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2300 Yonge Street
Toronto ON M4P 1E4
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Ontario

BY E-MAIL

December 17, 2018

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St., 27th Fl.
Toronto ON M4P 1E4

Dear Ms. Walli:

Re: Toronto Hydro-Electric System Limited (Toronto Hydro)
2020-2024 Distribution Rates Application
OEB File No. EB-2018-0165

Please find attached the OEB staff Community Meeting Report for the 2020-2024 Distribution Rates application filed by Toronto Hydro.

Yours truly,

Original signed by

Lawrie Gluck
Case Manager

c: All parties in EB-2018-0165

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

OEB STAFF SUMMARY OF COMMUNITY MEETING

EB-2018-0165

Toronto Hydro-Electric System Limited

Application for 2020 to 2024 Rates

December 17, 2018

TABLE OF CONTENTS

1 INTRODUCTION

Toronto Hydro-Electric System Limited (Toronto Hydro) filed a custom incentive rate-setting application with the Ontario Energy Board (OEB) on August 15, 2018 seeking approval for changes to the rates that Toronto Hydro charges for electricity distribution, to be effective January 1, 2020 and in each following year until 2024. If approved, the amount Toronto Hydro charges each month for the typical residential customer using 750 kWh per month and for the typical General Service < 50kW customer using 2000 kWh per month would decrease in the first year, followed by an increase in each subsequent year by the following amounts:

Year	2020	2021	2022	2023	2024
Residential Bill Impact (per month)	**-$2.32**	**$1.37**	**$1.07**	**$1.89**	**$1.83**
General Service < 50kW Bill Impact (per month)	**-$4.62**	**$3.45**	**$2.68**	**$4.74**	**$4.59**

Toronto Hydro updated its application on September 14, 2018.

A Notice of Hearing was issued on September 28, 2018. Following the Notice of Hearing, the OEB hosted five face-to-face community meetings in Toronto, all of which were livestreamed, and one citywide webinar, as noted below:

November 22, 2018	North York - North York Central Library (afternoon and evening meetings)
November 26, 2018	Scarborough - Scarborough Civic Centre
December 4, 2018	Downtown Toronto - Central YMCA
December 5, 2018	Etobicoke - Royal Canadian Legion
December 6, 2018	Citywide Webinar

The OEB holds community meetings for customers whose utility files a major rate application to ensure customers have the opportunity to ask both the OEB and the utility questions about the requested change in rates. The OEB provides information about the OEB's role in reviewing the rate application and the utility requesting the rate change, in this case Toronto Hydro, provides information about the application itself. Consumers are invited to make presentations and there is a question-and-answer period.

This is the OEB staff report summarizing these community meetings. This report will be placed on the public record of the OEB hearing of this application along with copies of any written presentations made at the meetings. This report includes a summary of comments, questions and concerns raised during the community meetings by

customers who attended the meetings. This summary is intended to capture the range of perspectives that were shared, rather than to provide a verbatim transcript of the meetings.

Customers are also able to submit individual written letters of comment with the OEB, either during a community meeting or any other time during the course of the OEB's review of an application. The OEB places written letters of comment on the public record of the specific proceeding. All comments must be submitted to the OEB before the decision-makers in that case begin to consider their decision on the application. In making its decision, the OEB considers everything on the public record, including all comments when determining whether to grant the requests made by Toronto Hydro in this application.

2 THE PROCESS

The OEB convenes community meetings in the service territories of local distribution companies that have applied to the OEB to change their rates through a cost of service or custom incentive rate-setting proceeding.

Community meetings are part of the OEB's process of reviewing a rate application. The OEB has established a Consumer Engagement Framework to ensure that the perspectives of customers served by rate-regulated entities are considered in the OEB's decision-making process.

Community meetings are hosted by OEB staff who inform customers about the role of the OEB in rate-setting and the processes involved. OEB representatives explain the various ways that customers can become involved in the adjudicative process. A copy of OEB staff's presentation is attached to this report as Schedule A.

To assist customers better understand the application, the utility makes a presentation explaining its proposals for capital, operations and other spending that result in the requested rate change. A copy of Toronto Hydro's presentation is attached to this report as Schedule B.

Customers are also invited to make presentations outlining their thoughts on the utility's proposals.

Following the presentations, customers have the opportunity to ask questions of the OEB and the utility about the application and the regulatory process. The issues raised by customers in the community meetings are documented and used by OEB staff in reviewing the application, asking interrogatories and making submissions to the OEB panel hearing and deciding the application. Any verbal comments provided to OEB staff at the community meeting are summarized in this report with no attribution.

In addition to providing verbal comments to OEB staff, customers attending the meetings may express their concerns directly to the OEB by providing individual comments (with attribution) through an online form; by filling in a hard copy comment form, or by submitting a separate letter of comment.

3 SUMMARY OF THE MEETING

The OEB community meetings to review Toronto Hydro's distribution rate application were held across Toronto, as set out in section 1.0. Five meetings were held in the evening from 6:30 p.m. to 8:30 p.m. and one meeting was held in the afternoon from 3:30 p.m. to 5:30 p.m. All of the face-to-face meetings were livestreamed on the internet and the recordings are available on the OEB's website at www.OEB.ca/participate. A total of 186 consumers participated in the meetings. Attendees and online viewers heard presentations from OEB staff and Toronto Hydro. Prior to the in-person presentations, OEB staff and Toronto Hydro staff were available to informally talk to attendees and answer questions. OEB and Toronto Hydro representatives responded to questions from attendees during and following the presentations.

The following OEB staff and Toronto Hydro representatives attended some or all of the meetings:

OEB Staff

Michael Millar, Counsel, Legal Services
Rudra Mukherji, Associate Registrar
Jane Scott, Manager, Major Applications
Lawrie Gluck, Project Advisor, Major Applications
Lillian Ing, Hearings Advisor
Cherida Walter, Hearings Advisor
Sylvia Kovesfalvi, Manager, Community Relations and Outreach
Lynn Ramsey, Senior Advisor, Community Relations and Outreach
Andrew Bodrug, Senior Advisor, Community Relations and Outreach
Mandy Usprech, Advisor, Community Relations and Outreach

Toronto Hydro

Amanda Klein, Executive Vice-President, Regulatory Affairs & General Counsel
Elias Lyberogiannis, General Manager, Engineering
Andrew Sasso, Director, Regulatory Affairs
Sheikh Nahyaan, General Manager, Distribution Grid Operations & Emergency Management
Matthew Higgins, Manager, Regulatory Applications
Evelyn Page, General Manager, Customer Care & Revenue Services
Kaleb Ruch, Manager, Government & Regulatory Policy
Daliana Coban, Manager, Regulatory Law
Brian Buchan, Director, Media, Communications & Municipal Stakeholder Relations
Thelma Hatzis, Communications Specialist

Cindy Brooks, Government & Public Affairs Consultant
Jesse Dhaliwal, Government & Public Affairs Consultant
Julian Garas, Senior Consultant, Innovative Research Group (external Toronto Hydro service provider)

THEMES HEARD AT THE MEETINGS

The OEB and Toronto Hydro presented at each of the meetings. Eight customers made presentations and copies of the six presentations were provided to the OEB and are attached to this report as Schedule C. Two presenters did not provide copies of their presentations and their comments are summarized in the following section. Some of the common messages or comments heard from attendees included:

- Difficulty understanding the bill for residential and small business consumers, specifically the fixed and variable components of the delivery charge
- Difficulty estimating how proposed increases apply to consumers' individual bills
- Frustration with the ineffectiveness of individual conservation efforts, the rising cost of electricity, high delivery charges and confusion around high delivery charges when consumption is low
- Efficiency of Toronto Hydro's operations and information on asset management practices
- Support for introduction of more conservation programs and investments in new technology to help mitigate bill increases
- Concerns with time-of-use rates and the timing of the rate periods

Issues and Comments Directly Related to Toronto Hydro's Application:

- Frustrations with bill presentation and complexity of the bill
- Information on the delivery charge and the fixed and variable components of the delivery charge
- Concern over the 18% to 22% annual increase in the fixed charge over two years and the related concern that the delivery cost for low volume consumers is higher than their electricity cost
- Concerns over the cumulative impact of increases, the fact that increases to other components of the bill are not known and opposition to the requested increase
- Clarifications regarding the bill impacts and the "average" bill increase
- Inability of the bill calculator on Toronto Hydro's website to accurately estimate the impact of the proposed increases on individual bills

- Information on how to assess bill impact reductions from the Fair Hydro Act
- A representative from a small business association expressed concern over the high cost of electricity, bill presentation and noted the need for better online tools and resources for business consumers to better manage consumption and forecast bills
- Rationale for refunding profits from the sale of properties to customers instead of investing in the system to mitigate future increases
- Reasons for the increase in customer billing costs when customers are migrating to e-bills
- Steps and measures in the current application to improve call centre performance
- Clarification regarding service quality and how it is assessed
- Information on the Toronto Hydro's efficiency measures to mitigate rate increases
- Clarifications regarding planning of capital projects, recovery of costs to connect new developments, coordination of construction activities and vegetation management
- Concern that Toronto Hydro has not allocated appropriate funds to reducing greenhouse gas emissions and the application lacks a commitment to combating climate change
- Information on conservation programs to help consumers more effectively manage electricity bills
- Information on electric vehicle charging stations
- Support for investment in innovation, new technology and safety of the system
- Clarification regarding procurement policies and whether the policies promote Ontario manufacturing and technology companies
- Clarification regarding certain proposed capital and Operations, Maintenance & Administration programs
- Clarification regarding the dividend paid by Toronto Hydro to the City of Toronto and the forecast of dividends
- Clarifications regarding the rate of return on investments
- Clarifications regarding Toronto Hydro's rate filing cycle and related rate increases
- Concerns regarding outages in areas supplied by worst performing feeders
- Clarifications regarding capital planning and considerations for asset replacements
- Request for more conservation programs to mitigate the rising cost of electricity and consideration for a luxury tax on high users
- Concern over the high cost to connect MicroFIT projects

- Details about preparedness for extreme events and investments in system resiliency
- Clarification on Toronto Hydro's service quality and reliability metrics and measures
- Concerns related to timing of billing and a preference that it be coordinated with CPP/OAS cheques so seniors get their pension cheques first, then their Toronto Hydro bills.

Issues Not Directly Related to Toronto Hydro's Application:

- Concerns over the high cost of power in Ontario
- Information on system planning considerations, Ontario's electricity generation mix, reasons for high cost of power in Ontario and exporting of excess power
- Support for more investments in nuclear generation
- Information on the OEB's budget and operations, sources of funding and qualifications of Board Members
- The Ontario Electricity Support Program credit is low compared to the requested rate increase over the 5 year term of the rate plan
- Concerns over management of Ontario's energy sector, including high salaries in the hydro sector
- Information on Global Adjustment and reason why it is not itemized on the bill
- Information on how the costs of the cancelled gas plants are being recovered

SUMMARY OF PRESENTATIONS

This section of the report summarizes the presentations of the two attendees who did not provide a copy of their presentation.

Downtown Toronto, Central YMCA - December 4, 2018

Julie Game was concerned by the level of new construction in Toronto and wanted to understand how connection costs are recovered. Ms. Game noted that time-of-use pricing was inconvenient and was unfair to low-income and fixed income consumers. Ms. Game supported block pricing and streamlining of the registration process for the Ontario Electricity Support Program.

Etobicoke, Royal Canadian Legion - December 5, 2018

John Siwinski, ratepayer, felt that salaries in the hydro industry in general are too high. Mr. Siwinski supported more conservation programs and introduction of a luxury tax for high users. Mr. Siwinski recommended that Toronto Hydro consumers should dim lights by 10% throughout the city to conserve and that Toronto Hydro should invest in more underground cables.

Please refer to Schedule C for the other consumer presentations.

4 LETTERS OF COMMENT

The OEB received 15 letters of comment from attendees. The comments related to Toronto Hydro's rate application are consistent with those noted in section 3 of this report and therefore are not re-stated in this section.

SCHEDULE A

ONTARIO ENERGY BOARD PRESENTATION

TORONTO HYDRO DISTRIBUTION RATE APPLICATION

EB-2018-0165

NOVEMBER 22, 2018 – DECEMBER 6, 2018

ONTARIO ENERGY BOARD

OEB's Rate Review Process Getting Involved

OEB Community Meetings

Toronto Hydro's Rate Application

November 22 – December 6, 2018

Every Voice Matters

Meeting Objectives

- Learn more about your utility's costs and rate application
- Find out how to get involved in the OEB's process
- Provide your comments about your utility's application.

