the IESO, and varies in accordance with market conditions. It is the difference between the market price and the sum of the rates paid to regulated and contracted generators and conservation and demand management (demand response) program costs.

Table 6.1: Recovery of GA Variance

Propos	sed Amounts	Proposed Method for Recovery
\$33,253 refunded to customer period from January 2016 to De	s who were Class B for the entire ecember 2016	per kWh rate rider

The balance of the Group 1 accounts includes a credit of \$67,466 for the recovery of Capacity Based Recovery (CBR) charges for Class B customers related to the IESO's wholesale energy market Demand Response 3 program. Distributors paid CBR charges to the IESO in 2016 and recorded these to a dedicated sub-account. The disposition of this sub-account is impacted by whether or not a distributor had any customers who were part of Class A during the period from January 2016 to December 2016.

Thunder Bay Hydro had Class A customers during the period from January 2016 to December 2016, so it applied to have the balance of this account disposed through a separate kWh rate rider for Class B customers in order to ensure proper allocation between Class A and Class B customers.

The remaining Group 1 accounts being sought for disposition, through the general Deferral and Variance Account rate rider, include the following flow through variance accounts: Smart Metering Entity Charges, Wholesale Market Service Charges, Retail Transmission Service Charges, Commodity Power Charges, and Account 1595 residual balances. These Group 1 accounts have a total credit balance of \$531,775, which results in a refund to customers.

The balances proposed for disposition reconcile with the amounts reported as part of the OEB's *Electricity Reporting and Record-Keeping Requirements.*¹¹ Thunder Bay Hydro further notes that its proposal for a one-year disposition period is in accordance with the OEB's policy.¹² OEB staff noted that the amounts should be disposed on a final basis.

Findings

The OEB approves the disposition of a credit balance of \$632,493 as of December 31, 2016, including interest projected to April 30, 2018 for Group 1 accounts.

¹¹ Electricity Reporting and Record Keeping Requirements, Version dated May 3, 2016

¹² As outlined in the Report cited at footnote 8 above.

The following table identifies the principal and interest amounts which the OEB approves for disposition.

Account Name	Account Number	Principal Balance (\$) A	Interest Balance (\$) B	Total Claim (\$) C=A+B
Smart Meter Entity Variance Charge	1551	(2,219)	(230)	(2,449)
RSVA - Wholesale Market Service Charge	1580	(979,061)	(15,588)	(994,649)
Variance WMS - Sub- account CBR Class B	1580	(65,002)	(2,464)	(67,466)
RSVA - Retail Transmission Network Charge	1584	(108,761)	(3,572)	(112,333)
RSVA - Retail Transmission Connection Charge	1586	88,448	723	89,171
RSVA – Power	1588	800,906	9,289	810,195
RSVA - Global Adjustment	1589	(36,499)	3,246	(33,253)
Disposition and Recovery of Regulatory Balances (2015)	1595	(186,325)	(135,385)	(321,710)
Totals for all Group 1	accounts	(488,513)	(143,980)	(632,493)

 Table 6.2: Group 1 Deferral and Variance Account Balances

The balance of each of the Group 1 accounts approved for disposition shall be transferred to the applicable principal and interest carrying charge sub-accounts of Account 1595. Such transfer shall be pursuant to the requirements specified in Article 220, Account Descriptions, of the *Accounting Procedures Handbook for Electricity Distributors*.¹³ The date of the transfer must be the same as the effective date for the associated rates, which is, generally, the start of the rate year. Thunder Bay Hydro shall

¹³ Accounting Procedures Handbook for Electricity Distributors, effective January 1, 2012

ensure these adjustments are included in the reporting period ending June 30, 2018 (Quarter 2).

The OEB approves these balances to be disposed through rate riders as calculated in the Rate Generator Model. The rate riders will be in effect over a one-year period from May 1, 2018 to April 30, 2019.¹⁴

7 RESIDENTIAL RATE DESIGN

All residential distribution rates currently include a fixed monthly charge and a variable usage charge. The OEB's residential rate design policy stipulates that distributors will transition residential customers to a fully fixed monthly distribution service charge over a four-year period, beginning in 2016.¹⁵ The OEB requires that distributors filing IRM applications affecting 2018 rates continue with this transition by once again adjusting their distribution rates to increase the fixed monthly service charge and decrease the variable charge consistent with the policy.

