



# Bringing Energy to Life



# INTRODUCTION



David McFadden, Chair, Toronto Hydro Corporation Board of Directors,  
Anthony Haines, President and Chief Executive Officer, Toronto Hydro Corporation

We believe that it's our responsibility to do our part to build a cleaner, greener and brighter city. We set out to achieve this by providing safe and reliable service in a cost-effective and environmentally responsible way.

**Material Issues for Toronto Hydro:****Corresponding GRI G4 Aspects**

Strategy & Analysis, Organizational Profile, Identified Material Aspects and Boundaries, Report Parameters

**GRI General Standard Disclosures**

G4-1, G4-3, G4-4, G4-5, G4-6, G4-7, G4-8, G4-9, G4-11, G4-15, EU3, EU4, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-28, G4-29, G4-30, G4-31, G4-33

## Message from the Chair of the Board, and the President and Chief Executive Officer

We believe that it's our responsibility to do our part to build a cleaner, greener and brighter city. We set out to achieve this by providing safe and reliable service in a cost-effective and environmentally responsible manner.

Powering a world-class city into the future depends on the work being done today. In 2016, we continued to make improvements to our grid, customer service, emergency preparedness, sustainability initiatives and community outreach. To ensure reliability of service to the residents of Toronto, we made significant investments to renew our aging infrastructure, address reliability and safeguard our system against extreme weather events. We've also identified areas in the distribution system that will potentially be impacted by climate change and developed a plan to mitigate the projected impacts.

We regularly consult with customers on projects and welcome feedback. We continued to provide our customers with enhanced online tools, more community events and important safety tips. Internally, we took steps to better prepare for emergencies while educating the public on how they can prepare, too. The work we accomplished in 2016 will help pave the way for a brighter Toronto. We're proud of our progress and we'll continue to build on our efforts to support the homes and businesses of our city.

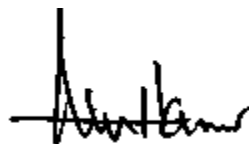
We've worked hard to create an electricity distribution system that's increasingly innovative in order to provide the highest quality of service to our customers. We've been very supportive of new innovation that can help us become a more sustainable organization. In 2016, we effectively implemented state-of-the-art energy storage projects, including community energy storage, pole-mounted energy storage and supported emerging technologies such as Hydrostor, an underwater compressed-air energy storage system.

We're proud of the work Toronto Hydro has done to demonstrate our commitment to sustainability and corporate responsibility. We also understand that we have more work to do moving forward, as the energy industry continues to evolve. We look forward to tackling these challenges while still maintaining excellent customer service for the people we serve.

On behalf of the Board of Directors and our management team, we want to thank our customers and stakeholders for their continued support. We also want to thank all of our dedicated employees, who helped us achieve another great year at Toronto Hydro.



**David McFadden**  
Chair  
Toronto Hydro Corporation Board of Directors



**Anthony Haines**  
President and Chief Executive Officer  
Toronto Hydro Corporation



# INTRODUCTION



## Message from Executive Sponsor Ave Lethbridge

Executive Vice-President and Chief Human Resources and Safety Officer

In my role as executive sponsor, I actively support the Environment, Health and Safety team as it drives awareness about our program and executes our commitments throughout the company. Organizationally, we continue to take practical steps to integrate our corporate responsibility practices into the core operations of our business.

Toronto Hydro continues to work towards achieving zero injuries and remain a sustainable electricity company. We regularly monitor and assess key metrics at all levels of the organization in an effort to reduce our environmental footprint and improve organizational efficiency. We also enable customers to be part of the shift to a sustainable economy by researching and connecting renewable power and energy storage to the grid, encouraging the use of electrified transportation, and offering a variety of commercial and home energy efficiency programs.

Persistent, hard work across the organization has paid off and Toronto Hydro has reduced greenhouse gas emissions and helped customers reduce their peak demand while making significant investments in electricity infrastructure. We're constantly striving to reduce our carbon footprint and have a deep commitment to continual improvement. We're proud to be a sustainable energy company and are dedicated to building a strong future for our employees and customers through the responsible use of our resources.

## Key Successes

Between January 1, 2015 and December 31, 2016, Toronto Hydro had the following successes and achievements related to activities in sustainability:

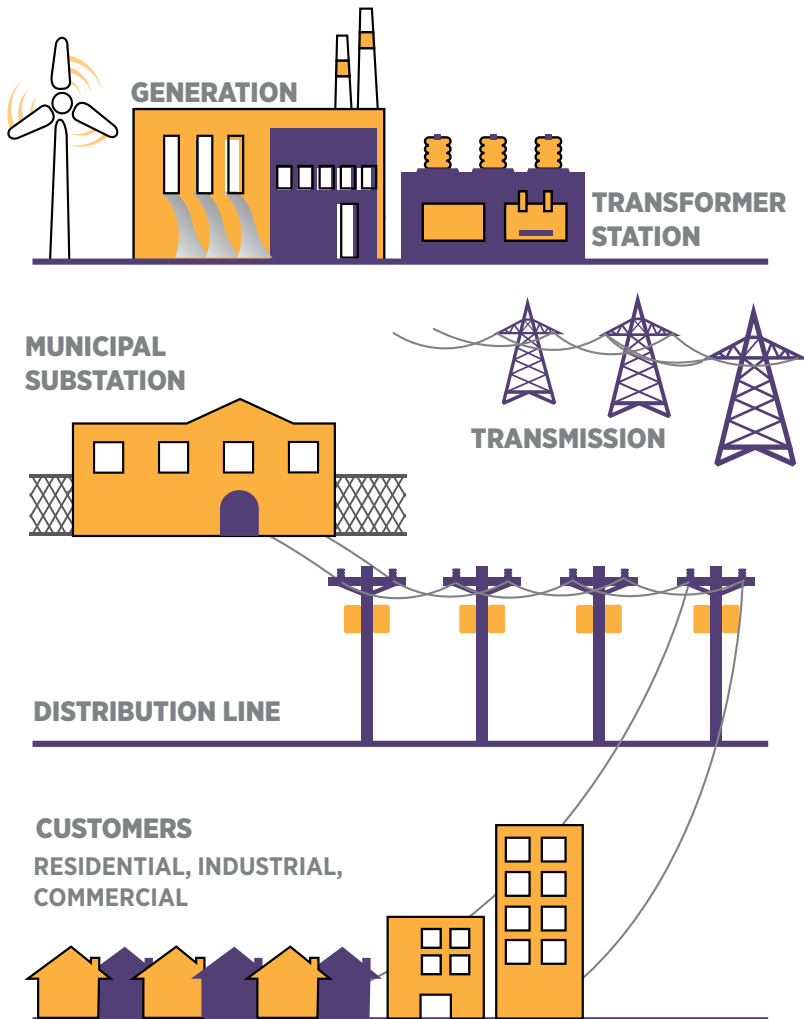
- Decreased the total Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 43,734 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e). This represents a 52% decrease in total GHG emissions in 2016 compared to 2014
- Achieved significant Conservation and Demand Management (CDM) savings (468 GWh total) representing a GHG emission reduction of 19,188 tonnes of CO<sub>2</sub>e
- Identified areas in the distribution system that will potentially be impacted by climate change and developed a plan to mitigate the projected impacts
- Worked five million hours without a lost time injury between December 2014 and June 2016
- Made significant progress on a facilities consolidation program to reduce the physical footprint of Toronto Hydro, while implementing initiatives to conserve natural resources, reduce costs and improve the work environment
- Participated in innovative energy storage projects aimed at reducing peak demand, including community energy storage, underwater energy storage and pole mounted energy storage
- Returned \$119.6 million in shareholder value through dividends to the City of Toronto
- Invested more than \$1 billion in the distribution grid to ensure safety and reliability of service to the residents of Toronto
- Received two awards from the Electrical Safety Authority, one in 2015 for Consumer and Home Safety and one in 2016 for Powerline Safety
- Successfully completed third-party public safety audits (Regulation 22/04) with zero findings for the fourth year in a row
- Enabled 334 Feed-in Tariff (FIT) interconnections totalling more than 39 MW of generation or approximately 25% of rooftop FIT solar generation installed in Ontario