Who We Are

We are an independent regulator responsible for Ontario's electricity and natural gas sectors.

We support and guide the continuing evolution of Ontario's energy sector by promoting outcomes and innovation that deliver value for all Ontario energy consumers.

What We Do

Protect Consumers (Set and Enforce Rules)

Engage and Inform Consumers

Set Rates and Approve New Facilities and Mergers

Energy Support Programs (OESP & LEAP)

Licence Energy Companies

Ontario's Electricity Sector

Generation

Transmission

Distribution

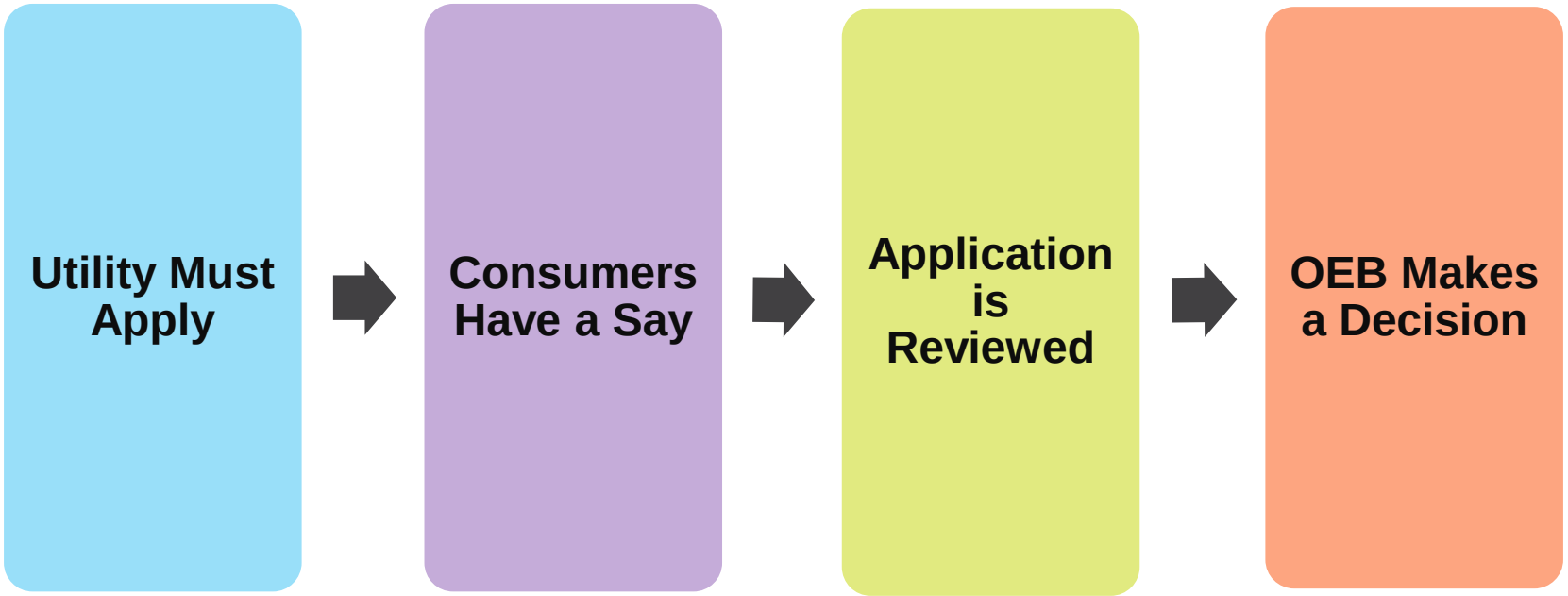
Home

Delivering Value – Ensuring Reliability

Prices, reliability & quality of service

Financially viable energy sector

Holding Utilities to Account



Step One - Utilities Must Apply

Utilities Must Apply

- Every 5 years
- OEB closely examines costs, investments, plans and productivity
- Consumers are made aware through newspapers, websites, social media and bill inserts.

Step Two – Consumers Have a Say

Consumers Have a Say

- Giving consumers a stronger voice
- Making it easier to participate
- Hosting local community meetings
- Consumer feedback becomes part of the record
- Decision-makers see consumer comments

Step Three – Application is Reviewed

Application is Reviewed

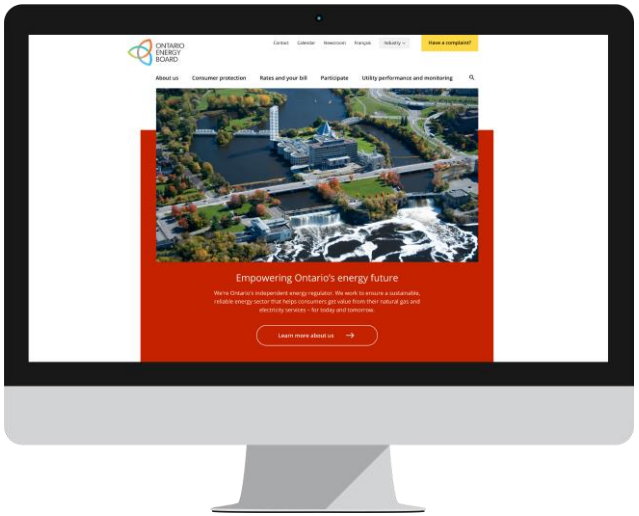
Step Four – OEB Makes a Decision

OEB Makes a Decision

- The OEB rarely gives utilities all they ask for.
- Since 2009 the OEB has reviewed more than 140 major rate applications, and reduced requested rate increases by an average of about 38 per cent.

OEB's Rate Review Process – Have Your Say

Your Voice Matters – Thank You



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www.oeb.ca

@OntEnergyBoard

Ontario Energy Board
2300 Yonge St, Suite 2701,
Toronto, ON M4P 1E4

SCHEDULE B

TORONTO HYDRO PRESENTATION

TORONTO HYDRO DISTRIBUTION RATE APPLICATION

EB-2018-0165

NOVEMBER 22, 2018 – DECEMBER 6, 2018




Toronto Hydro: 2020-2024

Distribution Rates Application

Overview

TORONTO HYDRO®

Agenda

- Who We Are
- Customer Feedback
- Our Proposed Plan

Your Bill

Typical Residential Bill

Sample Toronto Hydro Monthly Bill
(Based on consumption of 750 kWh)

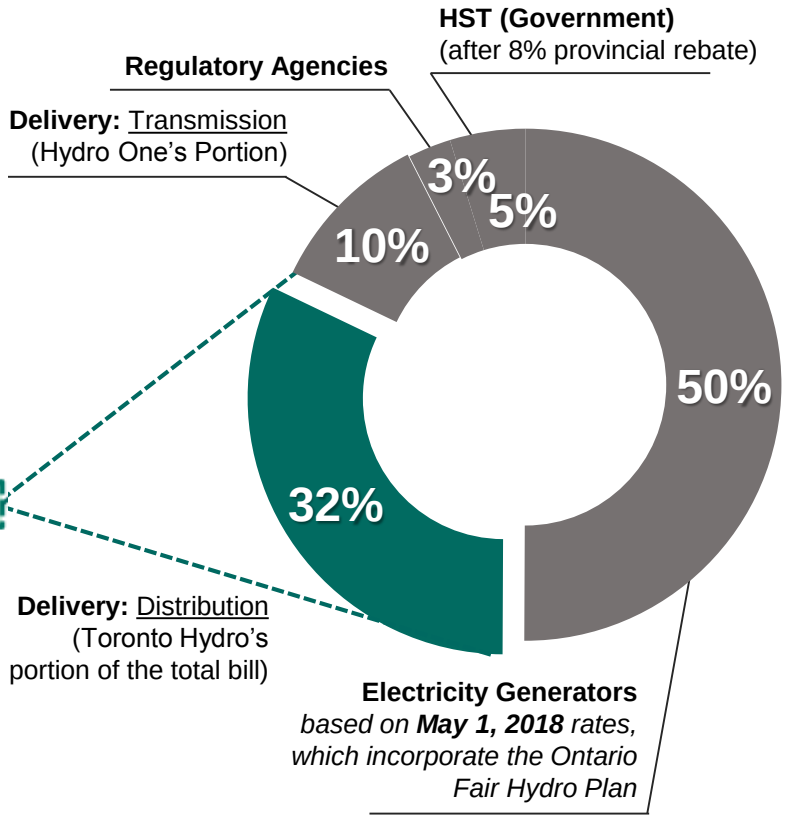
Account Number:
000 000 000 000 0000

Meter Number:
00000000

Toronto Hydro's portion of the bill: **$39.19**

Your Electricity Charges	
Electricity	
On-Peak (Highest Price) @ $0.132 /kWh	17.82
Mid-Peak (Mid Price) @ $0.095 /kWh	11.99
Off-Peak (Lowest Price) @ $0.065 /kWh	31.69
Delivery	52.21
Regulatory Charges	3.28
Debt Retirement Charge†	0.00
Total Electricity Charges	**$116.99**
HST	15.21
8% Provincial Rebate*	(-$9.36)
Total Amount	**$122.84**

*The Ontario government is providing a rebate on your electricity costs equal to the provincial portion of the HST



Proposed Plan: Costs

	Usage [kWh]	Average ($)	Change in bill
Residential	750	**$0.77**	$/per month
General Service <50 kWh (small business)	2,800	**$2.71**	$/per month

1.7%
AVERAGE ANNUAL INCREASE ON TORONTO HYDRO'S 1/3 OF THE BILL
(RESIDENTIAL)

These costs shown are the average annual impacts on your monthly bill for each of the five years of the plan (2020-2024)

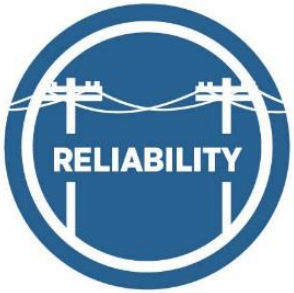
BELOW THE RATE OF INFLATION

Customer Feedback: Process

1. Ask Customers what the Plan's Priorities should be.
2. Use Customer Priorities to prepare the Plan.
3. Ask Customers about the Plan.
4. Use Customer Feedback to refine the Plan.
5. Submit the Plan to the Ontario Energy Board.
6. Present at Ontario Energy Board Community Meetings.
7. Ontario Energy Board holds Public Hearing and issues Final Decision.

We Are Here

Feedback: Priorities, Goals and Choices



INCORPORATES **CUSTOMER** PRIORITIES

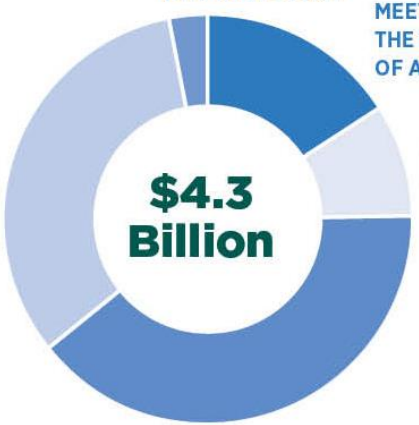
APPROXIMATELY **2/3** OF RESIDENTIAL CUSTOMERS SUPPORT OUR PLAN OR ONE THAT DOES EVEN MORE TO IMPROVE SERVICES

The Proposed Plan

INNOVATION AND PLANNING FOR THE FUTURE

MEETING THE NEEDS OF A GROWING CITY

OPERATING AND MAINTAINING THE GRID



KEEPING THE BUSINESS RUNNING

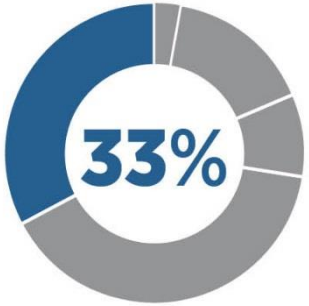
ADDRESSING SAFETY AND RELIABILITY

1.7%

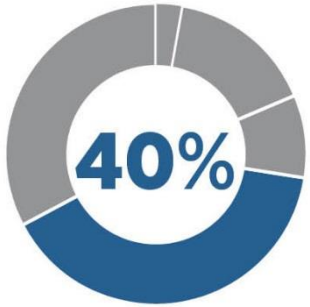
AVERAGE ANNUAL INCREASE ON TORONTO HYDRO'S 1/3 OF THE BILL
(RESIDENTIAL)

