

# Toronto Local Advisory Committee Meeting

Toronto Hydro Grid Pressures and Relief Plan  
January 28, 2016



# How We're Managing Grid Pressures

# Ramping Up Renewal

- Toronto Hydro received a decision to its 2015-2019 rate application from the OEB
- Toronto Hydro's proposed capital budget will be reduced by 10% annually on the proposed \$2.5 B
- The 2015 base OM&A increase should be 2.1%, approximately the rate of inflation over the 2014 actual spending, providing a base OM&A of \$246 million.



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

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## DECISION AND ORDER

EB-2014-0116

### TORONTO HYDRO-ELECTRIC SYSTEM LIMITED

Application for electricity distribution rates effective from May 1, 2015 and for each following year effective January 1 through to December 31, 2019

**BEFORE:** Christine Long  
Presiding Member

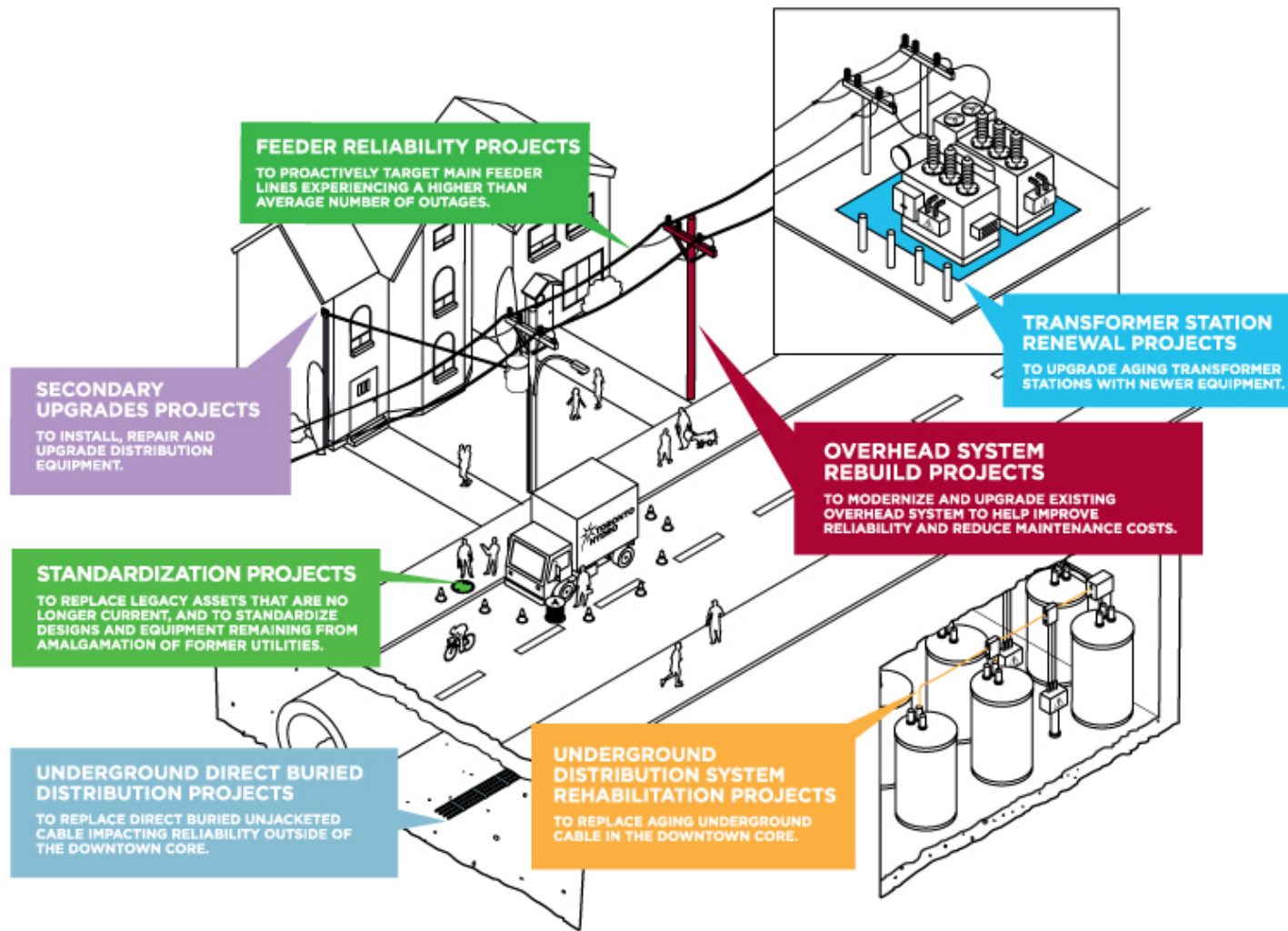
Ken Quesnelle  
Vice Chair and Member

Cathy Spoel  
Member

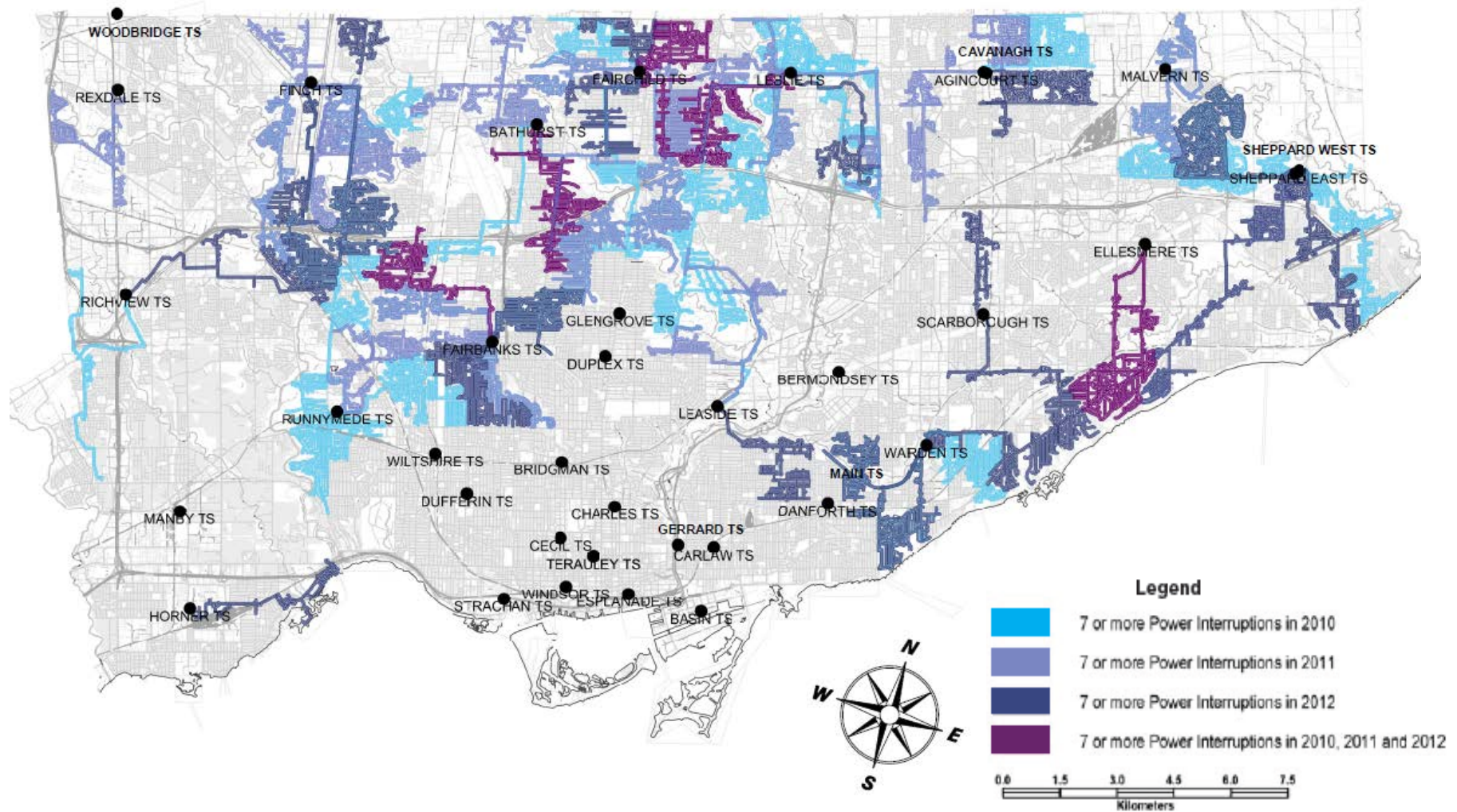
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December 29, 2015