The OEB expects an applicant to apply two tests to evaluate whether mitigation of bill impacts for customers is required during the transition period. Mitigation usually takes the form of a lengthening of the transition period. The first test is to calculate the change in the monthly fixed charge, and to consider mitigation if it exceeds \$4. The second is to calculate the total bill impact of the proposals in the application for low volume residential customers (defined as those residential RPP customers whose consumption is at the 10th percentile for the class). Mitigation may be required if the bill impact related to the application exceeds 10% for these customers.

Thunder Bay Hydro notes that the implementation of the transition results in an increase to the fixed charge prior to the price cap adjustment of \$2.28. The bill impacts arising from the proposals in this application, including the fixed rate change, are below 10% for low volume residential customers.

Findings

The OEB finds that the proposed 2018 increase to the monthly fixed charge is calculated in accordance with the OEB's residential rate design policy. The results of the monthly fixed charge, and total bill impact for low consumption residential consumers

 $^{^{\}rm 14}$ 2018 IRM Rate Generator Model Tab 6.1 "GA", Tab 6.2 "CBR B", and Tab 7 "Calculation of Def-Var RR"

¹⁵ As outlined in the Policy cited at footnote 1 above.

show that no mitigation is required. The OEB approves the increase as proposed by the applicant and calculated in the final Rate Generator Model.

8 OTHER MATTERS

Based on the evidence on the record, OEB staff understand that Thunder Bay Hydro is proposing that the OEB correct an error that was made on the 2017 Tariff of Rates and Charges related to its loss factors. In its application, Thunder Bay Hydro stated:

Thunder Bay Hydro requests that during this IRM rate application the [B]oard review the wording and description surrounding its 2017 Board Approved Cost of Service Application (EB-2016-0105) Tariff of Rates and Charges. Particularly Thunder Bay Hydro would request that board staff pay attention to the description of Loss Factors being applied. During its Settlement process the board approved the rate design of Thunder Bay Hydro's customer classification, which moved one customer from a proposed Large Use classification, to a classification of "General Service 1,000kW or Greater". Following the approval of tariff and rates Thunder Bay Hydro noted that the description of loss factors does not considered the inclusion of this customer (or any future customers) which may exceed the 5,000kW. Thunder Bay proposes this be considered to provide consistency to the billing of the loss factor.¹⁶

OEB staff reviewed Thunder Bay Hydro's loss factors as shown on the 2017 Tariff of Rates and Charges and the settlement proposal underpinning the tariff and notes that while the settlement proposal agreed to not creating the proposed Large User class but instead moving the single customer into the GS > 1000 kW class. Appendix B of the settlement proposal also notes that the loss factor for all customers will be 1.0394.¹⁷

Thunder Bay Hydro's 2017 Tariff of Rates and Charges was not updated to reflect this part of the settlement proposal. The tariff includes the following:

- Total Loss Factor Secondary Metered Customer <5,000kW 1.0394
- Total Loss Factor Primary Metered Customer <5,000kW 1.0290

Findings

The OEB confirms that Thunder Bay Hydro's 2017 Tariff of Rates and Charges incorrectly shows the loss factors as only applying to customer < 5,000 kW and that as

¹⁶ Thunder Bay Hydro's 2018 IRM Application, EB-2017-0075, November 6, 2017, page 25

¹⁷ Settlement Proposal, EB-2016-0105, Appendix B

part of the approval of the settlement proposal in the 2017 Cost of Service application, the description of the loss factors should also have been updated to show that they also apply to all customers in the GS > 1,000 kW class including those greater than 5,000 kW. Thunder Bay Hydro's 2018 Tariff of Rates and Charges will be corrected to read:

•	Total Loss Factor – Secondary Metered Customer	1.0394
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Total Loss Factor – Primary Metered Customer 1.0290

9 IMPLEMENTATION AND ORDER

This Decision is accompanied by a Rate Generator Model and a Tariff of Rates and Charges (Schedule A).

Model entries were reviewed in order to ensure that they are in accordance with Thunder Bay Hydro's last COS decision, the 2017 OEB-approved Tariff of Rates and Charges, as well as to ensure that the cost, revenue and consumption results from 2016, are as reported by Thunder Bay Hydro to the OEB.

The Rate Generator Model was adjusted, where applicable, to correct any discrepancies. The Rate Generator Model incorporates the rates set out in the following table.

