Halton Hills Hydro

2016 Cost of Service Rate Application

Halton Hills HYDRO

We are Community

Providing Halton Hills with electricity distribution excellence in a safe and reliable manner.

Agenda

- About Halton Hills Hydro
- Customer Engagement
- Distribution System Plan Overview
- Major Capital Projects
- Operations, Maintenance & Administration
- Bill Impacts

Mission Statement

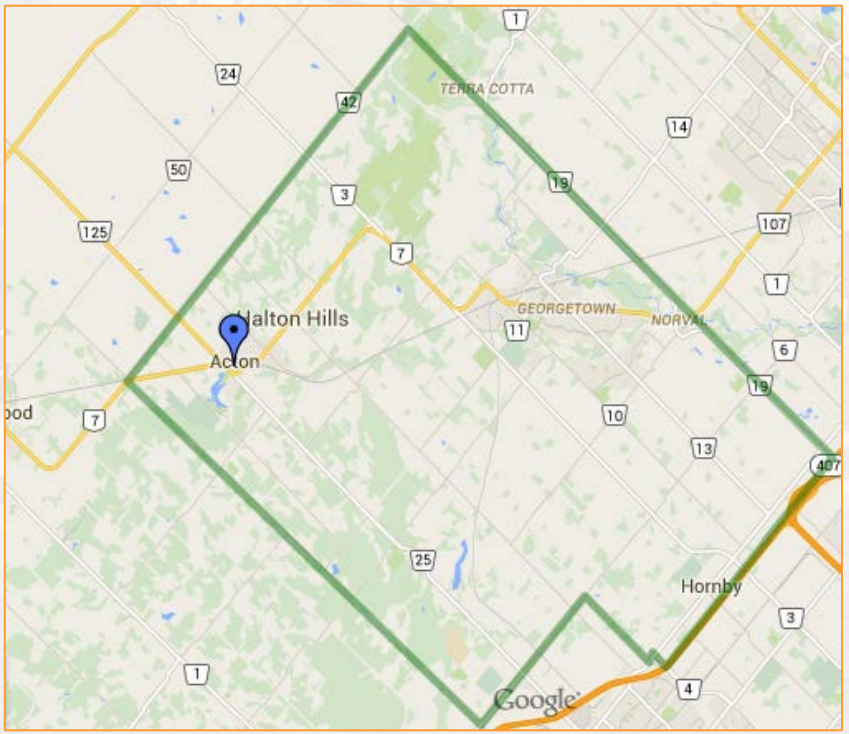
"To provide Halton Hills with electricity distribution excellence in a safe and reliable manner."

Corporate Objectives

- Safety
- Reliability
- Competitive Rates
- Financial Metrics
- Conservation
- Environmental
- Community Focused
- Smart Grid Implementation

About Halton Hills Hydro

- Total Customers: 22,000
- Service Area: 280 SQ KM
- Hydro Lines: 1,527 km
  - Overhead: 890 km
  - Underground: 637 km
- Hydro Poles: 8,780
- Transformers: 3,842
- Municipal Population: 59,100
- Employees: 52



Performance Excellence

2013 EDA LDC Performance Excellence Award

- Occupational Health & Safety
- Operational Excellence
- Financial Operations
- Retail Strategies for Conservation & Demand Management
- Contribution to Community

OEB Utility Benchmarking report

- Measuring distributors cost efficiency & productivity
- Halton Hills Hydro continues to rank in the top grouping for cost efficiency
- One of only 6 LDCs in Group I
- *Total costs 25% or more below predicted levels*

OEB 2015 Efficiency Rankings

More Efficient ← → Less Efficient

Group I	Group II	Group III	Group IV	Group V
E.L.K. Energy Inc.	Cooperative Hydro Embrun Inc.	Bluewater Power Distribution	Niagara Peninsula Energy Inc.	Atikokan Hydro Inc.	Algoma Power Inc.
Halton Hills Hydro Inc.	Enersource Hydro Mississauga Inc.	Brantford Power Inc.	Niagara-On-The-Lake Hydro Inc.	Canadian Niagara Power Inc.	Hydro One Networks Inc.
Hearst Power Distribution	Entegrus Powerlines	Brant County Power Inc.	Norfolk Power Distribution Inc.	Chapleau Public Utilities	Toronto Hydro-Electric System
Hydro Hawkesbury Inc.	Espanola Regional Hydro	Burlington Hydro Inc.	North Bay Hydro Distribution	Enwin Utilities Ltd.	West Coast Huron Energy Inc.
Northern Ontario Wires Inc.	Essex Powerlines Corporation	Cambridge And North Dumfries	Orangeville Hydro Limited	Festival Hydro Inc.	Woodstock Hydro Services Inc.
Wasaga Distribution Inc.	Grimsby Power Incorporated	Centre Wellington Hydro Ltd.	Orillia Power Distribution	Greater Sudbury Hydro Inc.	
	Haldimand County Hydro Inc.	Collus Power Corporation	Ottawa River Power Corporation	Midland Power Utility	
	Kitchener	Erie Thames Powerlines	Powerstream Inc.	Oakville Hydro Electricity	
	Lakefront Utilities Inc.	Fort Frances Power Corporation	Rideau St. Lawrence Distribution	Peterborough Distribution	
	London Hydro Inc.	Guelph Hydro Electric Systems	Sioux Lookout Hydro Inc.	PUC Distribution Inc.	
	Milton Hydro Distribution Inc.	Horizon Utilities Corporation	St. Thomas Energy Inc.	Renfrew Hydro Inc.	
	Newmarket	Hydro 2000 Inc.	Thunder Bay Hydro Electricity	Tillsonburg Hydro Inc.	
	Oshawa PUC Networks Inc.	Hydro One Brampton Networks	Veridian Connections Inc.	Wellington North Power	
	Welland Hydro-Electric System	Hydro Ottawa Limited	Waterloo North Hydro Inc.		
		Innisfil Hydro Distribution	Westario Power Inc.		
		Kenora Hydro Electric Corporation	Whitby Hydro Electric Corporation		
		Kingston Hydro Corporation	Lakeland Power Distribution Ltd.		