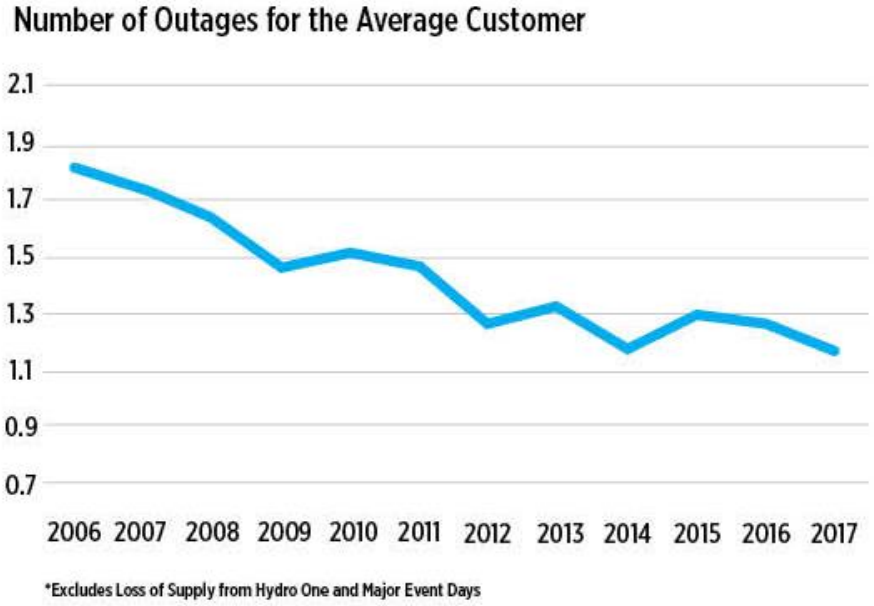
1

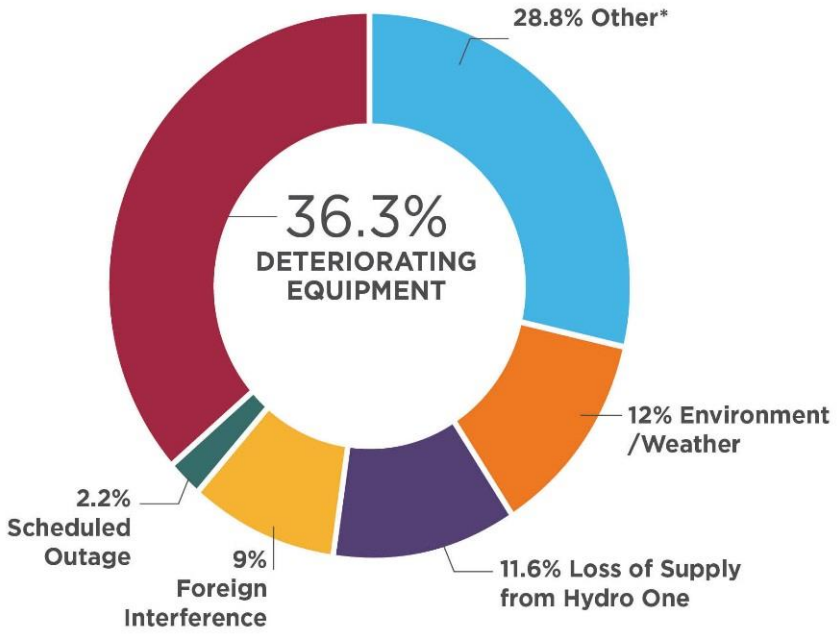
Operating and Maintaining the Grid



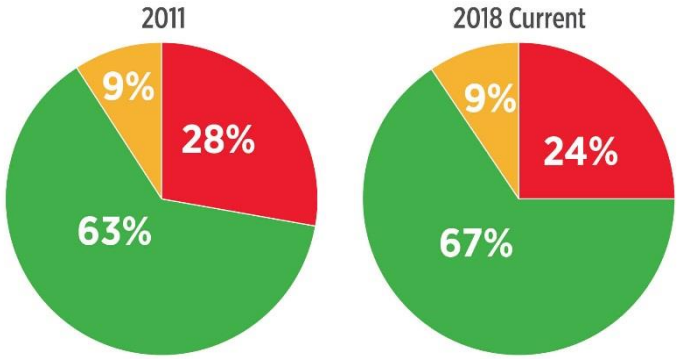
2 Addressing Safety and Reliability

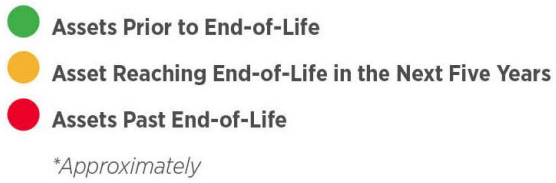




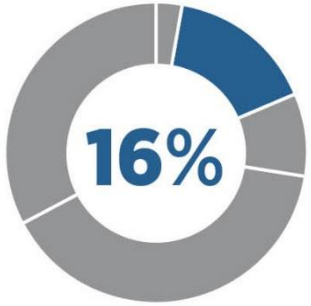


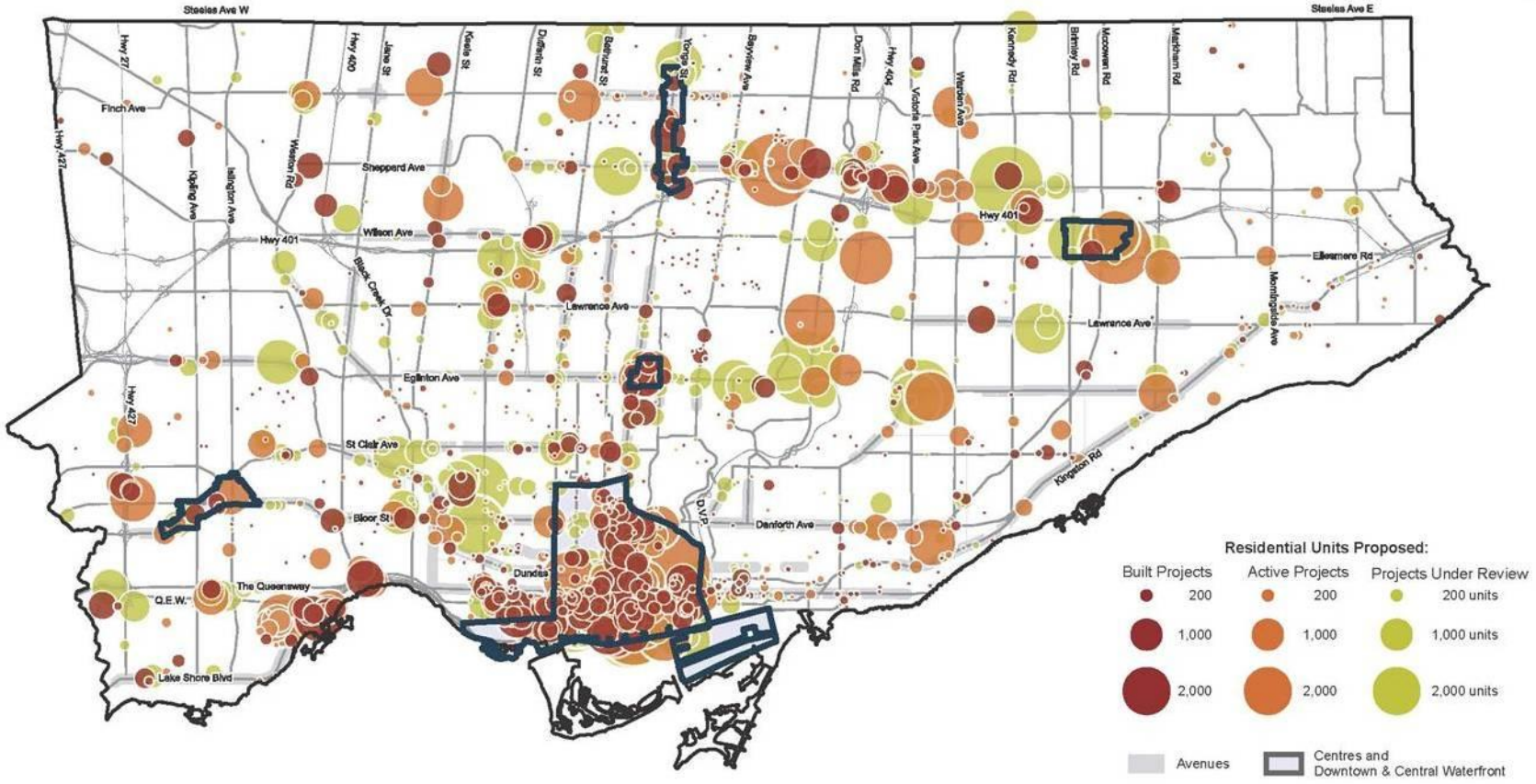
*Tree Contacts, Human Elements





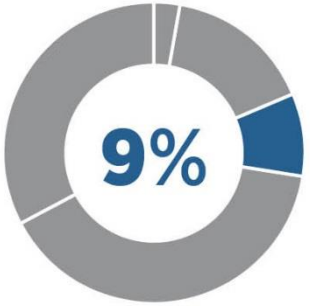
3 Meeting the Needs of a Growing City





Source: Toronto City Planning Division, Research and Information, September 2016

4 Keeping the Business Running



5 Innovation & Planning for the Future

2020-2024 Proposed Plan

Thank You

TORONTO HYDRO®

Disclaimer

The information in these materials is based on information currently available to Toronto Hydro Corporation and its affiliates (together hereinafter referred to as “Toronto Hydro”), and is provided for information purposes only. Toronto Hydro does not warrant the accuracy, reliability, completeness or timeliness of the information and undertakes no obligation to revise or update these materials. Toronto Hydro (including its directors, officers, employees, agents and subcontractors) hereby waives any and all liability for damages of whatever kind and nature which may occur or be suffered as a result of the use of these materials or reliance on the information therein. These materials may also contain forward-looking information within the meaning of applicable securities laws in Canada ("Forward-Looking Information"). The purpose of the Forward-Looking Information is to provide Toronto Hydro’s expectations about future results of operations, performance, business prospects and opportunities and may not be appropriate for other purposes. All Forward-Looking Information is given pursuant to the "safe harbour" provisions of applicable Canadian securities legislation. The words "anticipates", "believes", "budgets", "could", "estimates", "expects", "forecasts", "intends", "may", "might", "plans", "projects", "schedule", "should", "will", "would" and similar expressions are often intended to identify Forward-Looking Information, although not all Forward-Looking Information contains these identifying words. The Forward-Looking Information reflects the current beliefs of, and is based on information currently available to, Toronto Hydro’s management. The Forward-Looking Information in these materials includes, but is not limited to, statements regarding Toronto Hydro’s future results of operations, performance, business prospects and opportunities. The statements that make up the Forward-Looking Information are based on assumptions that include, but are not limited to, the future course of the economy and financial markets, the receipt of applicable regulatory approvals and requested rate orders, the receipt of favourable judgments, the level of interest rates, Toronto Hydro’s ability to borrow, and the fair market value of Toronto Hydro’s investments. The Forward-Looking Information is subject to risks, uncertainties and other factors that could cause actual results to differ materially from historical results or results anticipated by the Forward-Looking Information. The factors which could cause results or events to differ from current expectations include, but are not limited to, the timing and amount of future cash flows generated by Toronto Hydro's investments, market liquidity and the quality of the underlying assets and financial instruments, the timing and extent of changes in prevailing interest rates, inflation levels, legislative, judicial and regulatory developments that could affect revenues, and the results of borrowing efforts. Toronto Hydro cautions that this list of factors is not exclusive. All Forward-Looking Information in these materials is qualified in its entirety by the above cautionary statements and, except as required by law, Toronto Hydro undertakes no obligation to revise or update any Forward-Looking Information as a result of new information, future events or otherwise after the date hereof.