G4-3 ··· G4-4

# About Toronto Hydro Corporation

The City of Toronto is the sole shareholder of Toronto Hydro Corporation (the “Corporation”), which wholly owns two subsidiaries:

- Toronto Hydro-Electric System Limited distributes electricity and engages in conservation and demand management (CDM) activities
- Toronto Hydro Energy Services Inc. owns street lighting assets in the City and provides maintenance and capital improvements to the City’s street lighting systems through a subcontract with Toronto Hydro



Throughout this report, references to “Toronto Hydro” or “the Company” are intended to refer to the utility, Toronto Hydro-Electric System Limited.

The electrical distribution business in Ontario is regulated by the Ontario Energy Board (OEB), which has broad powers relating to licensing standards of conduct and service, and the regulation of electricity distribution rates charged by Toronto Hydro and other electricity distributors in Ontario.

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G4-6

G4-7

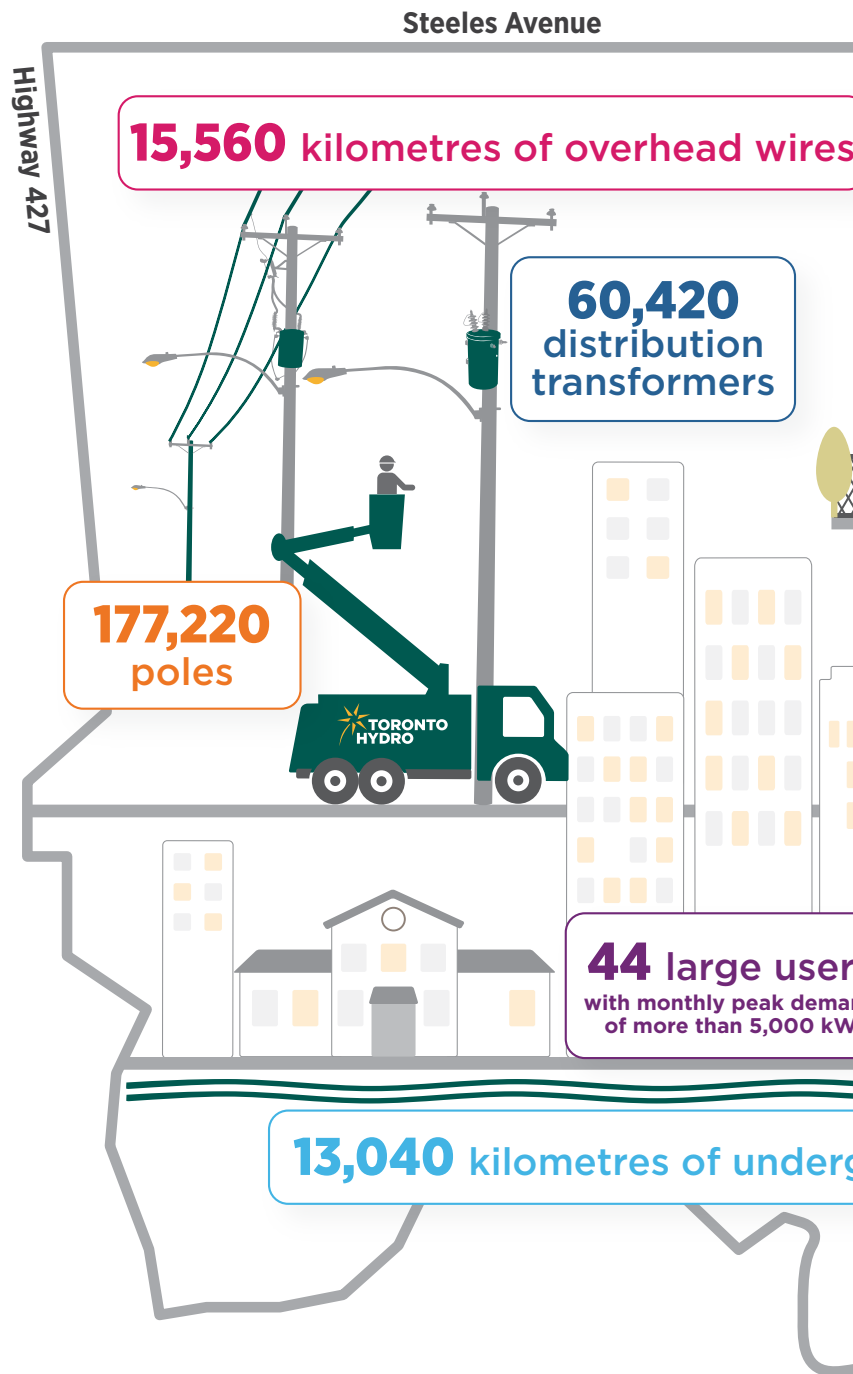
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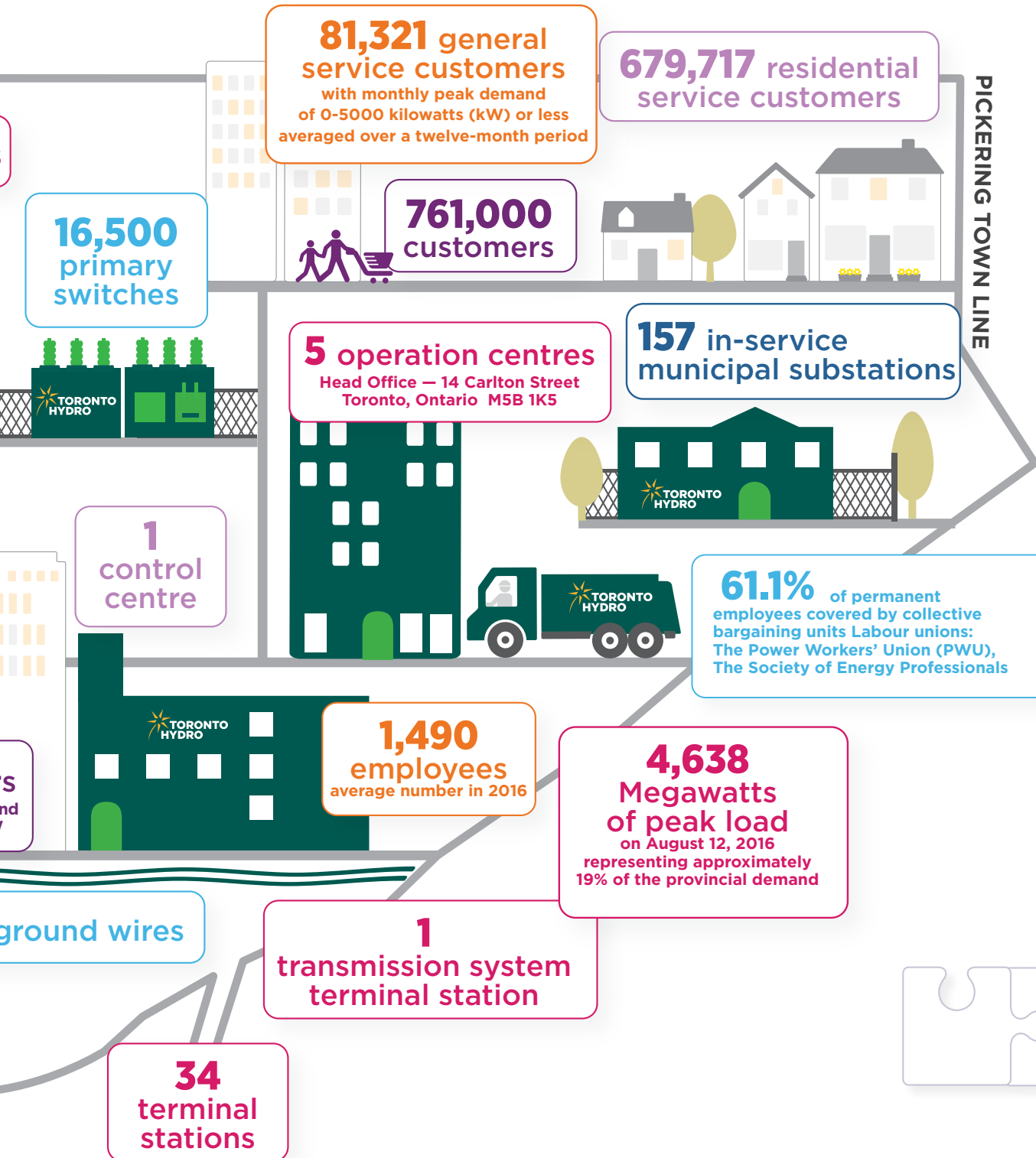
G4-9