# Renewal Projects



# Example Program: Worst Performing Feeders

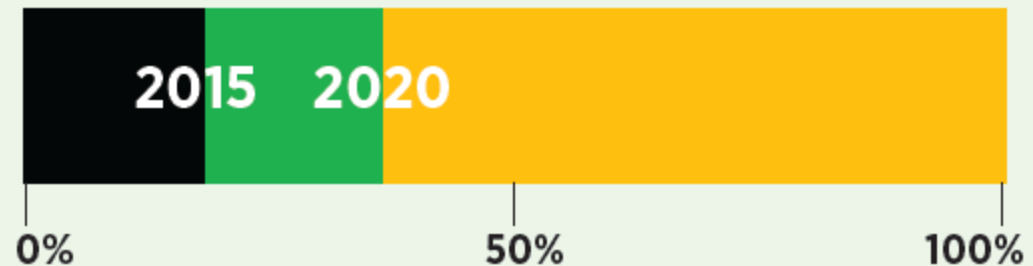


# Example Program: Direct Buried Cable Replacement

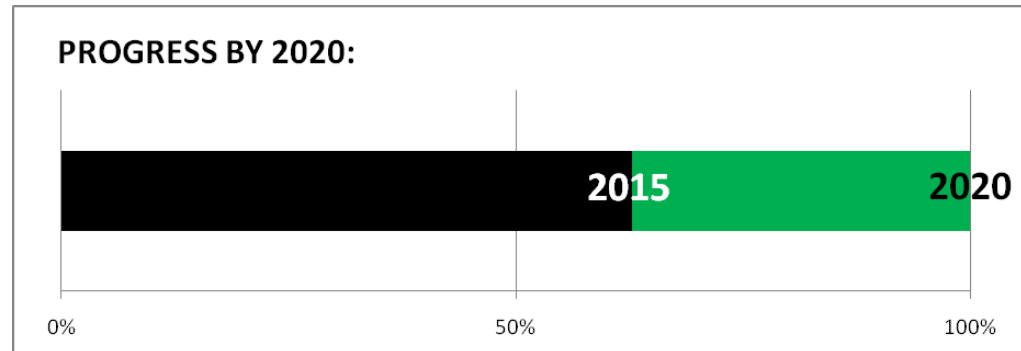


- Cables in parts of the former suburbs (Scarborough especially) were once laid directly in trenches with no protective barrier.
- These cables have proven very susceptible to repeated outages.
- Toronto Hydro is replacing these cables with water resistant cables in concrete-encased ducts.

## PROGRESS BY 2020:



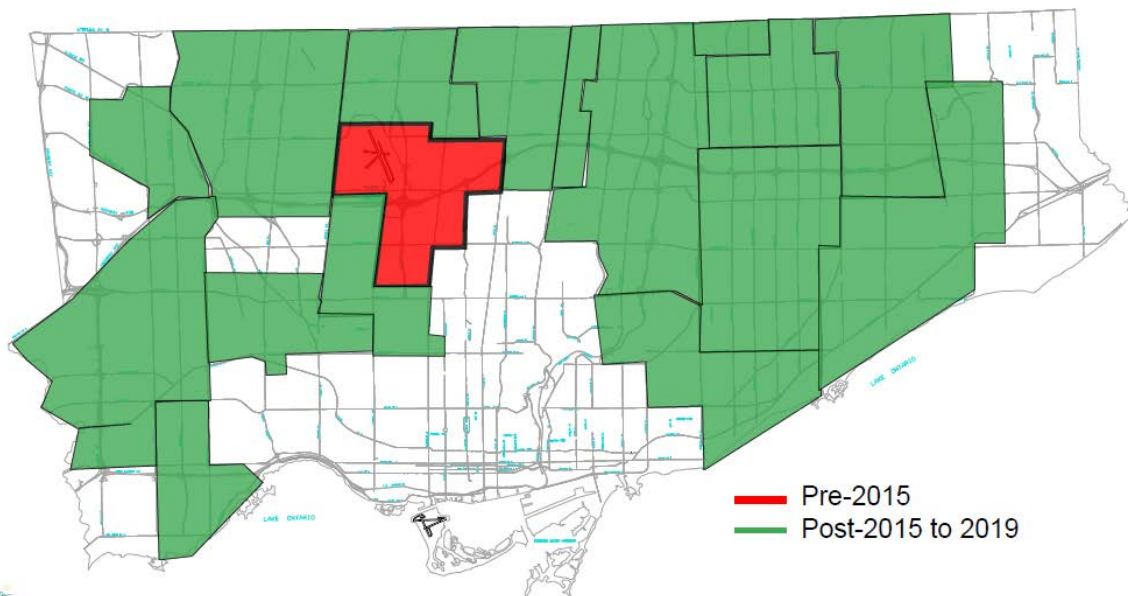
# Example Program: Replacing Legacy Network Equipment