Source: Pacific Economics group Research, LLC (PEG)

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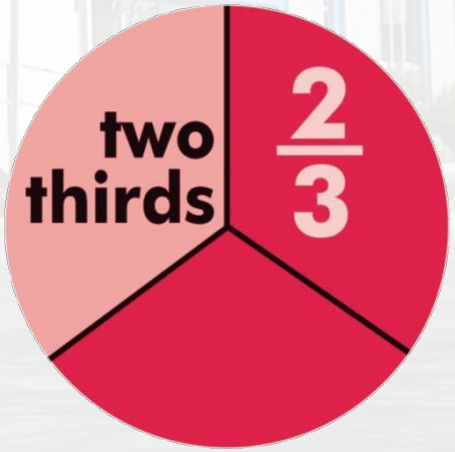
Customer Engagement

Providing Halton Hills with electricity distribution excellence in a safe and reliable manner.

Customer Engagement in Rate Setting

- Telephone Survey of 426 Customers
- Online Survey of 930 Customers
- In Person Residential and Commercial Focus Groups

"… of ALL respondents are willing to pay more per month to replace aging equipment to improve safety and reliability…"



"… about 2/3 of respondents believe LDCs should be pro-actively replacing equipment…"

Community Outreach 2015

- Participation in over 20 community events
- Glen Williams tree trimming public information session - January
- Community Open House - June
- Halton Hills Hydro has over 4500 followers on Facebook and Twitter

2014 Customer Satisfaction Survey

Halton Hills Hydro UtilityPULSE Report Card®	
Price and Value	B
Customer Service	A
Company Leadership	A
Corporate Stewardship	A
Operational Effectiveness	A
Power Quality and Reliability	A
OVERALL	A

How you rated us in our 2014 Customer Satisfaction Survey	
Provides consistent, reliable electricity	89%
Quickly handles outages and restores power	82%
Makes electricity a top priority for employees and contractors	88%
Is a trusted and trustworthy company	86%
Overall the utility provides excellent quality services	85%

Halton Hills Hydro Charges represent 22% of total electricity charges

Sample Residential Electricity Bill

YOUR INVOICE SUMMARY

Description	Consumption	Amount
Your Electricity Charges		
Summer OFF - Peak @ 8.0¢	940.69	75.26
Summer MID - Peak @ 12.2¢	257.01	31.36
Summer ON - Peak @ 16.1¢	263.29	42.39
Delivery		88.07
Regulatory Charges		8.81
Debt Retirement Charge	1,460.99	10.23
Total Electricity Charges		$256.12
HST # 86742 9623 RT		33.30
Subtotal		$289.42
Ontario Clean Energy Benefit -10%[1]		28.95CR
Total Electricity		**$260.47**

HHH: $57.71

Hydro One/IESO: $19.79

Losses: $10.57

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Distribution System Plan

Providing Halton Hills with electricity distribution excellence in a safe and reliable manner.

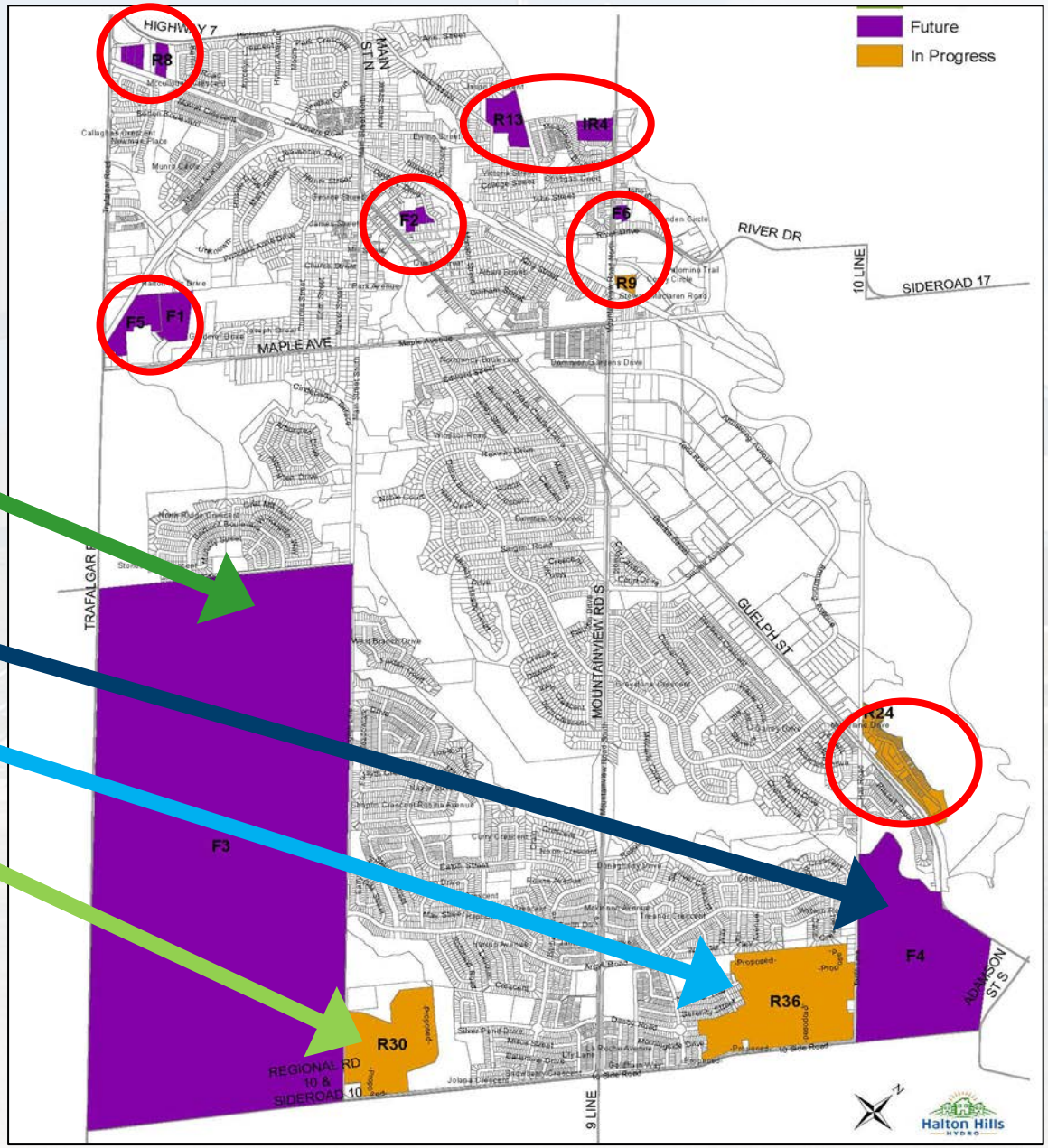
Guiding Principles for our Distribution System Plan