G4-EU4

## Corporate Overview as of December 31, 2016

Toronto Hydro owns and operates **\$4.1 billion** of capital assets within Toronto, Ontario, Canada. Headquarters located at 14 Carlton Street, Toronto.





## Corporate mission and values, codes of conduct and principles

Toronto Hydro's vision is to "continuously maximize customer and stakeholders' satisfaction by being safe, reliable and environmentally responsible at optimal costs." Toronto Hydro has established an Enterprise Risk Management (ERM) framework that helps determine whether Toronto Hydro is positioned to achieve strategic objectives. The ERM framework provides a consistent, disciplined methodology for controlling risk by identifying, assessing, managing, monitoring and reporting risks to Toronto Hydro.

Toronto Hydro has four strategic pillars:

### PEOPLE

Fully-engaged, healthy, productive and safe workforce to meet changing business requirements

#### Strives to:

- Provide a healthy and safe workplace
- Develop a skilled and knowledgeable workforce
- Keep the workforce engaged

Toronto Hydro will continue to strengthen its already strong safety culture through various internal initiatives in order to achieve world-class results. Our commitment to employee health and safety will remain persistent, as we strive to minimize the risk of injury to the workforce. This will be accomplished through ongoing safety inspections, audits, training, education and awareness, employee participation, annual policy reviews and the continual improvement of safety programs and standards. Toronto Hydro will continue to promote the internal responsibility system to further enhance safety in the workplace.



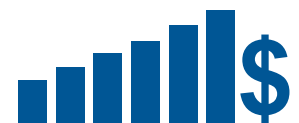
### FINANCIAL

Meet the financial objectives of its Shareholder

#### Strives to:

- Provide a fair return to our Shareholder
- Continue to increase Shareholder value

The Corporation has provided its shareholder with an annual increase in economic value over the last decade. To meet the financial objectives of the shareholder, Toronto Hydro Corporation seeks to increase shareholder value and is committed to providing a fair return to its shareholder in the future. Along with excellence in corporate financing and financial management, the Corporation will strive to maintain a strong credit rating.





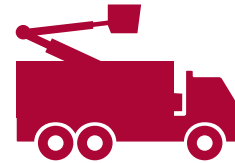
## OPERATIONS

Improve reliability through sustainable system management and climate change adaptation

### Strives to:

- Keep the lights on
- Keep the system safe
- Build a grid that supports a modern and growing Toronto

Toronto Hydro is engaging in resource and capital-intensive programs to help improve capacity, reliability, safety and quality. The capital program will replace aging assets and accommodate next generation technology to suit the regulatory trends that incent the increased use of distributed generation.