Table 9.1:	Regulatory	Charges
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Rate	per kWh
Rural or Remote Electricity Rate Protection (RRRP)	\$0.0003
Wholesale Market Service (WMS) billed to Class A and B Customers	\$0.0032
Capacity Based Recovery (CBR) billed to Class B Customers	\$0.0004

Each of these rates is a component of the "Regulatory Charge" on a customer's bill, established annually by the OEB through a separate, generic order. The RRRP, WMS and CBR rates were set by the OEB on December 20, 2017.¹⁸

The Smart Metering Entity Charge is a component of the "Distribution Charge" on a customer's bill, established by the OEB through a separate order. The Smart Metering

¹⁸ Decision and Order, EB-2017-0333, December 20, 2017

Entity Charge was set at \$0.57 by the OEB on March 1, 2018, effective January 1, 2018 to December 31, 2022.¹⁹ The Rate Generator Model has been adjusted to incorporate this rate.

THE ONTARIO ENERGY BOARD ORDERS THAT

1. The Tariff of Rates and Charges set out in Schedule A of this Decision and Rate Order is approved effective May 1, 2018 for electricity consumed or estimated to have been consumed on and after such date. Thunder Bay Hydro Electricity Distribution Inc. shall notify its customers of the rate changes no later than the first bill reflecting the new rates.

DATED at Toronto, March 22, 2018

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli Board Secretary

¹⁹ Decision and Order, EB-2017-0290, March 1, 2018

Schedule A To Decision and Rate Order

Tariff of Rates and Charges

Thunder Bay Hydro Electricity Distribution Inc.

OEB File No: EB-2017-0075

DATED: March 22, 2018

EB-2017-0075

Thunder Bay Hydro Electricity Distribution Inc. TARIFF OF RATES AND CHARGES

Effective and Implementation Date May 1, 2018 approved schedules of Rates, Charges and Loss Factors

RESIDENTIAL SERVICE CLASSIFICATION

This classification refers to an account taking electricity at 750 volts or less where the electricity is used exclusively in a separately metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge	\$	22.23
Smart Metering Entity Charge - effective until December 31, 2022	\$	0.57
Distribution Volumetric Rate	\$/kWh	0.0037
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kWh	(0.0005)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kWh	(0.0001)
Retail Transmission Rate - Network Service Rate	\$/kWh	0.0060
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0053
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

Effective and Implementation Date May 1, 2018 approved schedules of Rates, Charges and Loss Factors

EB-2017-0075

GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION

This classification refers to a non-residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 1,000 kW. This class includes medium and large-size commercial buildings, apartment buildings, condominiums, trailer courts, industrial plants, as well as large stores, shopping centers, hospitals, manufacturing or processing plants, garages, storage buildings, hotels, motels, schools, colleges, arenas and other comparable premises. Note that for the application of the Retail Transmission Rate - Network Service Rate and the Retail Transmission Rate - Line and Transformation Connection Service Rate the following sub-classifications apply:

General Service 50 to 1,000 kW non-interval metered

General Service 50 to 1,000 kW interval metered.

Class A and Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge	\$	27.38
Smart Metering Entity Charge - effective until December 31, 2022	\$	0.57
Distribution Volumetric Rate	\$/kWh	0.0178
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kWh	(0.0005)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kWh	(0.0001)
Retail Transmission Rate - Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0049
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

Effective and Implementation Date May 1, 2018 approved schedules of Rates, Charges and Loss Factors

EB-2017-0075

GENERAL SERVICE 50 TO 999 KW SERVICE CLASSIFICATION

This classification refers to a non-residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 1,000 kW. This class includes medium and large-size commercial buildings, apartment buildings, condominiums, trailer courts, industrial plants, as well as large stores, shopping centers, hospitals, manufacturing or processing plants, garages, storage buildings, hotels, motels, schools, colleges, arenas and other comparable premises. Note that for the application of the Retail Transmission Rate - Network Service Rate and the Retail Transmission Rate - Line and Transformation Connection Service Rate the following sub-classifications apply:

General Service 50 to 1,000 kW non-interval metered

General Service 50 to 1,000 kW interval metered.

Class A and Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

The rate rider for the disposition of WMS - Sub-account CBR Class B is not applicable to wholesale market participants (WMP), customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new Class B customers.

The rate rider for the disposition of Global Adjustment is only applicable to non-RPP Class B customers. It is not applicable to WMP, customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new non-RPP Class B customers.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge	\$	206.08
Distribution Volumetric Rate	\$/kW	3.3505
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kW	(0.2848)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kW	(0.0296)
Retail Transmission Rate - Network Service Rate	\$/kW	2.2436
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	1.8598
Retail Transmission Rate - Network Service Rate - Interval Metered	\$/kW	2.3799
Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	\$/kW	2.0557
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

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GENERAL SERVICE 1,000 KW OR GREATER SERVICE CLASSIFICATION

This classification refers to a non-residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 1,000 kW but less than 5,000 kW. Class A and Class B consumers are defined in accordance with O.Reg.429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

The rate rider for the disposition of WMS - Sub-account CBR Class B is not applicable to wholesale market participants (WMP), customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new Class B customers.