- Toronto Hydro is gradually replacing old and worn-out ‘fibretop’ network units in the downtown area.
- These units were installed in the original system.
- Failure can result in vault fires and extensive outages.

# Example Program: Feeder Automation

- Toronto Hydro is installing intelligent overhead switches in the former suburbs.
- These switches isolate an outage to one section of a feeder in a matter of seconds, significantly improving outage restoration time for most customers on the feeder.
- By 2019, Toronto Hydro expects to install feeder automation throughout much of the former suburbs.

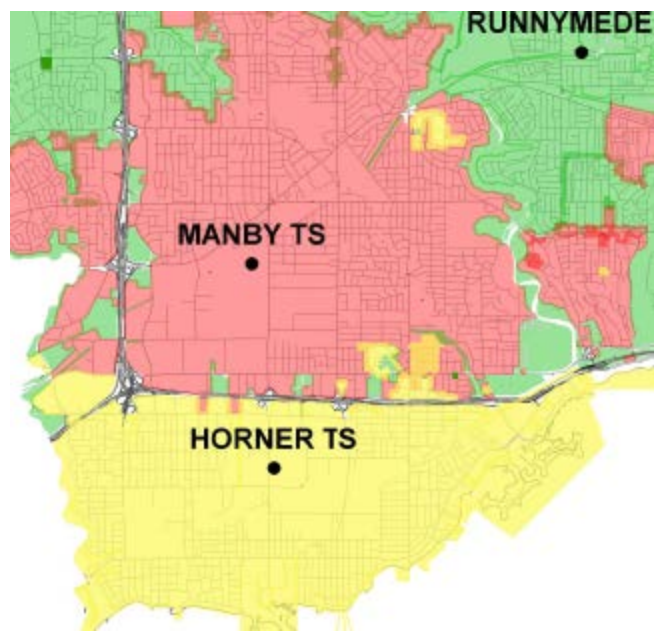




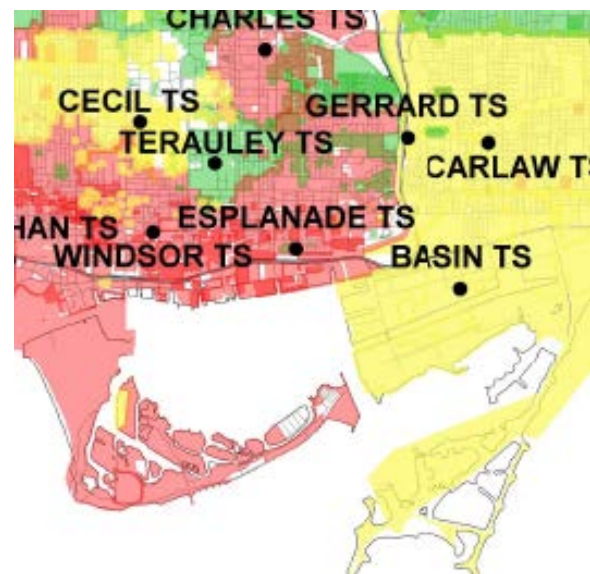
# Example Program: Stations Expansion

- Toronto Hydro is expanding the capacity of its distribution grid through stations upgrades and expansions.