SCHEDULE C

CONSUMER PRESENTATIONS

TORONTO HYDRO DISTRIBUTION RATE APPLICATION

EB-2018-0165

NOVEMBER 22, 2018 – DECEMBER 6, 2018

1. **IRA KOULIK**
2. **JOHN KITAY**
3. **LYNN MCDONALD**
4. **MARK BLANS**
5. **NORMAN HANN**
6. **SHAROLYN VETTESE**

ONTARIO ENERGY BOARD | COMMISSION DE L'ÉNERGIE DE L'ONTARIO

COMMUNITY MEETING CUSTOMER PRESENTATION

Thank you for attending the Ontario Energy Board's (OEB) Community Meeting.
Your presentation is intended explain to the OEB how you are impacted by your utility's requested changes. In particular, please tell us what you support (what you like) and what your concerns are (what you do not like) about your utility's application to the OEB. You can also raise questions you would like addressed.
Oral presentations are limited to 5 minutes.

By signing and submitting this document to the OEB, you agree to have your name, your comments and any documents you provide made public on the OEB's website and shared as part of the public record in the case (case number entered by you below). Any personal contact information (such as your telephone number, home address and email address) **WILL NOT** be made public on the OEB's website or otherwise shared with any person outside of the OEB.

Meeting Date: December 5, 2018 City: Toronto

Utility Name: Toronto Hydro EB#: 2018-00165

First and last name: Ira Koulik

Mailing address: [redacted]

Email address:

Phone number: [redacted]

I am a: Residential customer [x] Business customer [ ] Both [ ]

If you are submitting a comment on behalf of a business, any business contact information **WILL** be made public on this website and shared as part of the public record of the case named below.

Topic from rate application
Why the increase the rates when people cannot afford the rates they charge now?

Your comments/questions
The average person on a fixed income, elderly or single parents, who sometimes live with income between $700-$1500/mth are already having a hard time with paying the fees now. With exhorbitant estimate billings to actual reading catch up payments, Toronto Hydro has dropped the ball on taking care of their customers. The claim is that these rates hikes are necessary to improve infrastructure and protect from cyber threats, but it seems very unwilling to even explain how they are coming up with the charges that are currently being paid by the consumers. An example is Hydro One giving themselves $25,000 salary increase to almost $200,000 a year for part time work. They try to claim it is for the benefit of the end user, however it is not what the financial statements are showing. For many people who have to pay hydro, even an increase of 'only1.7%' a year will ultimately result in a 10% rate increase by the end of the rate application term. For someone who is living off senior pension of $1,100, an increase of 10% on their hydro bill is a substantial amount of money for them to pay. When OPGis giving themselves these ridiculous bonuses and payouts, why is it the consuer who is asked to cover the bill? Will OEB acknowledge that not everyone gets a pay increase of 1.7% yearly? Can the OEB understand that 1.7% is a large ask for many on a fixed income.

Topic from rate application

OEB states they regulate monopolies, however do not ensure transparency in the services provided to the consumer.

Your comments/questions

A question on your own website states, 'How can I lower my rates?'
My father is a very frugal man and is very earth consious. When he recieves bills from Toronto Hydro, where the usage cost is $0.09 and the delivery charge is $39, you can understand why he is very upset. To top this off, when he would call into the Hydro helpline, no one there could explain why the delivery charge is so much, when there is essentially no power being used. Now, to top this off, the delivery fee is not consistent. FOr a usage fee of $1.41, the delivery charge was $32. How is this supposed to promote energy conservation and smart usage. When Toronto Hydro forced everyone to use the smart meters under the guise of lowering their hydro bills, they never mentioned that the bills would be the same; high and unexplainable.
According to the OEB website, and estimate calculator put 1kwh of usage at $32 delivery charge, again not sure for what, but not near the $39 that was charged. And still, for what delivery? There was no power their to deliver. Again, for pensioners and people on tight fixed incomes, this $500 charge is a lot. And now, Toronto Hydro wants to increase the fees again. FOr what? Other than the Ontario Electricity SUpport Program, which is not widely known about, can you explain why the OEB would support this rate hike, yet again? And can you explain how Toronto Hydro can continue to rule the monopoly without any transparency? Even with this rate hike application, they are witholding infomation, claiming it is third party proprietary knowledge. Is it?

Topic from rate application

The Debt Retirement Charge

Your comments/questions

The 8% Debt reitrement charge was very difficult for my father to understand. WHen it was implamented it had a direct purpose and funds that it was paying off. Then Toronto Hydro continued to collect the monies and use it for its daily operating expenses. This year in March it was offically cancelled, however, the damage was already done. The money was taken and misused and Toronto Hydro was not hekd accountable for these management practices. Is OEB going to do anything about that? Will you be pushing Toronto Hydro to get that money back now to the people of Toronto? The province has tried to help by rebating the provincial taxes paid for electricity, will OEB get that money back and ensure this type of mismanagement does not happen again. We understand the people making these decisions have no problems paying their bills, however, their are many that cannot pay and are having a hard time. Furthermore, may the OEB ensure the electricity rebate program is delivered based on Tax submissions without specific need for another program application.

Signature

December 5, 2018

Date

Toronto Hydro-Electric System Limited

YOUR ELECTRICITY BILL

TORONTO HYDRO

Account Number [redacted]
To be used for payments

Premise number [redacted]

Bill Print Date 09111[redacted]

Meter Number [redacted]

Statement Date	Sep 10 2018
Amount Due	$39.99
Due Date	Sep 30 2018
Amount Paid	

416.542.8000 www.torontohydro.com

Interest will be charged on any amount not received by the due date at the rate of 1.5% compounded monthly (19.56 % per annum) from the due date until receipt of such amount and all accrued interest

Service Location: [redacted]

Your Electricity Charges

Electricity
Electricity distributed by TORONTO HYDRO

Time of use - Summer

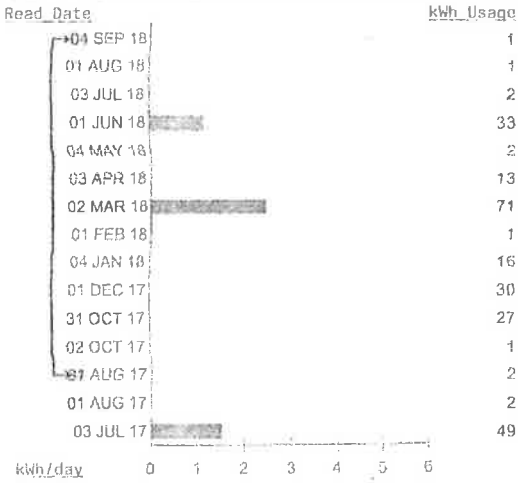
0.230 kWh On-peak (Highest Price) @ $0.132 / kWh	0.03
0.220 kWh Mid-peak (Mid Price) @ $0.094 / kWh	0.02
0.550 kWh Off-peak (Lowest Price) @ $0.065 / kWh	0.04
Delivery	37.72
Regulatory	0.28
Your Total Electricity Charges	38.09
H.S.T. (H.S.T. Registration 896718327RT0001)	4.95
8% Provincial Rebate	3.05CR

Your Previous Charges

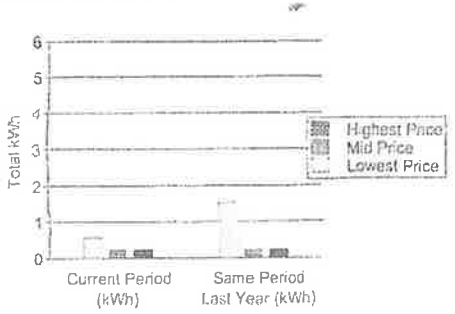
Amount of last bill	34.13
Payment Received Aug 27 2018 - Thank You	34.13CR
Balance Forward	0.00
Amount to be Withdrawn Sep 30 2018	$39.99

$3.04

Compare your daily usage



Time of use Comparison



Air conditioning can make up 50% of a summer bill.

Manage the impact of hot weather on your bill by following our energy savings tips. Visit torontohydro.com/conservationtips

Your electricity usage

Meter Number	Meter Reading Period	Number of Days	Read Type	Current Reading	Previous Reading	Billing Mult.	kWh Used	Loss Factor Adjustment	Adjusted kWh Used
[redacted]	AUG 01 2018 TO SEP 04 2018	34	Act.	4592	4591	1	1	1.0376	1.036

Ontario's Fair Hydro Plan saved you $3.11 on your bill. This includes the 8% Provincial Rebate.

Toronto Hydro-Electric System Limited

YOUR ELECTRICITY BILL

TORONTO HYDRO

Account Number [redacted]
To be used for payments

Premise number [redacted]

Bill Print Date 10061[redacted]

Meter Number [redacted]

Statement Date	Oct 05 2018
Amount Due	$33.74
Due Date	Oct 25 2018
Amount Paid	

416.542.8000 www.torontohydro.com

Interest will be charged on any amount not received by the due date at the rate of 1.5% compounded monthly (19.56 % per annum) from the due date until receipt of such amount and all accrued interest.

Service Location: [redacted]

Your Electricity Charges

Electricity
Electricity distributed by TORONTO HYDRO

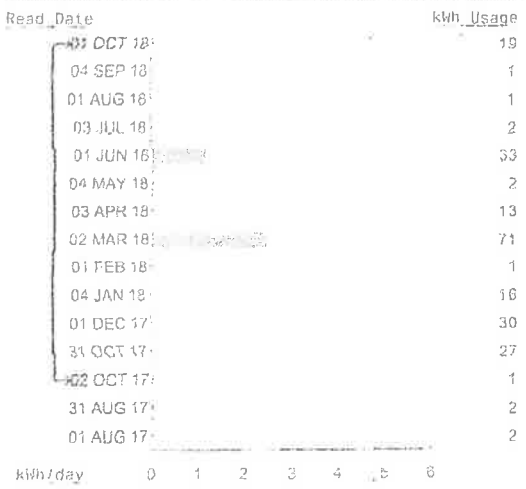
Time of use - Summer

2.070 kWh On-peak (Highest Price) @ $0.132 / kWh	0.27
1.480 kWh Mid-peak (Mid Price) @ $0.094 / kWh	0.14
15.450 kWh Off-peak (Lowest Price) @ $0.065 / kWh	1.00
Delivery	30.41
Regulatory	0.31
Your Total Electricity Charges	32.13
H.S.T. (H.S.T. Registration 896718327RT0001)	4.18
8% Provincial Rebate	2.57CR

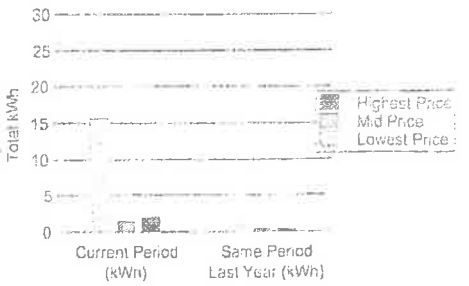
Your Previous Charges

Amount of last bill	39.99
Payment Received Sep 28 2018 - Thank You	39.99CR
Balance Forward	0.00
Amount to be Withdrawn Oct 25 2018	**$33.74**

Compare your daily usage



Time of use Comparison



For a chance to win FREE Hydro for a year, switch to eBills before October 31. Visit torontohydro.com/ebills to find out more.

Your electricity usage

Meter Number	Meter Reading Period	Number of Days	Read Type	Current Reading	Previous Reading	Billing Mult.	kWh Used	Loss Factor Adjustment	Adjusted kWh Used
[redacted]	SEP 04 2018 TO OCT 01 2018	27	Act.	4611	4592	1	19	1.0376	19.712

Ontario's Fair Hydro Plan saved you $3.53 on your bill. This includes the 8% Provincial Rebate.