- Safety for our crews and the public
- System reliability
- Customer feedback
- Value proposition
  - Finding efficiencies
  - Pacing and prioritization of expenditures
- Modernizing our electricity system
  - Smart grid, automation, outage management

Load Growth in Halton Hills

Georgetown

- Vision Georgetown - up to 7,000 residential lots, 7 schools, mixed commercial
- 300-400 homes
- 747 homes
- 273 homes
- Several other projects totalling 700+ homes



Load Growth in Halton Hills

Acton

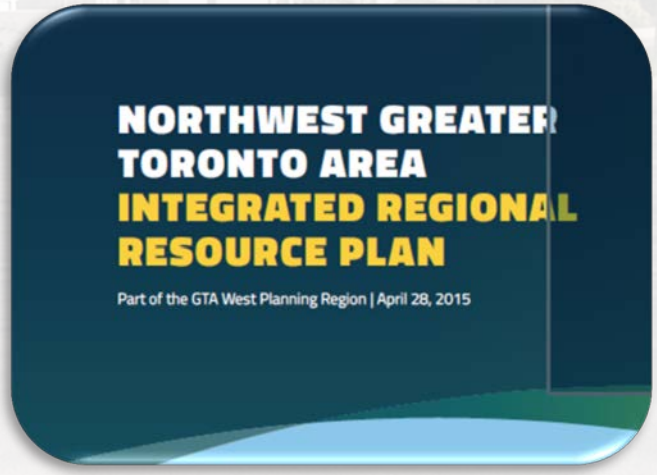
- 23 homes
- 118 homes
- 6 homes
- 16 homes

Rural

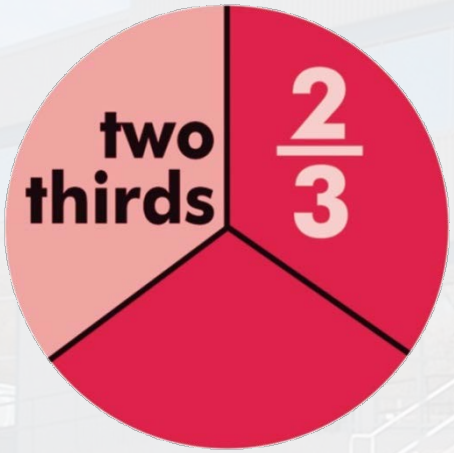
187 homes planned in projects throughout rural Halton Hills

IESO Regional Planning Process

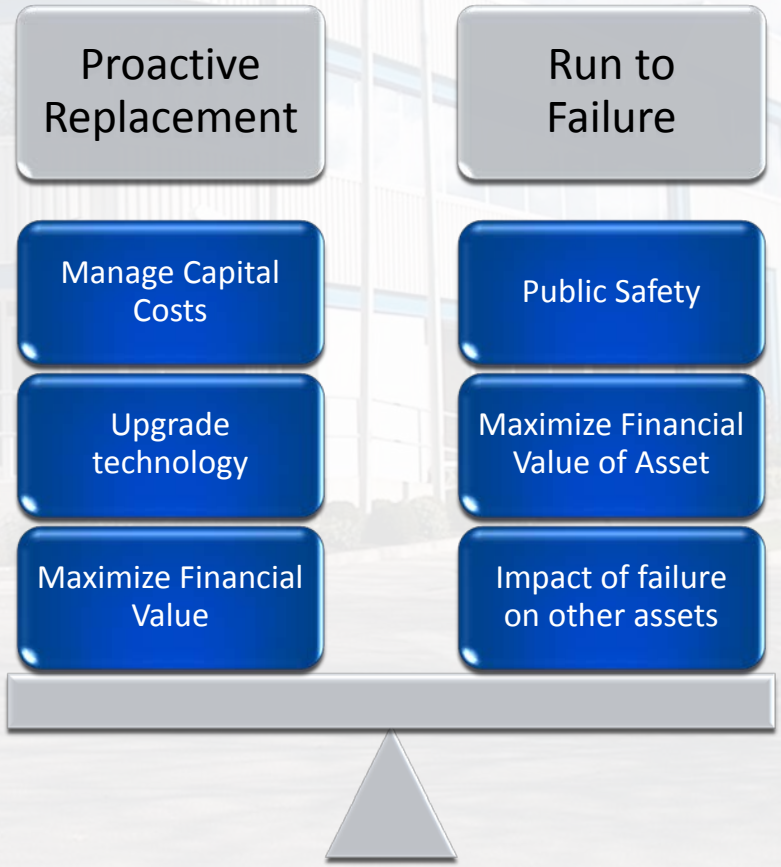
- IESO Northwest GTA Integrated Regional Resource Plan
- Identifies need for Halton Hills Hydro to construct a Municipal Transformer Station to meet near term load requirements
- Many of the projects in this plan are required to enable supply from the new transformer station