Eg. West Toronto Capacity



Eg. Copeland Ph.2 Capacity



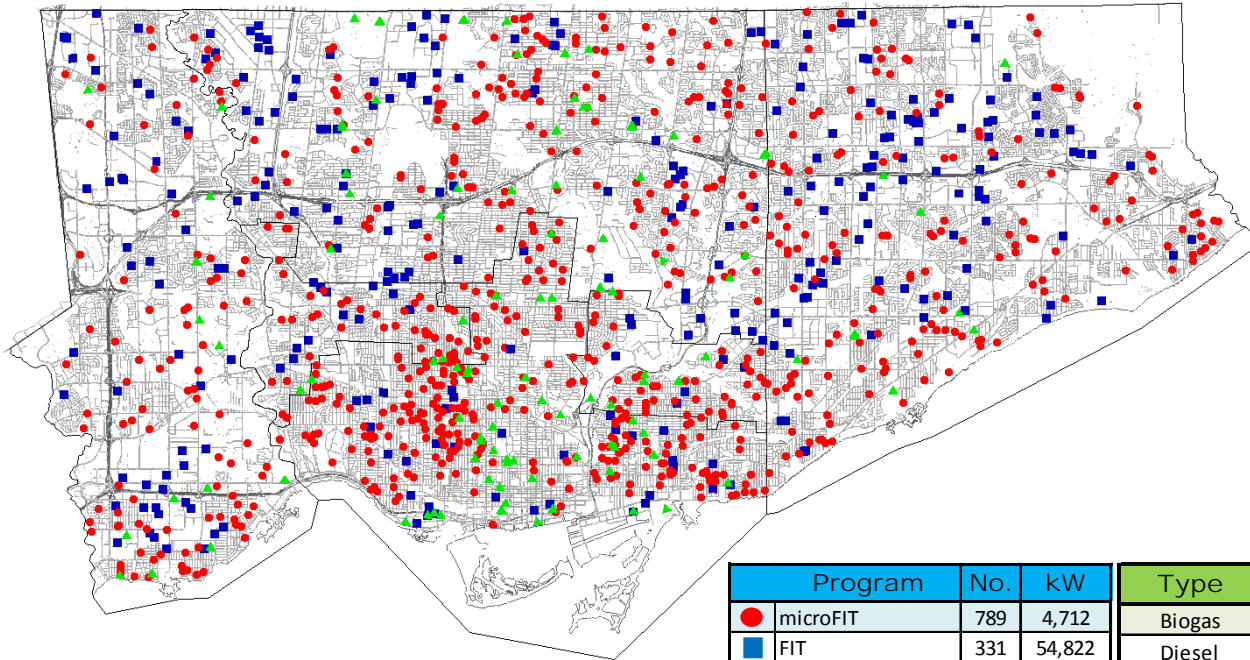
# Conservation, Demand Management (CDM)

- Toronto Hydro is implementing conservation programs for the period 2015-2020 (6 years).
- The conservation targets for Toronto Hydro total 1.58 TWh, out of a total of 7 TWh target for LDCs.
- Various-province-wide programs are underway (e.g. Energy Manager Program, Process and Systems Upgrades Program, Retrofit, Heating and Cooling Program, etc.)
- Custom programs are also in development which are intended to relieve capacity in special high-growth areas of Toronto.

# Distributed Generation (DG)

- Toronto Hydro provides interconnection for embedded generators across our distribution system.
- These DG resources total 140 MW in aggregate from approx. 1,200 facilities.
- Toronto Hydro is implementing an energy centre to monitor/forecast/control these DG resources.
- These DG resources are projected to increase by about 150 MW by the year 2019 and is expected to reach 750 MW in aggregate by 2025.

# Generation Resources (Nov.2015)



**System Demand = 5000 MW**

**DG Resource = 3.3% (2015)**

**DG Resource = 15% (2025)**

Program			Type		
	No.	kW		No.	kW
● microFIT	789	4,712	Biogas	1	4,700
■ FIT	331	54,822	Diesel	13	32,100
▲ Net Metering	63	1,380	Natural Gas	18	60,020
▲ RESOP	8	919	Photovoltaic	1190	61,139
▲ Load Displacement	25	51,943	Wind Turbine	2	753
▲ Closed Transition	9	31,750	Other	7	4,987
▲ Other	6	18,150			
<b>TOTAL</b>	<b>1231</b>	<b>163,699</b>	<b>TOTAL</b>	<b>1,231</b>	<b>163,699</b>

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