Toronto Hydro-Electric System Limited

YOUR ELECTRICITY BILL

TORONTO HYDRO®

Account Number [redacted]
To be used for payments

Premise number [redacted]

Bill Print Date 110218

Meter Number [redacted]

Statement Date	Nov 01 2018
Amount Due	$155.97
Due Date	Nov 21 2018
Amount Paid	

416.542.8000 www.torontohydro.com

Interest will be charged on any amount not received by the due date at the rate of 1.5% compounded monthly (19.56 % per annum) from the due date until receipt of such amount and all accrued interest

Service Location: [redacted]

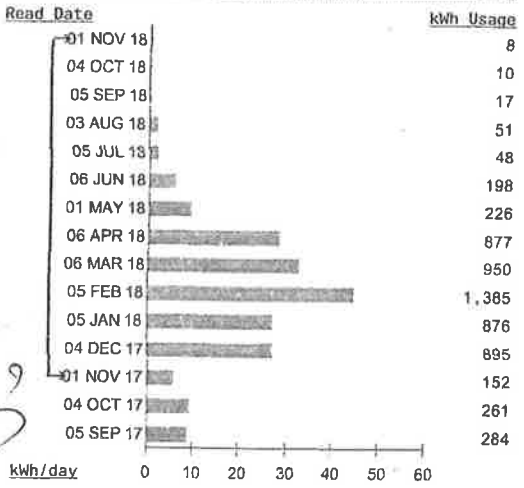
Your Electricity Charges

Electricity
Electricity distributed by TORONTO HYDRO

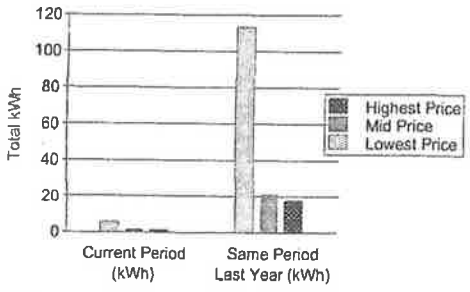
Time of use - Summer

1.440 kWh On-peak (Highest Price) @ $0.132 / kWh	0.19
1.470 kWh Mid-peak (Mid Price) @ $0.094 / kWh	0.14
5.090 kWh Off-peak (Lowest Price) @ $0.065 / kWh	0.33
Delivery	31.23
Regulatory	0.26
Your Total Electricity Charges	**32.15**

Compare your daily usage



Time of use Comparison



Conditions of Service are changing January 1, 2019. Visit torontohydro.com/conditionsofservice. Submit comments to conditionsofservice@torontohydro.com

Your electricity usage

Meter Number	Meter Reading Period	Number of Days	Read Type	Current Reading	Previous Reading	Billing Mult.	kWh Used	Loss Factor Adjustment	Adjusted kWh Used
[redacted]	SEP 28 2018 TO OCT 26 2018	28	Act.	60941	60933	1	8	1.0376	8.3

The Fundamental Flaw in the Ontario Electricity Model.
Presented At:
Ontario Energy Board Community Meeting – Toronto Hydro
North York Evening, OEB File Number EB-2018-0165,
Thursday, November 22, 2018.
By: John Kitay, C.E.T., BA, MBA

The Ontario electricity generation and delivery system is an essential service that determines the wellbeing of the provincial economy and the welfare of its people.

Prior to the Mike Harris election about 25 -30 years ago, Ontario, and most of the electric utilities in the country ran off the Sir Adam Beck Model of "Power for the People at Cost."

I was paying between 5 and 6 cents per kWh delivered to my house by North York Hydro.

Being very mindful of the time of use pricing, I paid 15 1/2 cents per kWh on my last bill.

There is an electricity charge.

There is a regulatory charge.

There is an HST tax charge.

There are other indirect dispersed hidden costs that you don't see on your bill. For example; hydro's income taxes, property taxes, line losses, electrical inspection, safety.

We didn't have these charges before Mike Harris.

But where did this current, confusing, unworkable system come from?

I suggest that about 30 – 35 years ago a group of California accountants, an economist, and probably a couple of financiers were sitting around talking about the problem of managing and evaluating electric utilities - how efficient are they etc.

(Please note the missing electrical technical person.)

The eureka moment came when someone claimed that one kWh is indistinguishable from another and is therefore a commodity.

No one seemed to ask why the 10's of thousands of scientists, electrical engineers, and other technical people, had never come up with this stroke of genius over the last 100 years.

I suggest that this is when they ordered another round for the house.

The accountants were thrilled that they could plug in existing financial statement ratios for commodities companies like oil, pork bellies, and beans - not only to evaluate their performance and well-being, but could actually run a utility like Ontario Hydro, Toronto Hydro, etc.

The financiers could use their existing computer models to evaluate investments and create electricity as a new money making commodity.

Utilities could buy the cheapest kWh's anywhere and wheel it through the transmission network, and an electric futures market could be created.

Electricity was simplified. There now appeared no mystery about it anymore.

This was exciting!

Accountants now thought that they now knew all about electricity generation, transmission, and distribution.

The politicians knew that they knew.

The California model was born!

So was the Enron fiasco. Enron was the result of a merger between a gas and an electricity commodities company.

Other new electricity commodities companies were formed. Control of the California electricity supply through electricity supply contracts were formed and prices to the consumers shot through the roof.

However, there was the myth that prices could be controlled by Keynesian economics of increasing the supply, and increasing the competition that would force prices down.

Ralph Klein in Alberta got elected on this platform of promised consumer price decreases through breaking up government owned monopolies and selling the pieces to private interests to create competition between the generating and wires companies.

Not to be out done, and the fact that the election worked for Ralph Klein, Mike Harris promised that, if elected, he would drop the price of electricity by 30%.

Harris promised to cut the big, fat, overpaid, hydro down to size.

The good government, bad Hydro fable, was born, and fostered by all the Ontario governments since, while they raped hundreds upon hundreds of millions of dollars of Hydro's assets that we the ratepayers paid for.

Good government, bad hydro, was a giant smoke screen to cover a huge tax grab that helped pay for the Harris tax cuts.

Last year alone, the big bad overpaid Hydro One paid good government somewhere around $1.5 Billion in dividends.

To support the competition within the new strategy and structure, Harris promised the allowance of a profit margin for the purpose of dividends to the market participants.

(Remember, previously it was power for the people at cost.)

5% profit to the generator,
10 % " " " transmission company (Hydro One)
5 % " " " distribution company and default retailer (Toronto Hydro)

5 % " " " retail company who the consumer contracts with

That's 25% without compounding which wasn't in the price before.

Now we add the 13 % HST which wasn't in the price before because the utilities were non-profit companies.

Without compounding, we now had an increase of 38% in the price which we immediately saw.

My bill went from 5-6 cents/kWh to 12-13 cents.

Ralph Klein sent out something like $250.00 cheques to offset the price increase that Albertans were hit with. He got the money from oil revenues.

Mike didn't have the oil revenues.

THIS IS ALL BECAUSE SOME NON-TECHNICAL POWERFUL PEOPLE MADE AN ASSUMPTION THAT A KWH IS A COMMODITY, WHEN INFACT, A KWH DOES NOT EXIST.

You can not take a handful of kwh's and put them into a bowl, or anything else. You can not warehouse, or ship them.

You can put 100 pork bellies in a truck and drive them 200 km's and still have 100 pork bellies when you get there.

Electrical flow incurs line losses. Those transmission lines that you see just up the road here are probably running at about 70 degrees C. It takes a lot of kW's to heat those lines up.

The kW over time are lost kWh's.

If you try to wheel power from the lowest cost seller it would be very astute of you to consider the line loses which the California model did not seem to do.

You can not ship or transmit kWh's.

A kwh is a CALCULATION of Watts over time AT THE POINT OF MEASUREMENT.

The electricity meter is not like a water meter that is counting liters as they go by.

Generators are rated in kW and generate kW, according to the loading, at the rated Voltage.

No loading, no kW generated.

Simply put, a kWh meter measures volts and amps and calculates kWh's at the point of measurement.

SO WHAT DOES THIS TECHNICAL STUFF MEAN TO ME?

First of all, it means that accountants and politicians should stay away from even thinking about managing a utility.

Secondly, let's go back to our opening statement that so many of you raised your hands to.

The Ontario electricity generation and delivery system is an essential service that determines the wellbeing of the provincial economy and the welfare of its people.

BY DEFINITION, A SERVICE CAN NOT BE A COMMODITY. A SERVICE IS A SERVICE.

In our case, the electricity generation and delivery system is an essential service like the police, fire, and ambulance services.

With fires being the commodity because a fire is a fire. Our governments have in essence sold the fire trucks, buildings etc., and say: first one to the fire gets paid.

Then they have the accountants and politicians manage the business and evaluate the fire fighters on how they do their jobs.

I am not saying that private enterprise has no room or opportunity.

I am saying that the Sir Adam Beck model successfully lasted for about 100 years and the California model did not make it through one, yet over the last 25 – 30 years government after government is promising that they will make it work.

I say, give Toronto Hydro the price increase they seek under the condition that every penny goes to infrastructure, and not one cent to dividends. In fact, they should reinvest any thought of dividends into Toronto Hydro structure.

File: Pe181122FundFlaw2

Toronto Hydro Rate Application, for December 4, 2018 Toronto OEB, by Lynn McDonald, CM, PhD, LLD (hon), professor emerita

My concern is both about what is stated and what is omitted in the Rate Application. There is no apparent awareness that we are in a crisis, that climate change is real and happening, and that human activity is a major cause of it.

We are not merely customers of energy, but citizens, desirably responsible citizens who care about the future, the children and grandchildren of today. We must REDUCE OUR GREENHOUSE GAS EMISSIONS!

The evidence is overwhelming. The Intergovernmental Panel of Climate Change has issued warning, increasingly concerned ones.

World leaders are currently meeting at Katowice, Poland, at COP 24, reviewing progress, and its lack on reducing emissions.

Canada made a commitment at Paris in 2015, but we are not on target for meeting it.

Yet the Rate Application notes the "Growing City," without apparent concern that GHG emissions must diminish, not grow. Green growth? Smart growth?

The Rate Application notes the complications of extreme weather. Yes, and we can expect more of it with global warming.

* Priorities: As all organizations that any responsible for carbon pollution, Toronto Hydro should have a goal of reductions in GHG emissions. Note that nuclear power is not "carbon free" for there are significant emissions in the production of electricity over the whole fuel cycle to power distribution. Transparency is needed. There should be a clear goal of GHG emission reductions, and reporting on success or failure accordingly.

* At Outcome and Performance, the "Environment" is listed at the bottom, with a performance level of 2. There are meaningless notations, such as "System Reliability" with no context, "short-term reliability" in effect. With climate change, reliability will be greatly threatened.

There is an "Outcomes Framework" but GHG emission reductions should be goal, whose outcome can be ascertained.

* Connecting Renewable Generation is just another box. Yet this is crucial for reducing GHG emissions.

* Environment performance: includes two boxes, one to improve oil spills containing PCBs, the other to monitor waste diversion rate. There is far more to consider in performance: GHG emissions! Toronto Hydro should commit to a clear reduction plan.

Mark Blans

[redacted]

Re: OEB – Toronto Hydro File: EB-2018-0165

November 26th, 2018

Comments, for presentation at Public Meeting
Tuesday December 4th, 2018
Central YMCA
20 Grosvenor Street, Auditorium

Text, of comments:

Greetings ladies & gentlemen and the 'powers that be', pardon the pun!

My name is Mark. I would like to address the proposed increases through 2024, as outlined on a leaflet, in our October 2018 Hydro bills.

I feel very strongly about the issue, as it will affect everyone living on a fixed income and worse, many of us living well below the 'poverty line' for differing reasons.

I live close by in a very old building. 103 years old to be precise. There is little to no insulation in our buildings or apartments. Worse, our units are electrically heated! Something, that promised to be cheap and plentiful back in the 70's during its' last round of major renovations. That strategy may well have worked for several years but certainly places us at a huge disadvantage in today's times.

Many of you here tonight may well find yourselves living in buildings 40, 50 or 60 years old, which are not energy efficient and with very bad windows and insulation?

Even though, I've gone to extremes in being energy efficient, much further than the average person might be able to accomplish, even going into personal debit with any available rebates, including appliances in my unit. The structure that I live in, still defeats my efforts and expenses.

I live on subsidy, and my income has fallen behind the rate of inflation for many, many years now and I have no means of generating any further income. And due to government's policies, I'm certain to fall in further behind in the future!

For us, people living in conditions that we do not fully control, these increases pose a real danger to our “living” expenses. Such as food, clothing, transportation and such.

Whilst I greatly appreciate the support of the Ontario Electricity Support Program this, just like the “Cap & Trade Program” can be discontinued at any time by the current (or any) government, leaving us to trade off food, for heat or A/C in the summer months. Those lost funds and programs could have helped our Co-op replace all its’ old windows!

On average, my Hydro bill would use up 15% of my entire income! With the loss of the “Cap & Trade” program that supplied hundreds of millions of dollars to support energy efficiencies and the good risk that the Ontario Electricity Support Program may be cut by our current government, where are we to turn for support?

What is to happen, with our housing, schools, support systems, etc. Will we all be left out in the cold or to bake in extreme weather conditions? The government seems to refuse steadfastly the idea that climate change is upon us!

I, can personally tell you, that it’s happening… based on my hydro bills.! I’m not different, the climate is!