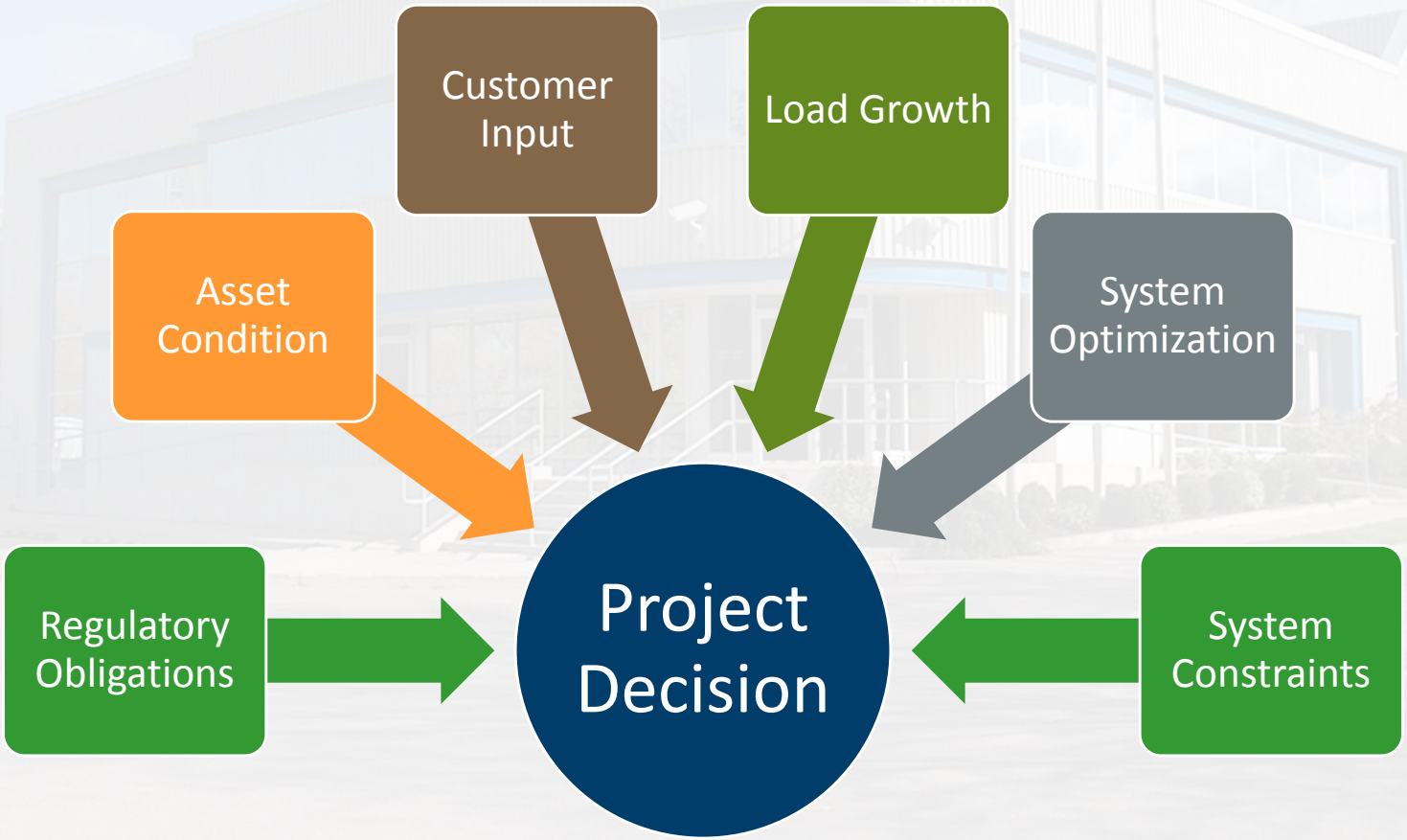
Planning & Prioritizing



2/3 of respondents believe LDCs should be pro-actively replacing equipment rather than allowing assets to run to failure