The rate rider for the disposition of Global Adjustment is only applicable to non-RPP Class B customers. It is not applicable to WMP, customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new non-RPP Class B customers.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	\$	2,948.48
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kW	(0.2327)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kW	(0.0248)
Retail Transmission Rate - Network Service Rate	\$/kW	2.3799
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	2.0557
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003

Standard Supply Service - Administrative Charge (if applicable)

0.25

\$

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UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification refers to an account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, private sentinel lighting etc. The customer will provide detailed manufacturing information/documentation with regard to electrical demand/ consumption of the proposed unmetered load. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge (per connection)	\$	8.15
Distribution Volumetric Rate	\$/kWh	0.0119
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kWh	(0.0005)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kWh	(0.0001)
Retail Transmission Rate - Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0049
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

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Thunder Bay Hydro Electricity Distribution Inc. TARIFF OF RATES AND CHARGES

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SENTINEL LIGHTING SERVICE CLASSIFICATION

This classification refers to accounts that are an unmetered lighting load supplied to a sentinel light. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge (per connection)	\$	8.05
Distribution Volumetric Rate	\$/kW	6.4587
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kW	(0.1598)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kW	(0.0260)
Retail Transmission Rate - Network Service Rate	\$/kW	1.7008
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	1.4680
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

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STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation and private roadway lighting operation, controlled by photocells. The consumption for these customers will be based on the calculated load times the required lighting times established in the approved Ontario Energy Board street lighting load shape template. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Service Charge (per connection)	\$	1.12
Distribution Volumetric Rate	\$/kW	6.7322
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
Applicable only for Non-RPP Customers	\$/kWh	(0.0001)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	\$/kW	(0.3462)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019		
Applicable only for Class B Customers	\$/kW	(0.0294)
Retail Transmission Rate - Network Service Rate	\$/kW	1.6919
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	1.4378
MONTHLY RATES AND CHARGES - Regulatory Component		
Wholesale Market Service Rate (WMS) - not including CBR	\$/kWh	0.0032
Capacity Based Recovery (CBR) - Applicable for Class B Customers	\$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	\$/kWh	0.0003
Standard Supply Service - Administrative Charge (if applicable)	\$	0.25

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Thunder Bay Hydro Electricity Distribution Inc. TARIFF OF RATES AND CHARGES

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microFIT SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Independent Electricity System Operator's microFIT program and connected to the distributor's distribution system. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge

5.40

\$

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ALLOWANCES		
Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for Transformer Losses - applied to measured demand & energy	%	(1.00)

SPECIFIC SERVICE CHARGES

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Customer Administration

Arrears certificate	\$	15.00
Statement of account	\$	15.00
Easement letter	\$	15.00
Account history	\$	15.00
Returned cheque (plus bank charges)	\$	25.00
Legal letter charge	\$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	\$	30.00
Special meter reads	\$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	\$	30.00
Non-Payment of Account		
Late payment - per month	%	1.50
Late payment - per annum	%	19.56
Disconnect/reconnect at meter - during regular hours	\$	65.00
Disconnect/reconnect at meter - after regular hours	\$	185.00
Disconnect/reconnect at pole - during regular hours	\$	185.00
Disconnect/reconnect at pole - after regular hours	\$	415.00
Install/remove load control device - during regular hours	\$	65.00
Install/remove load control device - after regular hours	\$	185.00
Other		
Service call - customer-owned equipment	\$	30.00
Service call - after regular hours	\$	165.00
Specific charge for access to the power poles - \$/pole/year	\$	22.35
(with the exception of wireless attachments)		

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RETAIL SERVICE CHARGES (if applicable)

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Debt Retirement Charge, the Global Adjustment and the HST.

Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity.

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer	\$	100.00
Monthlyfixed charge, per retailer	\$	20.00
Monthly variable charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing monthly charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing monthly credit, per customer, per retailer	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail		
Settlement Code directly to retailers and customers, if not delivered electronically through the		
Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	\$	no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00

LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor - Secondary Metered Customer	1.0394
Total Loss Factor - Primary Metered Customer	1.0290