Whilst the initial discount in 2020 seems enticing, the proposed increases from 2021 through 2024 more than make up for that brief discount.

And, while I appreciate the fact that Toronto’s Hydro structure itself is old and needs some serious work in order to maintain and upgrade it, I yet again ask myself, how is it that some of the poorest of the poor are to shoulder the burden of these costs?

Of note, the increases indicated in the recent pamphlet are based on ridiculously low numbers of consumption. Hell, the “distribution charges” are in fact higher than what my actual hydro use charges are! So, already we are paying deeply, even if one does manage to cut back.

Then, I point to Toronto Hydro themselves, patting themselves on the back for doing ‘what any other company in the world should do” and I quote:

We’re getting faster at connecting new customers. And we’re exceeding industry standards for meeting scheduled appointments, answering calls on time and providing accurate bills.

What would we care about connecting new customers, we’re already connected and paying! Why weren’t they answering calls promptly and why all the messed up billings, from a multi-million dollar company, that WE own? They gone on about how they meet scheduled appointments, answering calls and worse, how good they are at getting bills correct..! They are just digging for reasons to raise rates. What about, so called

efficiencies our government constantly goes on about? Should we all use a few less squares, when we wipe to pay for the increases?

Would anyone, in this room expect anything less from any company they pay? Why do "they" think, their entitled to a pat on the back, for doing exactly what their paid to do and then deserve a big raise? Wouldn't that be nice, for your family or your kids!

Worse, as of October 30th 2018 the Progressive Conservatives have had second thoughts about posting thousands of hydro documents online. They're gone now! The documents came from Ontario Power Generation, which is in charge of power production, the Ontario Energy Board, which sets pricing, and the Independent Electricity System Operator, (IESO) which manages the province's day-to-day power needs. Just, WHY did they need to quickly retract all these thousands of pages of documents? Clearly, something is a-miss and they don't want US to know about it or, what is really going on! I cite, the Toronto Star for this information.

In fact: a stern letter from IESO President Peter Gregg expressed "significant concern" at the release! New Democrat MPP Catherine Fife, warned the release of information could result in lawsuits against the province, with financial consequences for taxpayers.

In closing, I point your attention to our government (or lack of) and that anything can happen during this time of proposed increases and it/they may well affect us all much more than anyone could anticipate at this time. I ask you all, to think seriously about this?

We, all of us 769,000 (in Toronto proper) OWN this utility, and Hydro One has been owned by us (or was), since the inception of distributed electricity. We should call the shots, not boardroom executives.

I urge everyone here to ensure that the OESP (Ontario Energy Support Program) continues and that you all respond to this proposal to ensure that everyone can enjoy the utility we own, its' properties and prosperity in the future, at a cost everyone can afford, as we own it..!

Thank-you

Mark

Members of the OEB and Toronto Hydro, thank you for the opportunity to speak today.

I have a number of comments and questions based on the Toronto Hydro submission EB-2018-0165, that I suspect you will not be able to answer immediately. It is my hope that your answers will be provided to me and the Ontario Energy Board (OEB) and that the answers will become part of the evidence considered by the OEB.

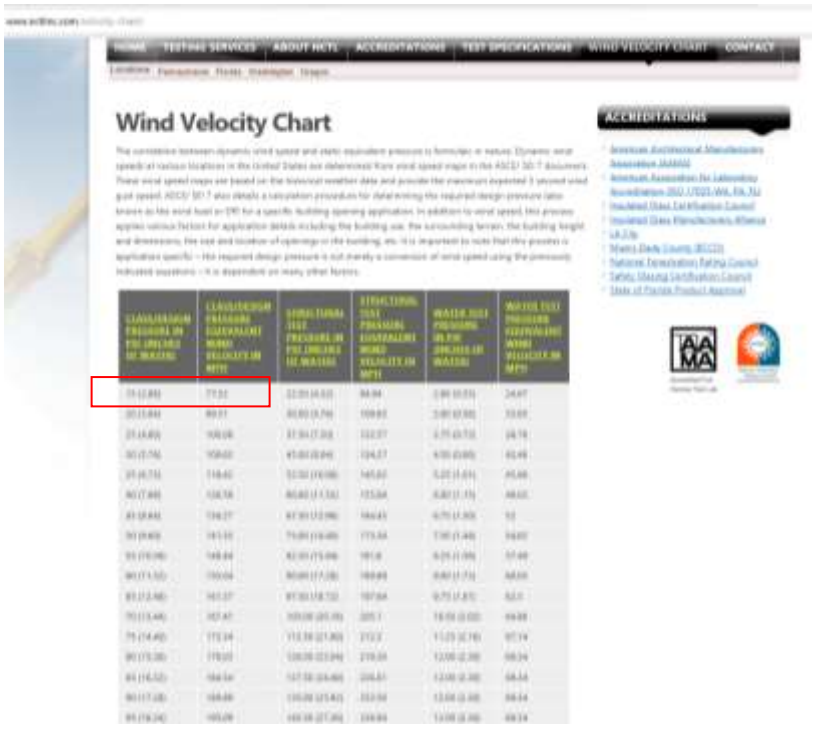
The evidence refers extensively to extreme weather conditions, high winds and ice and implies that capital spending will improve the reliability of the overhead distribution system.

Lets look at Weather Loads briefly

The evidence refers to CSA design requirements (CSA 2010) for overhead systems. (C.3.1.3 Case Specific Findings December '13 Ice Storm: Toronto, Hydro_CIR_Appl_Exhibit 2B_20180815 page 775 of the PDF file)

What are the design loads according to this standard? Are they 12.7mm of radial ice = ½ inch ice and 0.38 KPa = 8 PSF wind that translates to 124 KPH (77.5 MPH).

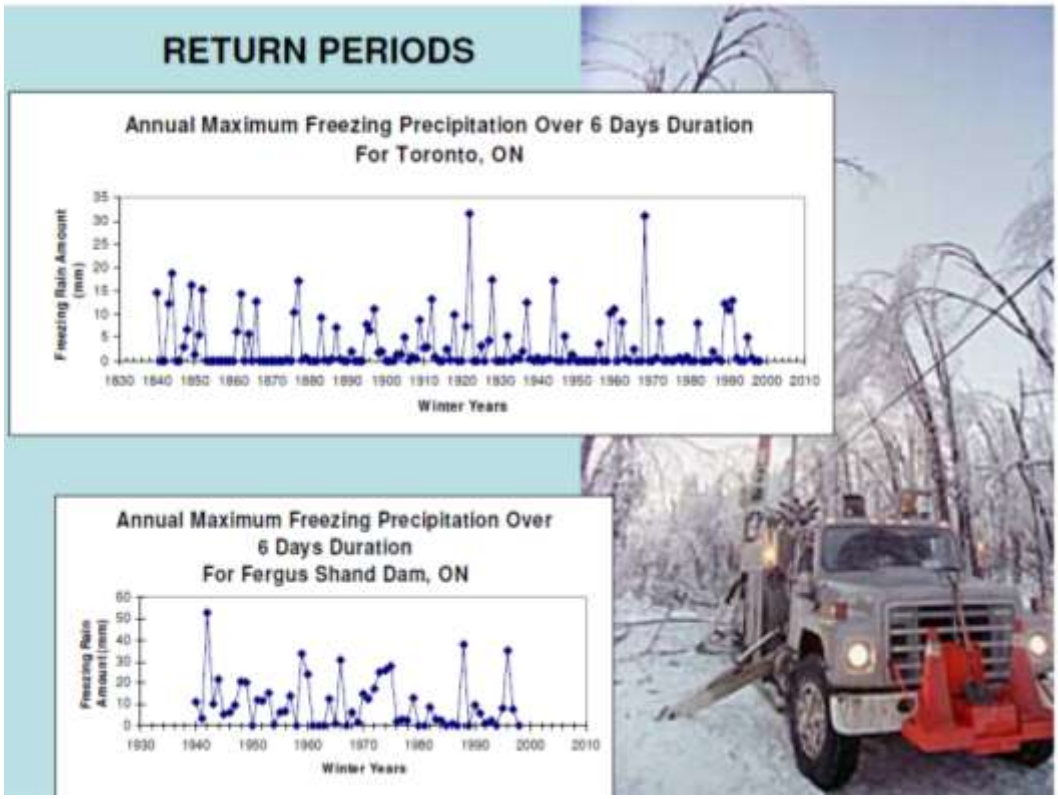
http://www.nctlinc.com/velocity-chart/



These values are calculated from the Ensewiler Formula, P = 0.00256 V^2, where V = Wind Velocity in MPH and P = the Differential Pressure across the window in Pounds per Square Foot (PSF).The equation assumes the direction of wind is perpendicular to the window and there are no effects from surrounding terrain or the shape of the building in which it is installed. Positive (+) pressures act inward and Negative (-) pressures act outward on the window.
An easier way to perform this calculation would be as follows:
Square Root of PSF X 20.016 (e.g. 15 Sq.Rt. = 3.87 X 20.016 = 77.52)

Would you please provide the actual data and dates (ice/wind from a recognized weather service) for the Toronto service ares showing that there is an increasing **frequency** of major weather events **that**

exceed the design loading (including the overload factor) of the assets of the Toronto Hydro system and the number times (including the overload factor) the CSA Standard for Pole Line Hardware and Wood pole design has been exceeded since 1840 as was done in the 2013 Ice storm report. (see http://www.iclr.org/images/2004_Nov_ICLR_Final_ICE_STORMS.pdf Page 17 for reference)?
Severe Ice Storm Risks in Ontario - Heather Auld Joan Klaassen M Geast, S Cheng, E Ros, R Lee
Meteorological Service of Canada Environment Canada-Ontario Region



Major Event Days

The evidence refers to Major Event Days or "MED" as defined by IEEE specification 1366.

a) Please provide the actual “Major Event Day (MED) Thresholds for exclusion”, dates and descriptions of the events from 2005 to 2018.
b) Please provide the expected “Major Event Day Thresholds” from 2014 to 2018(year to date - ytd) using just the 2008 to 2012 data which will provide expected performance in the future years and then compare it to the actual performance for 2014-2018 (ytd)
c) Please recalculate SAIDI and SAIFI based on “reduced days in the year” due to MED exclusions. Eg. If there were 10 MED than the “customer hours/customers served” should be factored so that it is based on 355 days and then normalized to 365 days to give a true year of year comparison.

Please show evidence as to why the events in Table 4 below are extreme events since they did not exceed the design loads with overload factor applied?

Table 4: Extreme Weather Events since the Beginning of 2017

Event	Description
Freezing Rain (February 2017)	• Approximately 2-6 mm of freezing rain followed by additional heavy rain. • Estimated 9,200 customers out at peak; all customers restored within 24 hours of the start of the freezing rain event.
High-water/flooding (May - June 2017)	• Heavy rainfall in southern Ontario exceeded the yearly average for an entire summer. • Numerous incidents of high-water/flooding reported across Toronto. • No customers were directly impacted during this 55-day incident due to the utility's proactive damage assessment and DPM mitigation measures, including flood mitigation efforts.
Wind Storm (October 2017)	• Strong wind gusts approaching 100 km/h in some areas and lasting approximately 3 hours. • Estimated 43,000 customers out at peak. • 90 percent of customers restored within 11 hours of event; all customers restored within 48 hours of the end of the event.
Wind storm (April 2018)	• Sustained 65km/h winds, with gusts approaching 90km/h. • Estimated 24,000 customers out at peak; all customers restored within 48 hours of the end of the event.
Ice Storm (April 2018)	• Approximately 10-20 mm of freezing rain, 20-25 mm rain, sustained winds of 70 km/h with gusts up to 110 km/h. • Estimated 51,000 customers out at peak. • 99 percent of customers restored within first two days of response; all impacted customers restored within 5 days of the start of the event.
Wind Storm (May 2018)	• High winds reported throughout service territory with gusts reaching approximately 120 km/h. • Estimated 68,000 customers out at peak. • 96 percent of customers restored within 48 hours of the start of the event.
Flash Storm (June 2018)	• High winds reported throughout service territory with gusts reaching approximately 90-100/h. • Estimated 16,500 customers out at peak. • 86 percent of customers restored within the first 12 hours and 97 percent of customers restored within the first 24 hours of the event.

Changing Urban Environment

Please note the change in the urban environment from some simple photos.

Blue spruce – photo taken in 1969

Blue Spruce photo taken Nov 2018

Please note that these 2 trees are on the same property separated by 49 years. This is one small example of how the urban vegetation environment has changed.