How we prioritize our projects



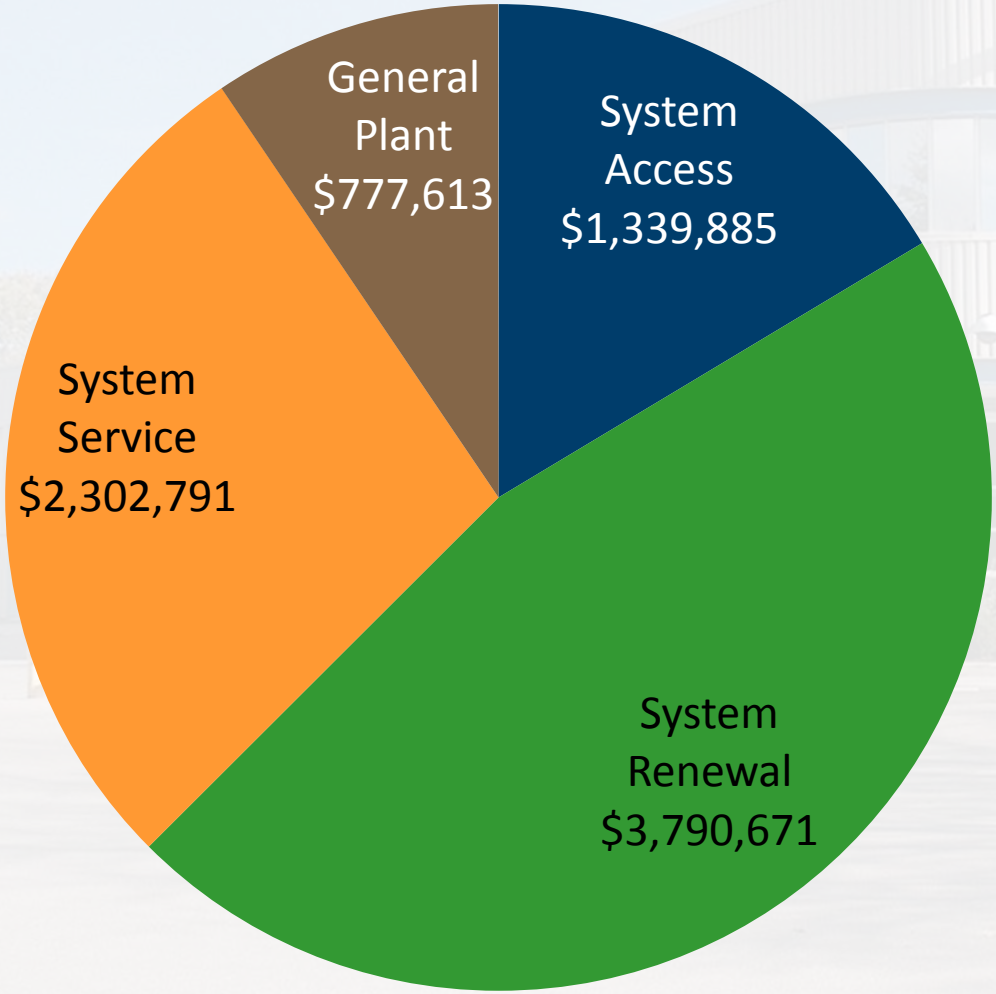
5 Year Expenditure Plan

5 Year Capital Expenditures	
2016	$8,210,960
2017	$6,851,919
2018	$8,364,511
2019	$9,468,640
2020	$7,952,003
	$40,848,033

What our Customers told us.

- Replace aging equipment to improve safety and reliability (71% of respondents)
  - 41% of our 2016 budget is for System Renewal projects
- Adding automation and technology to reduce outage time (51% of respondents)
  - 26% of our 2016 budget is for System Service projects

2016 Capital Projects - Total Budget: $8,210,960



System Renewal

- Pole replacements, aging equipment replacements

System Service

- Automation, Line Extensions, Voltage Conversions

System Access

- Customer connections, road work

General Plant

- Building, software, trucks, tools & equipment

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- $3,790,671
- Refurbishment or Replacement of end of life assets

System Renewal

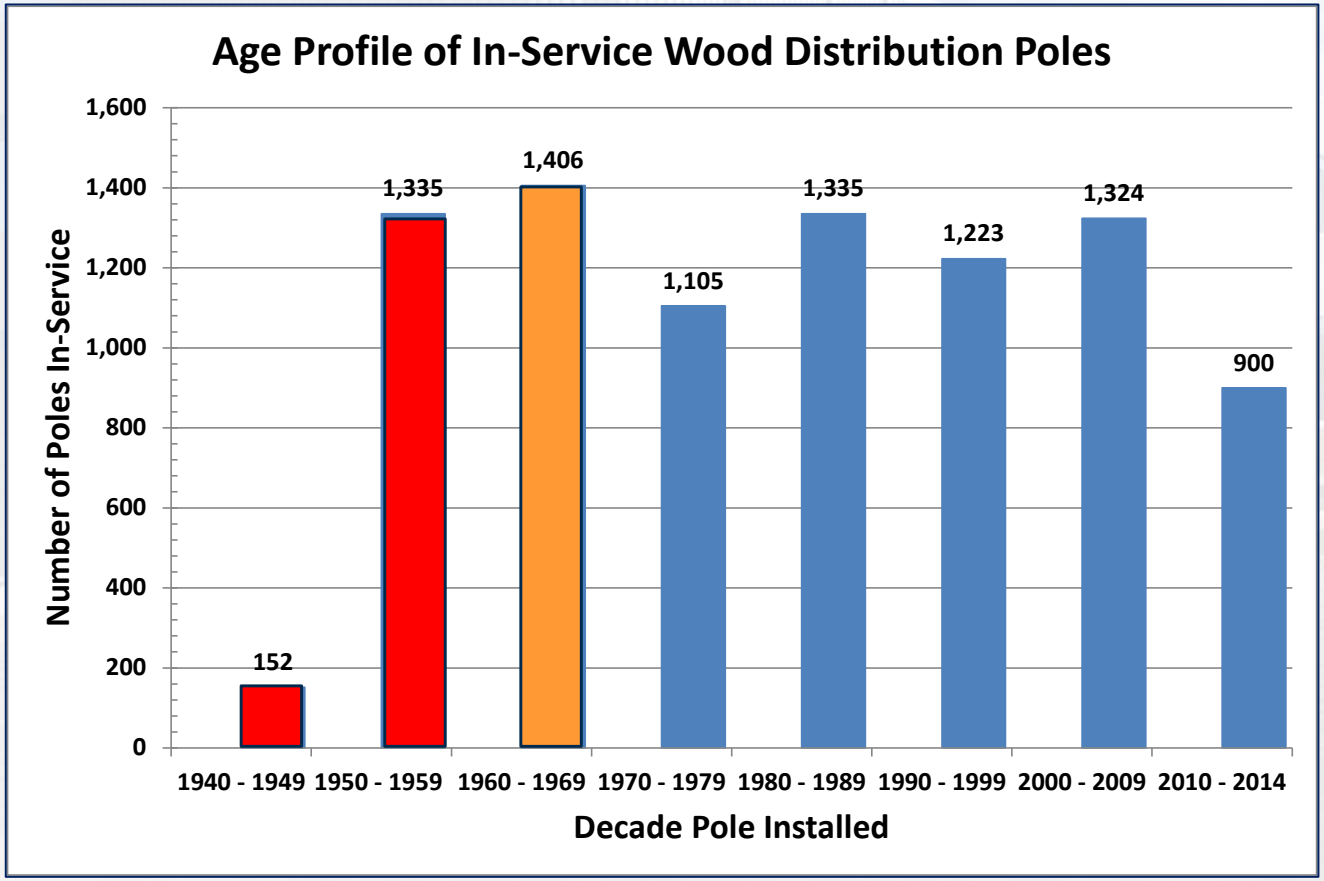
History of Halton Hills Hydro Infrastructure