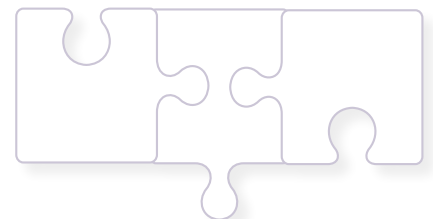
## Customer

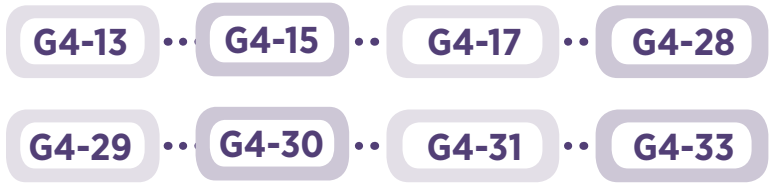
Provide value to customers

### Strives to:

- Make the company easy to work with
- Help customers conserve energy
- Provide innovative tools and technology

Toronto Hydro is looking at ways to improve the level of customer satisfaction, whether through education and awareness programs, or interaction with call centre representatives, account managers or over the Internet. Toronto Hydro continues to undertake initiatives and invest in technology and processes to improve the customer experience.





## About this Report

This report covers the 2015 and 2016 calendar years. It was prepared in accordance with the G4 Sustainability Reporting Guidelines developed by Global Reporting Initiative (GRI), and includes additional disclosures required by the Electric Utilities Sector Supplement. This is the second report published by Toronto Hydro using this guideline.

This report is available in a full-length PDF, which can be downloaded from the Toronto Hydro website at [torontohydro.com/responsibility](http://torontohydro.com/responsibility). This report is published every two years. The last report was published in 2015 for the years 2013 and 2014, however Environmental Reports to the City of Toronto were filed in 2015 and 2016, and a Corporate Responsibility Highlights Report was filed in 2015.

There were two significant changes from the previous report. Specifically, the operations based out of the west side of Toronto was relocated from a facility at 6 Monogram Place to a facility at 71 Rexdale Boulevard. Additionally, Toronto Hydro worked on renovations to a building at 715 Milner, which replaced the work centre in the east end of Toronto in 2017.

### Sustainability at Toronto Hydro

Toronto Hydro approaches sustainability as the elimination of waste throughout its operations, including the elimination of wasted natural resources, wasted human potential and wasted financial resources.

In addition to GRI, the following key international protocols and standards are used to guide Toronto Hydro's activities:



#### CEA Sustainable Electricity Program

— guide for social, environmental and economic standards and is largely based on ISO 26000:2010 and ISO 14001:2004

**ISO 31000: 2009** — Risk Management – guide to implement the Enterprise Risk Management framework whereby organizational risks are identified, assessed, treated, monitored and reviewed

**OHSAS 18001:2007** — internationally recognized standard for establishing occupational health and safety management systems

**ISO 14001:2004** — internationally recognized standard for establishing environmental management systems

**Excellence Innovation and Wellness Standard** — a standard developed by Excellence Canada for organizational performance, based upon the most effective practices and proven management strategies from around the world

## Accountability of the Report

Accountability for the production of the Corporate Responsibility Report lies with the Toronto Hydro Environment, Health and Safety department. Information included in this report is also reviewed by Toronto Hydro's Disclosure Policy Committee and representatives from Toronto Hydro's Finance, Legal, Regulatory, and Communications divisions.

Accuracy of the data provided in this report is assured through internal and third-party reviews, where applicable.

To reduce potential for data entry error, a sample verification of select indicators was conducted (including electricity, natural gas, vehicle fuel, waste, spills, employment, community investment, sulphur hexafluoride releases).

Toronto Hydro's sustainability data and practices are periodically verified as part of the Canadian Electricity Association's Sustainable Electricity Program to ensure information is accurate and correct.

Toronto Hydro's environmental management system and occupational health and safety management program are audited annually by Intertek to verify conformance with ISO 14001:2004 and OHSAS 18001:2007. The most recent audit was completed in November 2016.

Toronto Hydro is audited annually by an independent third party acting on behalf of the Electrical Safety Authority to verify compliance with the Electrical Distribution Safety requirements set out in Ontario Regulation 22/04. The regulation establishes safety requirements for the design, construction and maintenance of electrical distribution systems. There were no audit findings in 2015 and 2016.

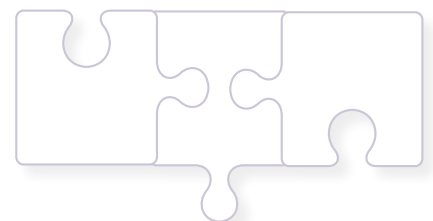
The Corporation's 2015 and 2016 consolidated financial statements were audited by KPMG LLP. The consolidated financial statements and management's discussion and analysis can be accessed at [torontohydro.com](http://torontohydro.com), on the System for Electronic Document Analysis and Retrieval website at [sedar.com](http://sedar.com), or can be requested from the Corporation.

Input from the public about this report is welcomed.  
Please send feedback to [sustainability@torontohydro.com](mailto:sustainability@torontohydro.com).

Inquiries can also be directed to:

**Executive Vice-President and Chief Human Resources & Safety Officer**

Toronto Hydro  
14 Carlton Street  
Toronto, ON M5B 1K5



## MATERIALITY AND STAKEHOLDER ENGAGEMENT



## MATERIALITY AND STAKEHOLDER ENGAGEMENT

Materiality assessment and stakeholder engagement are key to the development of Toronto Hydro's sustainability strategy and program. As such, Toronto Hydro has undertaken a comprehensive stakeholder consultation to better understand the priorities of stakeholders. After consulting with different stakeholders, aspects from each group were prioritized, and the information gathered was used to shape this report. Communication and engagement with stakeholders is an ongoing process at Toronto Hydro.

**G4-18**

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**G4-21**

## MATERIALITY ASSESSMENT

### **Facilitation of stakeholder consultation**

Deloitte LLP assisted Toronto Hydro in the completion of a materiality assessment in early 2015. Specifically, Deloitte supported Toronto Hydro in updating its list of sustainability issues and organizational stakeholders. A consultation with a cross-section of internal and external stakeholders was conducted with Toronto Hydro through telephone surveys, online surveys, focus groups and interviews. The purpose of these consultations was to prioritize the sustainability issues, as well as understand stakeholders' perceptions and expectations of Toronto Hydro. The prioritized issues from each stakeholder group were aggregated into a materiality matrix in order to rank the sustainability issues in terms of overall importance to Toronto Hydro and overall importance to stakeholders.

### **Process for defining report content**

Toronto Hydro initiated a formal materiality assessment in late 2014 and it was concluded in early 2015. The materiality assessment was vital in identifying the content of the Toronto Hydro Corporate Responsibility Report. It helped ensure that the report covered the sustainability issues of greatest concern to Toronto Hydro's stakeholders, including the business environment, the nature of operations, economic, environmental and social impacts. This exercise, carried out in the four stages outlined on the following page (as per the GRI G4 guideline), was conducted with internal and external stakeholder participation.