Another example is root system support failure. This tree's root system is contained on 3 of 4 sides. The lack of horizontal room for growth of the root system makes the tree vulnerable to wind and ice load above the ground so 40 years ago, this tree would have not caused an interruption or damage to the system. Today it would even though the house may have experience the same ice or wind storm 50 years apart.

The Norway Maple is another problem in the City of Toronto, it is an invasive species. According to the Toronto Star "The Norway maple is very resilient ... It gets into problems when it gets older because they have a weak structure, but they're good for the first 20 to 40 years, they grow really rapidly."

"They kind of give you that instant curb appeal, but then they kind of get more dangerous and more prone to falling down as they grow, whereas some of the native trees are a little bit slower off the get-go but then they mature into beautiful, functional trees."

https://www.thestar.com/news/gta/2018/11/07/how-torontos-ravines-have-become-critically-ill-and-how-they-can-be-saved.html

Native trees are meant to live in a forest – to support each other, with limbs and roots – they are not meant to be on their own in a confined root space – they need adequate root space horizontally in all directions to support horizontal and vertical loads on the tree.

Was the tree failure above due to high wind or the fact that the roots are contained on 3 of 4 sides?

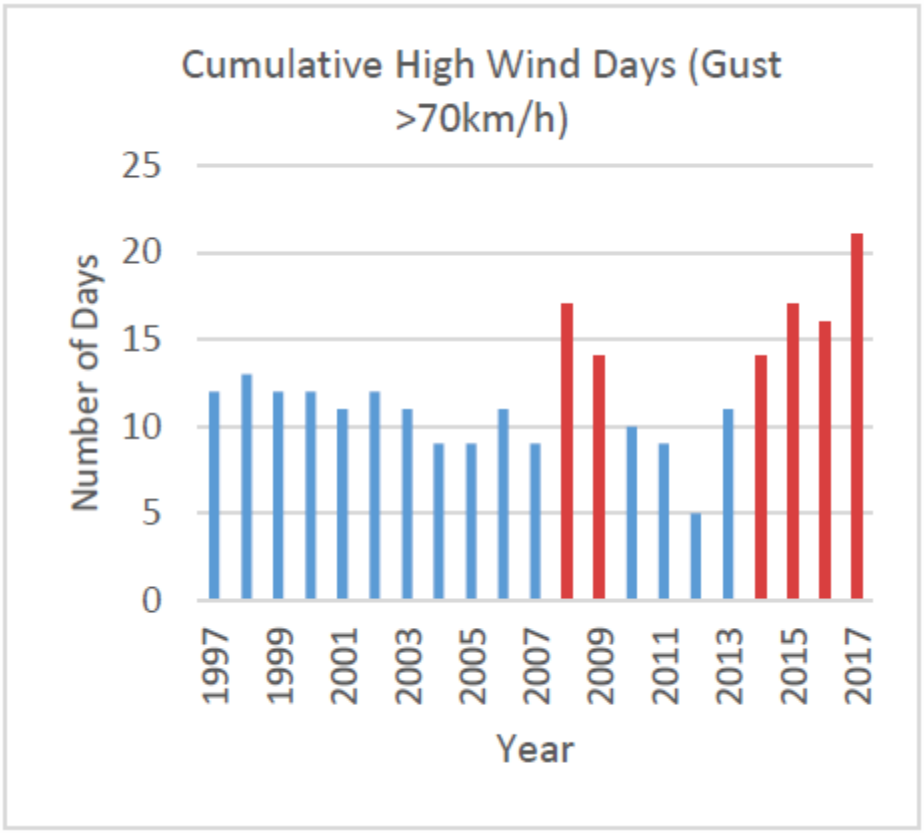
What is the restoration process? Is the feeder completely restored or are the largest interruptions restored first leaving individual transformers and customers to the end? This will impact the values of SAIDI and also MED's. Do you utilize "smart meter" data to assist in this process?

Why did Toronto Hydro choose 70 KM/hr as a wind speed threshold? The charts in the evidence imply that the poles are falling down at this speed, when in fact it is tree branches that are causing the problem. The trees have grown for 30 to 60 years since most of the system was build – does it not make sense that a tree that didn't exist in the 80's is now going to cause problems, especially the Norway Maples?

Background for 70 and 90 km/h and 15 mm ice

- The 70 km/h threshold for wind gusts, originally provided by Toronto Hydro staff during Phase I, appears to be correlated with tree damage, particularly during the warm portions of the year when deciduous trees are in full leaf, resulting in secondary impacts to the distribution system; further research is needed to confirm this relationship
- The 90 km/h threshold appears to be both related to the baseline climatic loading used in design of civil infrastructure components (see CSA 2010) as well as tree damage after deciduous trees have shed their leaves
- The lower bound of 15 mm for freezing rain totals resulting in tree contacts with overhead systems agree well with the findings from Klaassen et al. (2003)
- Freezing rain totals of less than 15 mm, however, may cause impacts when combined with high humidity environments near the 0°C boundary. This can specifically result in flashovers and other related impacts. While not as severe as direct damage to overhead lines and other equipment, these types of impacts can be numerous, widespread, and localized, presenting particular challenges for restoration efforts

According to the Beaufort Scale developed in 1805, 70 KM/hr is a "Fresh Gale" (Twigs broken from trees. Cars veer on road.) and 90 Km/hr is Whole Gale or storm (Trees are broken off or uprooted, saplings bent and deformed, poorly attached asphalt shingles and shingles in poor condition peel off roofs.). Does this mean that Fortis in Newfoundland and Nova Scotia Power lose their whole system every time an Atlantic storm blows through? Does Toronto Hydro design to CSA standards or just "blue sky days"?



Number of High Wind Days (right) in Toronto

Beaufort Wind Scale in Miles per hour (Mph), knots and Kilometers per hour (Km/h)				
Beaufort Scale Force	Wind in MPH	Wind in Knots	Wind in Km/h	Description - Wave Heights—Visible Condition
Force 0	0-1	0-1	0-1	Calm; Ht 0.0m ~ At sea no waves - glassy like appearance of sea.
Force 1	1 - 4	1 - 3	2 – 6	Light Airs Ht 0m ~ At Sea wind makes glassy ripples on water.
Force 2	4 - 7	4 - 6	7 – 11	Light breeze Ht 0.1m ~ At Sea smooth wavelets
Force 3	8 - 12	7-10	13 - 19	Gentle breeze Ht 0.4m Slight ~ At sea slight waves no white horses.
Force 4	13 - 18	11-16	20 – 30	Moderate breeze Ht 1m - Slight to moderate ~ At Sea waves described as with occasional white horses. On land raises dust and loose paper; small branches are moved
Force 5	19 - 24	17 - 21	31- 39	Fresh breeze Ht 2m Moderate ~ At sea consistent white horses
Force 6	25 - 31	22 - 27	40 – 50	Strong breeze Ht 3m Rough At Sea large waves start to form, more extensive white foam crests, some blown spray.
Force 7	32 - 38	28 - 33	51 – 61	Moderate (near) gale Ht 4m Rough to very rough. At Sea waves begin to heap up and streaks begin to appear down the waves. On land whole trees in motion; inconvenience in walking against wind
Force 8	39 - 46	34 - 40	62 – 74	Fresh gale Ht 5.5m Very rough to high At Sea waves get longer - crests break into spindrift and the streaks become more pronounced.
Force 9	47 - 54	41 - 47	75 – 88	Strong or severe gale Ht 7m High At Sea high waves and dense streaks of foam may begin to affect visibility. On land slight structural damage occurs; chimney pots and slates removed
Force 10	55 - 63	48 - 55	89 - 102	Whole gale or Storm - Ht 9m Very High At Sea very high waves with overhanging crests, lots of spray makes the sea almost white, visibility seriously affected.
Force 11	64 - 72	56 - 63	103 – 117	Violent Storm Ht 11m Very High At Sea exceptionally high waves and a complete coverage of long white foam patches. All crests blown into froth.
12	73+	64 +	118 +	Hurricane Ht 14m plus Phenomenal At sea the air is completely filled with driving spray, visibility extremely difficult. On land devastation occurs.

Vegetation

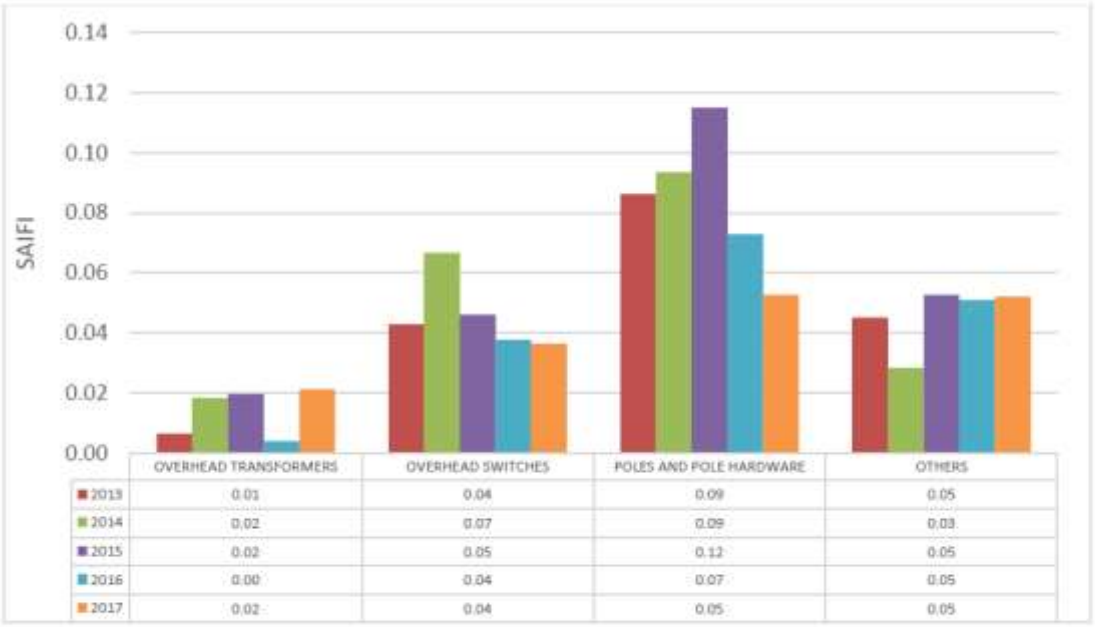
How up to date is the vegetation clearing in Toronto? The interruption problems appear to have been with trees. Trees that are mature and not growing upward as in a forest, but outward across lawns and roads as in an urban environment or with contained root balls between sidewalks, curbs and driveways which fail without proper vegetation management. How is Toronto Hydro planning to manage the vegetation assets in an effective manner given that the money that was awarded in 2014 does not appear to have dramatically improved the performance of the distribution system as illustrated by this rate application.

What is Toronto Hydro doing to get the City of Toronto to not plant trees on city property so they will grow into the wires?

Defective equipment

Does defective equipment mean the switch did not operate as it should have, or does it mean that the switch operated due to a root cause of say tree a branch falling on the conductor?

Does defective Pole and Pole hardware mean that the pole broke due to a structural load causing failure, or does it mean it broke because say a tree fell on the conductor and broke the pole?



	OVERHEAD TRANSFORMERS	OVERHEAD SWITCHES	POLES AND POLE HARDWARE	OTHERS
2013	0.01	0.04	0.09	0.05
2014	0.02	0.07	0.09	0.03
2015	0.02	0.05	0.12	0.05
2016	0.00	0.04	0.07	0.05
2017	0.02	0.04	0.05	0.05

Figure 21: Defective Equipment SAIFI – Overhead

What is the relationship with failed components and their age? In terms of forced interruptions what are the failure rates by age category?