- Halton Hills Hydro-Electric Commission formed in 1980
  - Amalgamation of Georgetown Hydro Electric Commission and Acton Hydro Electric Commission
  - Purchase of Hydro One owned assets serving Esquesing Township
- Aging Infrastructure
  - Many of the assets acquired by the new Halton Hills Hydro were already aging in 1980

Age of Poles

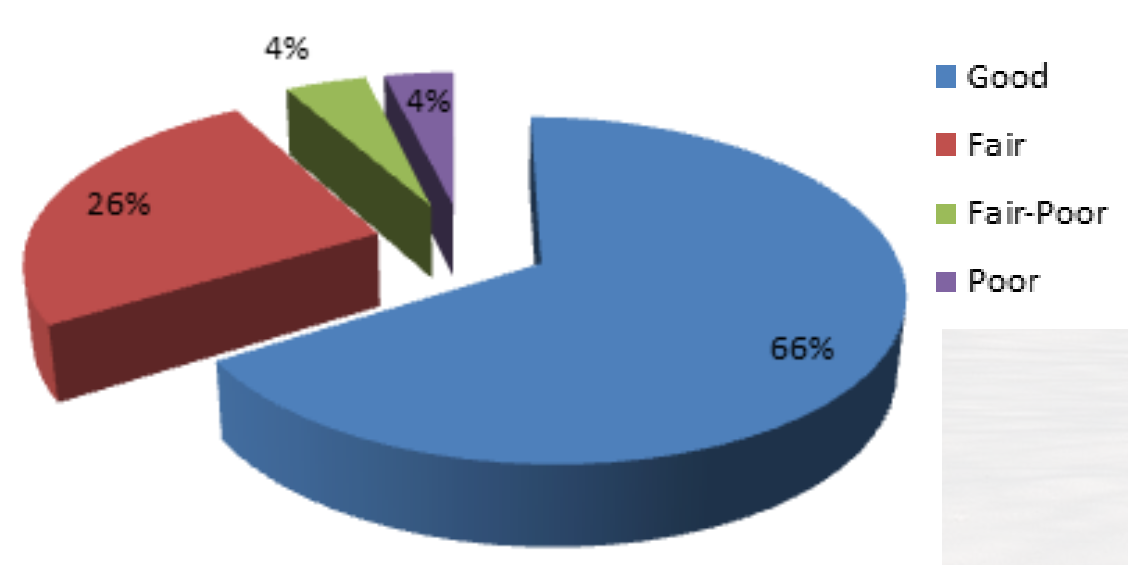
Expected Pole Lifespan: 50 years

- 1400 poles older than 1960
- Another 1400 poles older than 1970



Pole Condition

Condition	Percent	Poles
Poor	4%	351
Fair-Poor	4%	351
Fair	26%	2283
Good	66%	5799
Total		8780



Pole Replacement Factors

- Age and Condition of Pole
- Proximity to public spaces
- Highest voltage on pole
- Impact on System Reliability
- Other Factors and Opportunities

Pole Replacement Project: $2,000,000

Project: 275 poles replaced /year

- Leaving these poles in place can:
  - Pose a risk to public safety
  - Can lead to a cascading effect where a falling pole takes down adjacent poles as well
  - Increase unplanned outages and restoration times

Poletrans Transformer Replacements: $538,000

- Obsolete equipment – can only be replaced with padmounted transformers
- If a unit fails, power restoration could be lengthy
- Equipment is difficult to work with and can pose a safety concern for crews
- Needs to be a proactive replacement re safety risk and obsolete equipment

Cross Substation Switchgear: $714,000

- Replacement of 40 year old switchgear at Cross Substation
- Obsolete equipment cannot be readily replaced in an unplanned outage
- Lengthy manufacturer lead times
- Replacement will reduce operating costs

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- $2,302,791
- Line upgrades or extensions
- Automation
- Safety, reliability & efficiency improvements

System Service

Trafalgar Rd 27.6 kV Extension: $671,000

- Extending 27.6kV system to support growth
- Over 170 townhomes planned in the expansion area, plus additional development anticipated
- Construction needs to begin at least 1 year in advance of developer needing site power

Voltage Conversions – 5 SideRoad: $408,000

- Converting older 8.32kV system to 27.6kV
- Improve system reliability
- Prepare for future growth – Ontario's Places to Grow (Vision Georgetown)
- Finding efficiencies – replacing aging equipment acquired in 1980 while preparing for future growth

Feeder Reinforcement – Delrex Blvd: $346,000

- Existing system is over 50 years old
  - Built when homes had smaller service sizes
- Replacing end of life poles and installing larger diameter wires able to carry increased power flows
- Support in-fill load growth