## Stage 1: Identification — How potential material issues were determined for Toronto Hydro

During the first stage, Toronto Hydro examined more than 50 issues, including areas of significant organizational impact, as well as broader sustainability trends affecting Toronto Hydro. These issues were grouped into broad categories, such as community involvement, consumers and customers, environment, governance and fair practices, and labour practices and human rights. Please see the comprehensive list below:

<p><b>Governance and fair practices</b></p> <ul style="list-style-type: none"> <li>• Anti-Competitive Behaviour</li> <li>• Anti-Corruption</li> <li>• Compliance</li> <li>• Economic Performance</li> <li>• Grievance Mechanisms</li> <li>• Respect for Property Rights</li> <li>• Internal Policies</li> <li>• Public Policy Involvement</li> <li>• Responsible Procurement and Supplier Assessment</li> </ul>		<p><b>Community involvement</b></p> <ul style="list-style-type: none"> <li>• Donations and Sponsorship</li> <li>• Employee Volunteering</li> <li>• Non Government Organization (NGO) Engagement</li> <li>• Partnerships/Alliances</li> <li>• Research and Development</li> </ul>	
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• Air Emissions</li> <li>• Climate Change</li> <li>• Environmental Management Systems</li> <li>• Green Fleet/Transport</li> <li>• Habitat and Biodiversity</li> <li>• Hazardous Waste and Spills Management</li> <li>• Land Management</li> <li>• Material Selection and Usage</li> <li>• Renewable Energy</li> <li>• Waste, By-Products and Recycling</li> <li>• Water Quality, Availability and Usage</li> </ul>		<p><b>Labour practices and human rights</b></p> <ul style="list-style-type: none"> <li>• Aboriginal Rights</li> <li>• Non-Discrimination</li> <li>• Diversity and Equal Opportunity</li> <li>• Employee Attraction and Retention</li> <li>• Equal Compensation for Women and Men</li> <li>• Labour/Management Relations</li> <li>• Occupational Health, Safety and Wellness</li> <li>• Retirement and Succession Planning</li> <li>• Contractor Health and Safety</li> <li>• Training and Education</li> </ul>	
		<p><b>Customers</b></p> <ul style="list-style-type: none"> <li>• Customer Privacy</li> <li>• Service Access</li> <li>• Public Safety</li> <li>• Responsible Marketing</li> <li>• Customer and Consumer Education</li> <li>• Conservation and Demand-Side Management</li> <li>• Emergency Preparedness and Response</li> <li>• Grid Investment</li> <li>• Service Reliability</li> </ul>	

As part of the first stage, Toronto Hydro selected the stakeholder groups below to engage in this process. These stakeholders were selected based on their influence, impact and responsibility.

- City of Toronto (as shareholder)
- Employees
- Peers
- Customers
- Contractors
- Suppliers
- Industry associations
- Not-for-profit organizations
- Economic partners
- Government
- Academia

To identify issues of importance to stakeholders, the following documents were reviewed as part of the materiality study conducted in 2015; peer sustainability reports, the ISO 26000:2010 standard, the ISO 14001:2004 standard, CEA reports, Electric Power Research Institute's list of Top 15 Material Issues; the GRI's Standard Disclosures and Electric Utilities Sector Supplement; and Toronto Hydro's Strategic Direction 2014.

Sixteen sustainability issues were identified and mapped to corresponding GRI G4 aspects (see table below).

## Stage 2: Prioritization — How material issues were selected for Toronto Hydro

During this phase, executives provided feedback on the list of issues and ranked them based on:

- Issues' impact on Toronto Hydro's business priorities (i.e. business risk and opportunity)
- Toronto Hydro's ability to exert control over each issue

Consultations with stakeholders were hosted to gather their input from:

<b>eight</b> employee interviews	<b>two</b> employee focus groups, bringing together a cross-section of departments	<b>186</b> online surveys to employees
<b>18</b> external stakeholder interviews	<b>1,000</b> residential and commercial customer telephone and online surveys	<b>one</b> social media scan

During the consultation, stakeholders were asked to rank the issues based on 1) importance to their organization and 2) importance for Toronto Hydro to address in its sustainability strategy. Additionally, stakeholders identified topics missing from this list. Stakeholders identified qualitative and quantitative data related to Toronto Hydro's environmental, economic and social performance should be provided as well as a comparison against the performance of peers.