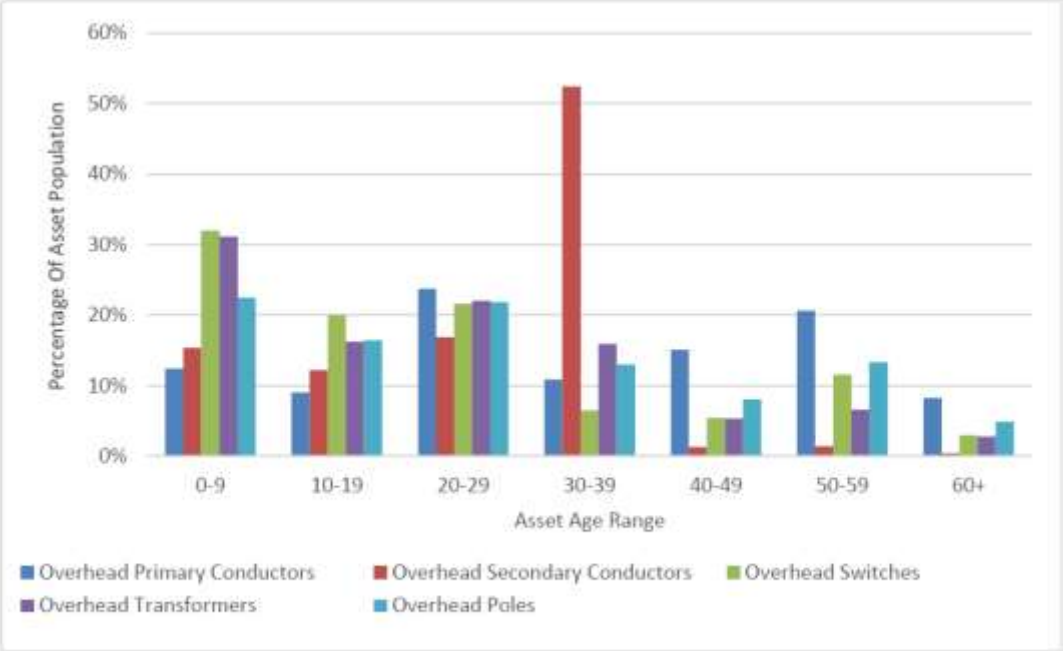


Figure 9: Overhead Assets Age Demographics as of 2017

Why is MAIFI not increasing given that Toronto Hydro should have more SCADA coverage since the previous rate filing?

See EB-2014-0116 Exhibit 1A Tab 2 Schedule 1 Page 13 line 23 footnote 4

These plans and programs include emergency response, enhanced emergency
22 preparedness, vegetation management, climate change adaptation studies, and key
infrastructural renewal and system service programs.4

4 These programs include Overhead Infrastructure Relocation, Rear Lot Conversation, Box Construction Conversion, Feeder Automation, Contingency Enhancement, Downtown Contingency and Design Enhancement.

How has feeder automation prevented large scale interruptions of the feeders where a branch falls on the line and the interruption is captured by the protective device at the station, not near the location of the falling tree or branch?

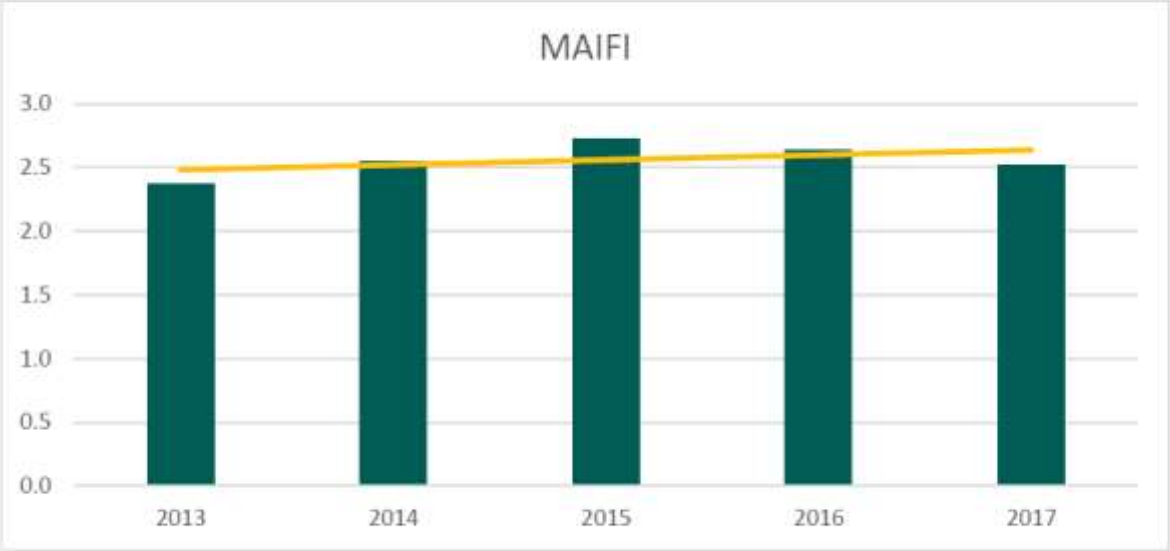


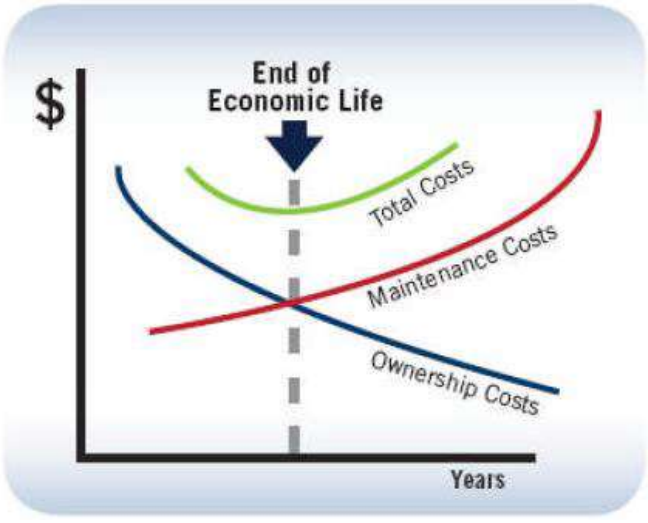
Figure 2: MAIFI Performance from 2013-2017

Asset Condition and Replacement

What are the criteria for Asset Condition Assessment ("ACA")?

What is the definition of "useful life"? Economic or physical, eg. Are you replacing assets because the book value is zero?

This is a very interesting graph that is in most asset management books. What are the **actual dollar curves for wood poles and conductor on the Toronto Hydro System,** since as stated in the evidence the maintenance that is done is mostly vegetation management which is not dependent on the age of the asset?



Why is Toronto Hydro not replacing assets "like for like"? In my subdivision the assets were replaced in the fall of 2013 with 10 foot higher poles and larger conductor even though there was no visible deterioration. The proof being that both assets withstood the 2013 ice storm with out damage and the interrupted switches were at the station feeder switch.

Fuse coordination

How many interruptions occur at the station feeder switches? On average how many customers were impacted by interruptions at the station feeder switch? Where did the actual faults occur on the feeder? Were the fuses coordinated properly, so the interruption did not go back to the station feeder switch?

Does this information imply failure of the fused switches to capture the interruptions further downstream of the stations?

Please provide a list of feeders showing the names and dates when the last fuse co-ordination studies were performed and implemented to ensure the interruptions are captured at the switch directly upstream of the fault?

Meters

What was the replacement interval for mechanical meters used before the Smart Meter program? What is being done to ensure that Smart Meters have the same life span?

E5.4.3.2 Failure Risk

11 Toronto Hydro was among one of the first utilities to implement Smart Meters in support of
12 provincial policy objectives, installing the bulk of its residential and small commercial meters
13 between 2006 and 2008. Given Toronto Hydro's status as an early adopter provincially and globally,
14 there is an absence of empirical data from other utilities and jurisdictions of meter failure rates in
15 relation to asset lifespan. However, in an Asset Depreciation Study undertaken by Kinetrics for the
16 OEB (the "Kinetrics Report"), the expected lifespan of **a typical smart meter was determined to be 5-**
17 15 years, which is consistent with Toronto Hydro's internal observed lifespans of other electronic
18 based operational technology assets.5 Beginning in 2021, Toronto Hydro's meters will surpass this
19 15 year lifespan, thereby increasing the probability of failure beyond standard operating levels.

By 2025,

23 approximately 90 percent of Toronto Hydro's residential and small commercial meters will surpass
24 their useful life. This will negatively affect Toronto Hydro's ability to accurately bill its customers
25 (which is tied to the OEB's billing accuracy performance standards) as failed meters result in
26 estimated billing.

Residential Service Charge

What was the Residential Service Charge from 2005 to 2018? This was shown as a separate line item and is now buried in the bill so customers do not see it. Why should an additional "fixed rate" be imposed on the rate payers of Toronto because they have conserved energy?

Summary

- Design loads have not been exceeded
- Aging/Weakening urban vegetation is a major problem
- Are interruptions being captured in the correct locations by the protective devices?
- Large capital replacement programs are not the solution.

Would the OEB and Toronto Hydro agree that the Ice Storm of 2013 was one of the worst storms to hit the city in recent years?

Would also you agree that any similar storms from say 1960 would not have the same impact of the city then as now because the main reason for the interruptions is not equipment failure, but the failure of the urban forest in Toronto?

So maybe Toronto Hydro should be exploring ways to minimize tree damage due to the aging/weakening urban vegetation instead of replacing poles and conductor that do not need to be replaced.

> While ice accretion values likely approached or even slightly exceeded minimum CSA design requirements (CSA 2010) for overhead systems for small portions of the city of Toronto, Durham Region, and other areas, it appears that the vast majority of damage inflicted on overhead distribution lines during the ice storm was due to the impacts from falling tree limbs. Immediately following the ice storm, tree damage was indicated as "worse than originally anticipated" (TH Press Release, Dec 23, 2014, 3 PM)
>
> There are a large number of photos of large trees on the conductor/ground in the submission. Toronto Hydro's solution appears to be "replace" capital. This will not prevent these types of interruptions. The urban vegetation is 50 years older than what it was in the 1960's, trees have grown and trees are going to fail. The storms are still not exceeding the design criteria of 124 km/hr or 13 mm of radial ice.

What is Toronto Hydro going to do to address the root cause of failures other than communication and after the fact restoration? Is Toronto Hydro going to do fuse coordinations to isolate the interruptions where the trees fall? The philosophical question is answered; if a tree falls in the city does it make a sound? The answer, no but it causes a large interruption at the supply station feeder switch instead of being captured at the location of the fall.

Additional questions during the Q and A session

On the slide showing the customer bill, how much of the customer bill is dividend from Toronto Hydro to the share holder? (percent and actual dollars)

How is the dividend calculated? Or to put another way, what is it based on?

ONTARIO ENERGY BOARD | COMMISSION DE L'ÉNERGIE DE L'ONTARIO

COMMUNITY MEETING CUSTOMER PRESENTATION

Thank you for attending the Ontario Energy Board's (OEB) Community Meeting.
Your presentation is intended explain to the OEB how you are impacted by your utility's requested changes. In particular, please tell us what you support (what you like) and what your concerns are (what you do not like) about your utility's application to the OEB. You can also raise questions you would like addressed.
Oral presentations are limited to 5 minutes.

By signing and submitting this document to the OEB, you agree to have your name, your comments and any documents you provide made public on the OEB's website and shared as part of the public record in the case (case number entered by you below). Any personal contact information (such as your telephone number, home address and email address) **WILL NOT** be made public on the OEB's website or otherwise shared with any person outside of the OEB.

Meeting Date: November 22, 2018 City: North York

Utility Name: Toronto Hydro EB#:

First and last name: Sharolyn Mathieu Vettese

Mailing address: [redacted]

Email address: [redacted]

Phone number: [redacted]

I am a: Residential customer [x] Business customer [ ] Both [ ]

If you are submitting a comment on behalf of a business, any business contact information **WILL** be made public on this website and shared as part of the public record of the case named below.

Topic from rate application
Proposed decrease then subsequent increases in delivery rates -- I do not support increases

Your comments/questions
I do not support the increased residential residential rates in 2021 onward. I support the rate decrease in 2020, but not the increases. There are several reasons.
1) The delivery charge currently includes outdated charges like smart meters that are years old, as well post employment benefits, and a related costs to global adjustment (nuclear), which is already included in the electricity rate. I think Toronto Hydro has to look at more ways to do things better that are more efficient, and this won't get done if blanket increases are put through and improvements are not made. I know that Michael Hayes has done a lot, but much more needs to be done to modernize and improve the system.

Also, I think it is misleading to have a significant reduction in the first year so that it looks good, and then subsequent increases so that you're virtually back where you were. Also, no reasons were given for the increases. Looks like a carte blanche.

Again, I do not support the increases.

Topic from rate application
Your comments/questions

Topic from rate application
Your comments/questions

Signature

November 15, 2018

Date