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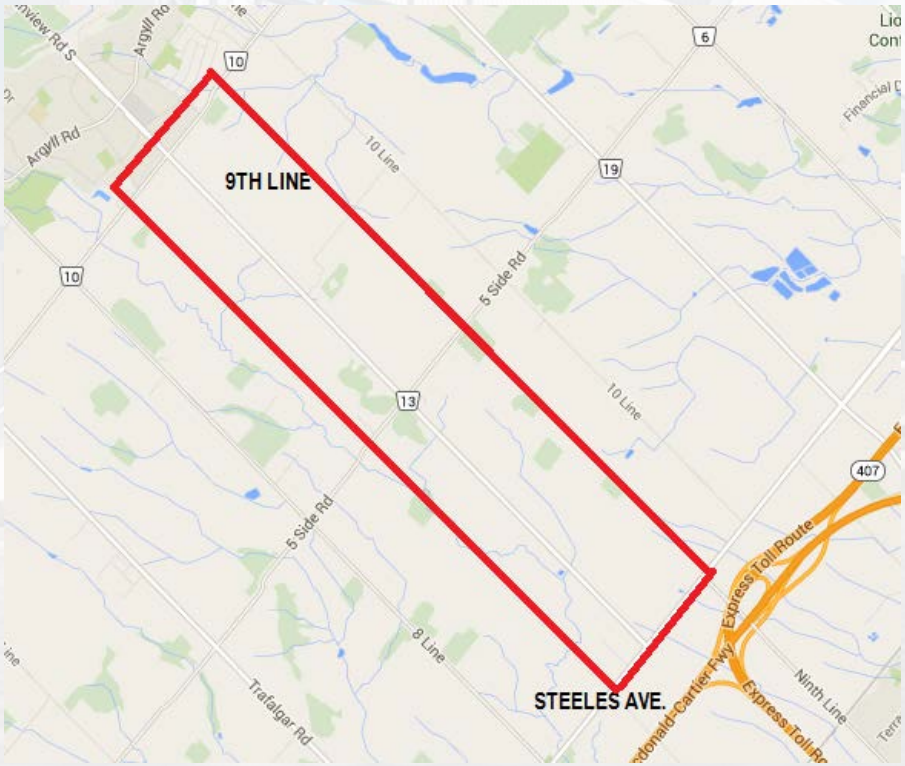
- $1,339,885
- Renewable Generation Connections
- Municipally driven projects
- New Subdivisions

System Access

9th Line – Steeles to 10 Sideroad: $831,245

Project: Region road improvement project

- Required by Public Service Works on Highways Act to accommodate
- Dependent upon Region acquiring land and easements
- Project could be delayed by months or years – dependent upon Region timing



- $777,613
- Land and building maintenance
- Computer Systems
- Vehicles, equipment & tools

General Plant

Building & Property Upgrades: $200,000

Resurfacing of Garage Roof

- Current roof last resurfaced in 1990
- Pacing of expenditures:
  - Office roof resurfaced in 2015
  - Garage area to be resurfaced in 2016
- Risk of non completion: Damage to equipment and materials stored in garage if roof leaks
  - Office roof was beginning to leak prior to resurfacing

Parking Lot Paving

- Current surface has extensive frost heaving, pooling of water in heavy rain
- Safety for employees and customers

Computer System Upgrades: $175,000

- Interactive Voice Response
  - Improved customer experience
  - Expanded ways to meet customers needs
  - Improved customer self-service options to 24/7
- Server hardware upgrades
  - Reduce risk of hardware failure
  - Reduce risk of Customer Information System downtime which may directly impact our ability to bill customers on a timely basis
  - Reduce maintenance costs

Vehicles: $145,000

- 12 year replacement strategy for line trucks
- Pacing of expenditures:
  - 2016 purchase new chassis for digger derrick, 2017 purchase new boom & body
- Affects safety for crew
- Affects reliability for customers

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Operations, Maintenance & Administration

Providing Halton Hills with electricity distribution excellence in a safe and reliable manner.

Finding Efficiencies

- Control Room
  - Partnership with Oakville Hydro
  - 24/7 system monitoring
  - Improved response to outages
  - Improved worker safety
- Safety Program
  - Innovative safety program partnership with safety partner and neighbouring utilities
  - Enhanced safety awareness and compliance
- New Enterprise Reporting System
  - Enhanced reporting and financial analysis capabilities
  - Robust job estimating package improves engineering department productivity

What our Customers Told Us

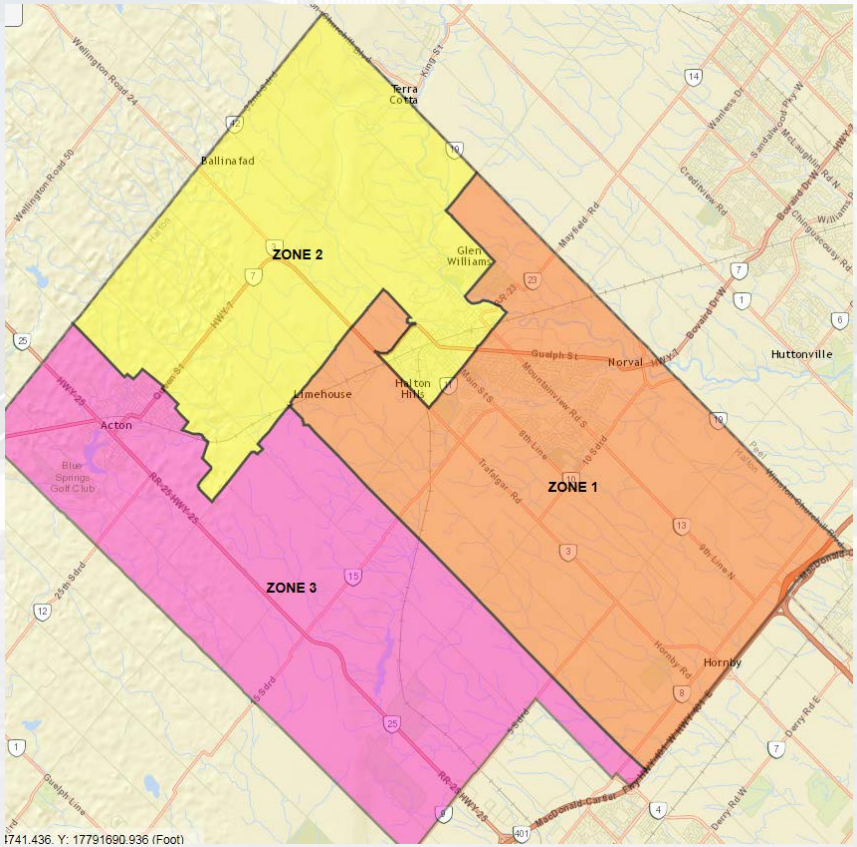
Which Operational Items are you willing to pay more for?			
	Surveys & Focus Groups Summary	Business Focus Group	Residential Focus Group
Increased tree-trimming to improve reliability	53%	86%	40%
Proactive outage management communication system	44%	86%	40%
Educating customers about energy conservation	26%	43%	20%
Educating customers about electricity safety	18%	43%	20%
Increased website self-service options	24%	29%	30%
Extended office hours	6%	0%	0%
Source: UtilityPulse 2015 Halton Hills Hydro Customer Engagement Survey			