# MATERIALITY AND STAKEHOLDER ENGAGEMENT

**G4-20** .. **G4-21** .. **G4-23**

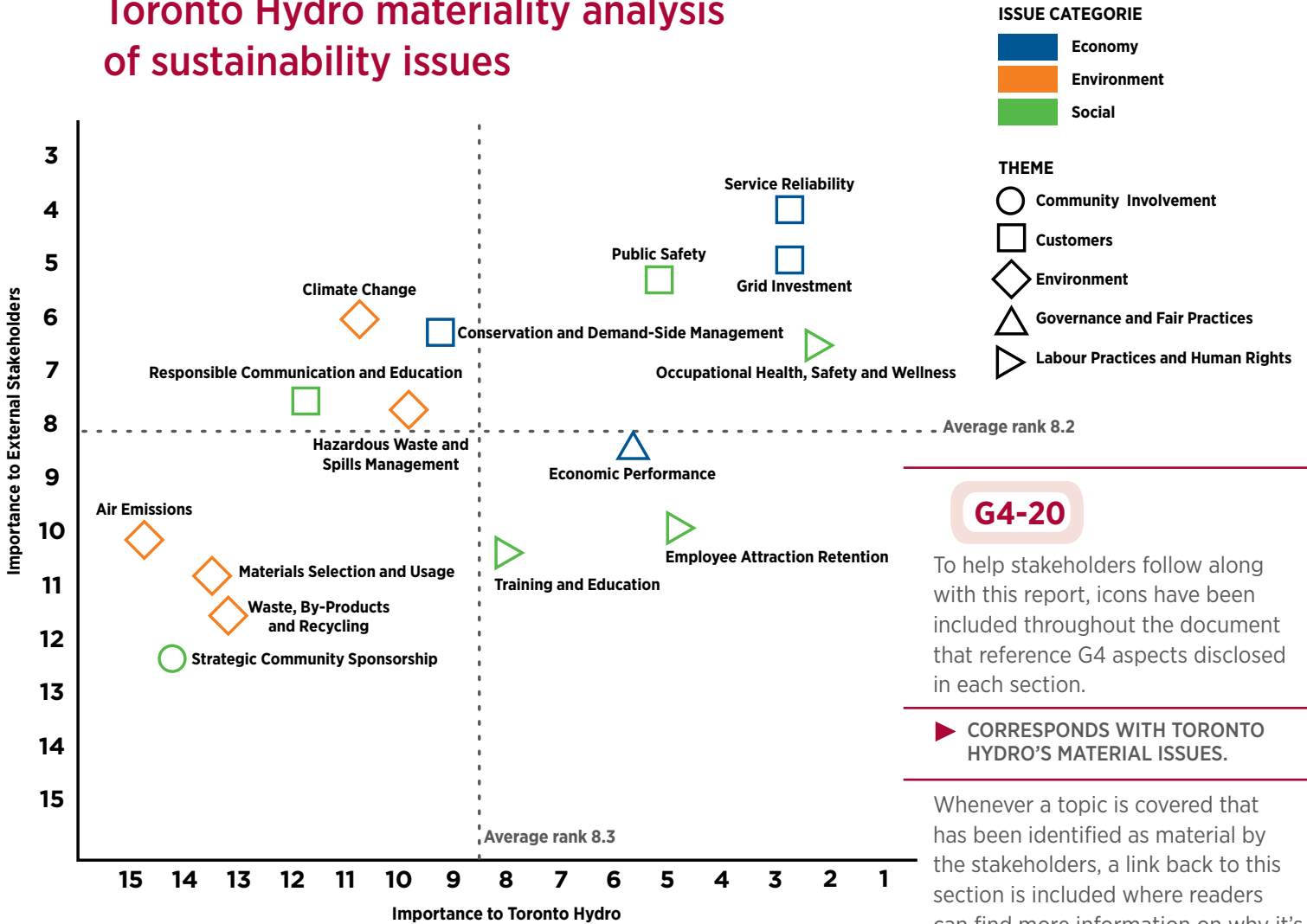
Aspect definitions and boundaries are presented in the table below. The Aspect boundaries were defined after evaluating whether the greatest impact of each issue was to internal or external stakeholders. There have been no significant changes to the boundaries since the 2014 report.

This table maps Toronto Hydro's material issues to the corresponding GRI G4 Aspects

Toronto Hydro's Material Issue	Corresponding GRI G4 Aspect	Boundary
<b>Community Involvement</b>		
Strategic Community Sponsorship	Economic Performance	External
<b>Consumers and Customers</b>		
Conservation and Demand Management	Demand-Side Management	External
Emergency Preparedness and Response	Disaster/Emergency Planning and Response	Mixed (External & Internal)
Grid Investment	Research and Development	Mixed (External & Internal)
Availability and Reliability	Mixed (External & Internal)	
Public Safety	Customer Health and Safety	External
Responsible Communication and Education	Provision of Information	External
Service Reliability	Availability and Reliability Access	External
<b>Environment</b>		
Air Emissions	Emissions	Internal
Climate Change	Emissions	Mixed (External & Internal)
Materials Selection and Usage	Procurement Practices Supplier Assessment for Labour Practices Supplier Environmental Assessment	Mixed (External & Internal)
Hazardous Waste and Spills Management	Effluents and Waste Compliance	Internal
Waste, By-Products and Recycling	Effluents and Waste	Internal
<b>Governance and Fair Practices</b>		
Economic Performance	Economic Performance	Mixed (External & Internal)
<b>Labour Practices and Human Rights</b>		
Employee Attraction and Retention	Employment	Internal
Occupational Health, Safety and Wellness	Occupational Health and Safety	Internal
Training and Education	Training and Education	Internal

The Materiality Matrix below illustrates the prioritization of the 16 issues in accordance to their importance to Toronto Hydro and the external stakeholders who participated in the materiality assessment.

## Toronto Hydro materiality analysis of sustainability issues



### G4-20

To help stakeholders follow along with this report, icons have been included throughout the document that reference G4 aspects disclosed in each section.

**▶ CORRESPONDS WITH TORONTO HYDRO'S MATERIAL ISSUES.**

Whenever a topic is covered that has been identified as material by the stakeholders, a link back to this section is included where readers can find more information on why it's been included in this report.

## Stage 3: Validation

The material issues list was presented to Toronto Hydro's senior management prior to external stakeholder engagement. External input was gathered following the initial presentation to senior management and the issues list did not change. The list was then reconfirmed with senior management responsible for the Corporate Responsibility Report.

## Stage 4: Review

To gather feedback on this report and provide information for the next reporting cycle, a review of the report with stakeholders will be conducted prior to the next reporting cycle.



G4-16

G4-24

G4-25

G4-26

G4-27

## STAKEHOLDER ENGAGEMENT

### Engaging with stakeholders

Toronto Hydro regularly communicates with its stakeholders through a number of different methods and then integrates their interests into a strategic plan.

Since 2015, Toronto Hydro has attended more than 45 city councillor-hosted events, where customers were informed about energy conservation and received coupons for energy-efficient products, conservation tips, information on low-income programs offered and emergency preparedness brochures. Toronto Hydro also regularly engages with customers through participation in face-to-face meetings, surveys, publications and traditional/social media.

Toronto Hydro meets regularly with stakeholders such as the City's Office of Emergency Management, Ontario's Office of the Fire Marshall, Emergency Management Ontario and the Independent Electricity System Operator's (IESO) Emergency Preparedness Task Force.

The Company strives to ensure stakeholder concerns are regularly considered in both everyday business decisions and long-term planning. Key stakeholders are reviewed on an annual basis to ensure the concerns and expectations from the community are a consideration in Toronto Hydro's business practices. Stakeholder issues are reported to a cross-functional executive team for discussion, coordination and integration into Toronto Hydro's business and affairs. Toronto Hydro's Office of the President works to resolve escalated customer issues, and resolved more than 3,200 customer issues between January 1, 2015 and December 31, 2016.