Tree Trimming

- Safety
- We are mandated by the Canadian Electrical Code to maintain minimum clearances from our power lines
- Minimum clearance of 3m from primary lines and 1m from secondary lines
- Reliability
- Remove tree branches that could contact lines and cause outages

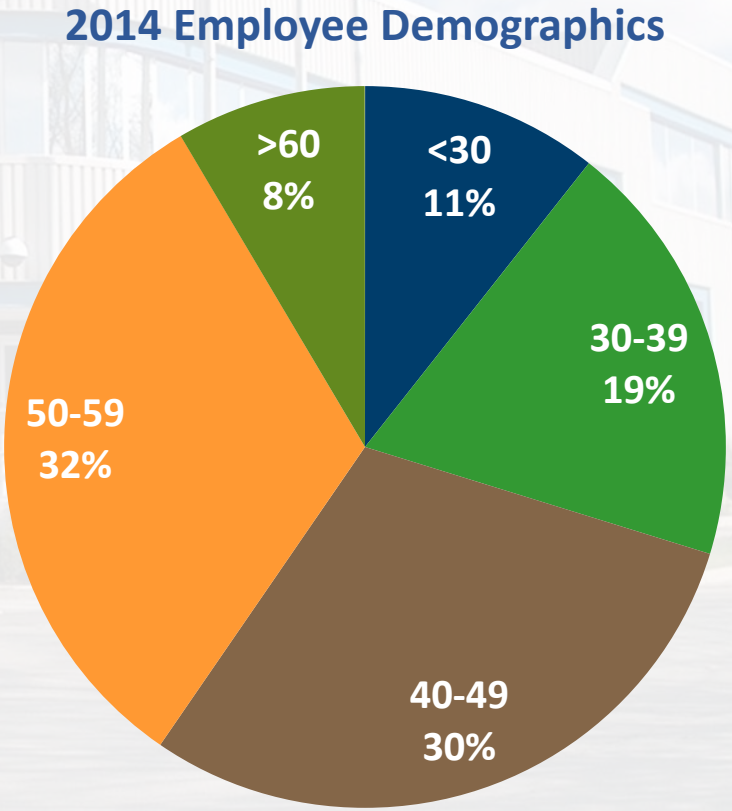
3 year tree trimming cycle for Halton Hills service area

Annual public meetings in tree trimming zone



Succession Planning

- Our current staff complement is 52 employees
- 2 new staff members in 2016
  - New Apprentice for Journeyman Lineman – 8 year commitment
  - Cross training of core functions throughout utility
  - Leverage existing staff to accomplish work more efficiently



Monthly Billing

- Mandated by Ontario Energy Board for 2016 for all Local Distribution Companies in Ontario
- Will double our postage costs
- Will double our printing and paper costs
- Will require an additional billing representative to handle increased workload

Revenue Requirement

Service Revenue Requirement	2016 Proposed
OM&A Expenses	6,859,246
Amortization / Depreciation	2,356,442
Income Taxes	(220,666)
Deemed Interest and Equity	3,477,714
Service Revenue Requirement	**12,472,736**

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Bill Impacts

Providing Halton Hills with electricity distribution excellence in a safe and reliable manner.

Bill Impacts – Residential (91% of Customers)

Based on a typical residential customer bill of 800 kWh per month			
	Current Charges	Proposed Charges	$Change
Halton Hills Hydro Charges			
Distribution Charges	$24.76	$28.65	$3.89
Ice Storm Cost Recovery (ends Oct 31, 2016)	$2.23	$2.33	$0.10
	$26.99	**$30.98**	**$3.99**
Other Delivery Charges	$19.92	$17.77	-$2.15
Regulatory Charges	$5.08	$5.07	-$0.01
Time of Use Charges	$81.71	$81.71	$0
HST	$17.38	$17.62	$0.24
Total Bill Impact May 1 – Oct 31	$151.08	$153.15	$2.07
Ice Storm Cost Recovery (ends Oct 31, 2016)	**After Oct 31, 2016**	**$0.00**	**-$2.33**
Total Bill Impact After Oct 31, 2016	**$151.08**	**$150.82**	**-$0.26**

Bill Impacts – Small Commercial (8% of Customers)

Based on a typical small commercial customer bill of 2000 kWh per month			
	Current Charges	Proposed Charges	$Change
Halton Hills Hydro Charges			
Distribution Charges	$47.35	$54.76	$7.41
Ice Storm Cost Recovery (ends Oct 31, 2016)	$4.87	$5.08	$0.21
	$52.22	**$59.84**	**$7.62**
Other Delivery Charges	$45.86	$40.66	-$5.20
Regulatory Charges	$26.34	$26.29	-$0.05
Time of Use Charges	$204.28	$204.28	$0
HST	$42.73	$43.04	$0.31
Total Bill Impact May 1 – Oct 31	$371.43	$374.11	$2.68
Ice Storm Cost Recovery (ends Oct 31, 2016)	**After Oct 31, 2016:**	**$0.00**	**-$5.08**
Total Bill Impact After Oct 31, 2016	**$371.43**	**$369.24**	**-$2.19**

Summary

- Halton Hills Hydro has a comprehensive 5 year investment strategy
- Halton Hills Hydro listens to our customers
- Halton Hills Hydro continues to find efficiencies in achieving performance excellence

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Questions?

Thank You