## Our key stakeholders include:

### **CUSTOMERS – RESIDENTIAL, BUSINESS AND COMMERCIAL CUSTOMERS**

We communicate with this group regularly through:

- Engagement in our CDM programs
- Newsletters
- Correspondence
- Face-to-face meetings
- Notifications about neighbourhood construction
- Community events

### **COLLEGES AND UNIVERSITIES – including Georgian College and Ryerson University's Centre for Urban Energy**

We work with the academic community through:

- Sponsorships
- Curriculum development
- Research projects

### **EMPLOYEES** We communicate with this group regularly through:

- Training programs
- Employee engagement initiatives
- Corporate communications channels including bi-annual employee magazine, intranet, bulletins, monthly posters and daily digital signage

### **GOVERNMENT** – provincial and federal government bodies such as the IESO, Ministry of Energy

We work with this group through a broad base of initiatives, including:

- Outreach with Members of Provincial Parliament to advise about riding-specific projects
- Support of Ministry of Energy's policies and initiatives

### **INDUSTRY ASSOCIATIONS** – Please see our list of memberships on page 35

We communicate with this group regularly through:

- Participation on boards of directors and working committees

### **NON-GOVERNMENT, NOT-FOR-PROFIT AND COMMUNITY ORGANIZATION**

We work with this group regularly through:

- Employee fundraising efforts for charities and not-for-profit organizations within the city
- Corporate sponsorships

### **REGULATOR – ONTARIO ENERGY BOARD (OEB)**

We communicate with this group regularly through:

- Active rate filings and other OEB-sponsored proceedings

### **SHAREHOLDER** – the City of Toronto is the Corporation's sole shareholder

We communicate with this group regularly through:

- Councillor engagement to update them on construction projects and other business taking place in their wards
- Collaborating with the city on energy conservation initiatives
- Discussion of financial performance and corporate governance based on Shareholder Direction





## OUR CITY



## OUR CITY

Toronto Hydro strives to contribute to the improvement of Canada's largest city. This consists of significant investment in the electricity distribution infrastructure within the city, as well as giving back to the community. Toronto Hydro has developed long-term plans to support the growth of the city, implemented initiatives to ensure safe and reliable service is provided to residents and made investments in infrastructure to support the electrification of transportation. Toronto Hydro also contributes to the economic health of the city through an annual dividend to the City of Toronto.

<b>Material Issues for Toronto Hydro:</b>	<b>Economic Performance, Service Reliability, Grid Investment, Conservation and Demand Management, Material Selection and Usage, Strategic Community Sponsorships; Responsible Communication &amp; Education; Public Safety</b>
<b>Corresponding GRI G4 Aspects:</b>	Economic Performance, Procurement Practices, Availability and Reliability, Demand-Side Management, Research and Development, Customer Health & Safety, Marketing & Communications, and Provision of Information
<b>GRI General Standard Disclosures:</b>	G4-12
<b>GRI Specific Standard Disclosures:</b>	EC1, EU10, EU28, EU29, EN32, LA14, PR2, PR7

# ECONOMIC PERFORMANCE

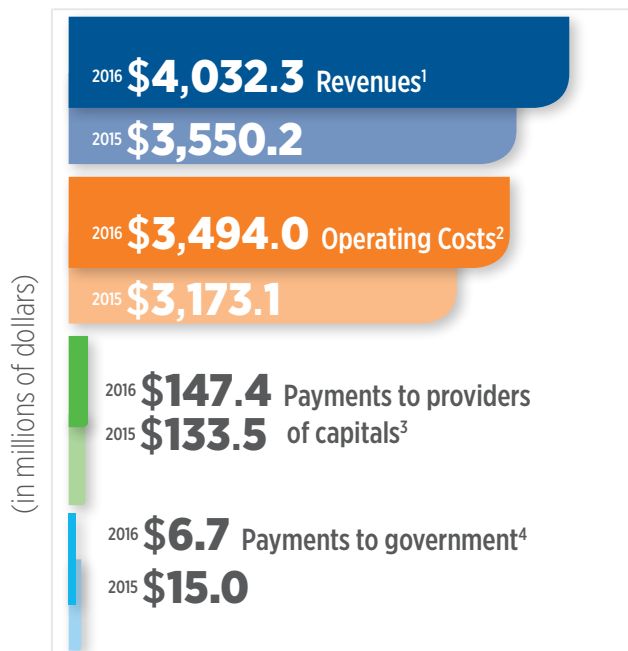
## G4-DMA

### Management approach to economic performance

Toronto Hydro operates within the OEB’s regulatory framework for electricity distributors, which is designed to support the cost-effective planning and operation of the electricity distribution network and to provide an appropriate alignment between a sustainable, financially viable electricity sector and the expectations of customers for reliable service at a reasonable price. Toronto Hydro operates in a regulated environment and must seek approval from the OEB for rate adjustments.

Strong financial performance allows Toronto Hydro to execute critical infrastructure renewal and enables the delivery of power to Torontonians in a safe, reliable and environmentally responsible manner. Toronto Hydro’s economic performance fulfills an important requirement within the City of Toronto’s Shareholder Direction, to deliver dividends to the City of Toronto.

## EC1



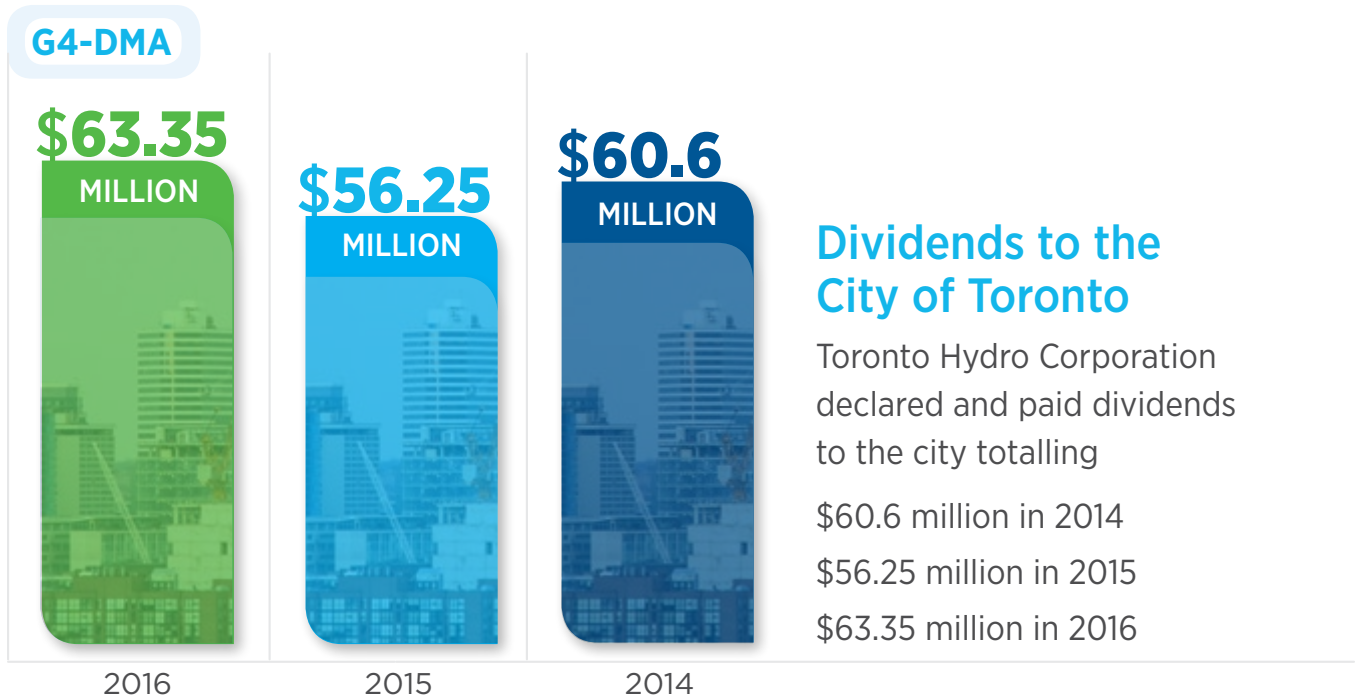
## TORONTO HYDRO CORPORATION’S ECONOMIC PERFORMANCE

The following information is from the Corporation’s consolidated financial statements, which includes both Toronto Hydro and Toronto Hydro Energy Services Inc.

The above economic performance measures have been calculated as per the GRI manual:

1. Revenues include energy sales, distribution revenue, other revenue, gain on disposals of property, plant and equipment, and interest income per the Corporation’s 2016 audited consolidated financial statements and accompanying notes.
2. Operating costs include operating expenses and energy purchases per the Corporation’s 2016 audited consolidated financial statements.
3. Payments to providers of capital include dividends paid to the City of Toronto and interest paid to providers of capital per the Corporation’s 2016 audited consolidated financial statements.
4. Payments to government include income taxes paid per the Corporation’s 2016 audited consolidated financial statements and municipal property taxes paid.

## OUR CITY



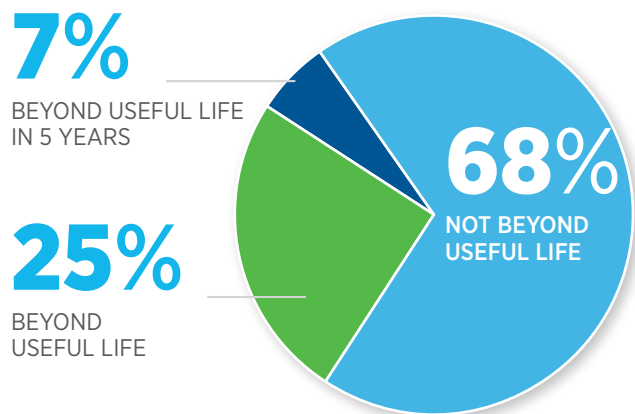
## AVAILABILITY AND RELIABILITY

► Corresponding Toronto Hydro's Material Issues Grid Investment and Service Reliability

### Management approach to availability and reliability

1. In order to ensure reliable service to all areas of the city, Toronto Hydro invests in the distribution grid, develops and executes plans for future growth, conducts inspections of assets and carries out maintenance of assets to prolong their life and reduce costs to the customer.
2. Toronto Hydro's infrastructure is aging and needs to be replaced and renewed in order to continue to provide safe and reliable service. At the end of 2016, approximately 25% of Toronto Hydro's distribution assets were past their useful life.
3. In addition, the City of Toronto has and continues to experience significant growth, particularly in high-rise development. In 2016 alone, there were approximately 129 new construction projects planned or underway in the City of Toronto.

**More than 30% of our distribution equipment needs to be replaced by 2020**



## Investing in the grid - Capital Expenditure Plan

Renewing the grid and replacing aging distribution equipment, while meeting the needs of a growing city, is a costly and complex endeavour. To address these challenges, Toronto Hydro has developed a five-year capital plan, known as the 2015-2019 Distribution System Plan (the “DSP”). The DSP was presented to the OEB in 2014/2015 and allowed Toronto Hydro to secure funding to invest in the system. The DSP consists of four main investment categories: system access, system renewal, system service and general plant.

- 1. Investments in the System Access category** are driven by statutory, regulatory or other obligations to provide customers with access to Toronto Hydro’s distribution system. This category includes investments to connect renewable energy generation facilities, and metering-related investments to maintain compliance with Measurement Canada regulations and the IESO Market Rules.
- 2. Investments in the System Renewal category** target the renewal and reconfiguration of distribution assets that are no longer performing at an acceptable standard. These programs focus on remediating assets that are at, near or exceeding the end of their useful lives, and assets that no longer align to current operating practices. This includes assets with accessibility or serviceability conflicts (e.g. assets located in ravines, rear lots, highway crossings, etc.), which pose increased reliability and safety-related risks.
- 3. Investments in the System Service category** target system-wide critical issues such as capacity and operational constraints, security-of-supply, safety, system reliability and other considerations for the effective operation of the distribution grid.
- 4. Investments in the General Plant category** are essential to Toronto Hydro’s 24/7 day-to-day operational activities. These investments include the upgrade and renewal of critical software and hardware systems, vehicles and associated equipment, and facilities.

### Investing in the distribution grid

In 2015 and 2016 combined, the Corporation spent more than a billion dollars in capital expenditures.

These investments notably include:

- Renewing aging underground and overhead infrastructure
- Providing additional capacity in the downtown core through Copeland Station
- Expanding and enhancing the distribution system to connect new customers
- Consolidating and modernizing Toronto Hydro’s work centres in east and west areas of the city
- Upgrading critical radio system infrastructure to support safe and efficient distribution operations

The following table summarizes Toronto Hydro Corporation’s capital expenditures for the periods indicated (in millions of Canadian dollars).

	Year Ended December 31 (in millions \$)	
	2016	2015
<b>Regulated local distribution company</b>		
<b>Distribution system</b>		
Planned <sup>1</sup>	365.3	392.8
Reactive	47.6	35.8
Copeland Station	22.6	23.7
Facilities Consolidation	50.6	31.3
Technology assets	49.1	28.9
Other <sup>2</sup>	10.8	20.1
<b>Regulated Capital Expenditures</b>	<b>546.0</b>	<b>532.6</b>
<b>Unregulated Capital Expenditures<sup>3</sup></b>	<b>5.7</b>	<b>4.6</b>
<b>Total consolidated capital expenditures</b>	<b>551.7</b>	<b>537.2</b>

1. Includes, among other initiatives, the replacement of underground and overhead infrastructure and the delivery of customer connections.

2. Includes fleet capital and buildings.

3. Primarily relates to street lighting and generation equipment.



G4-EU28

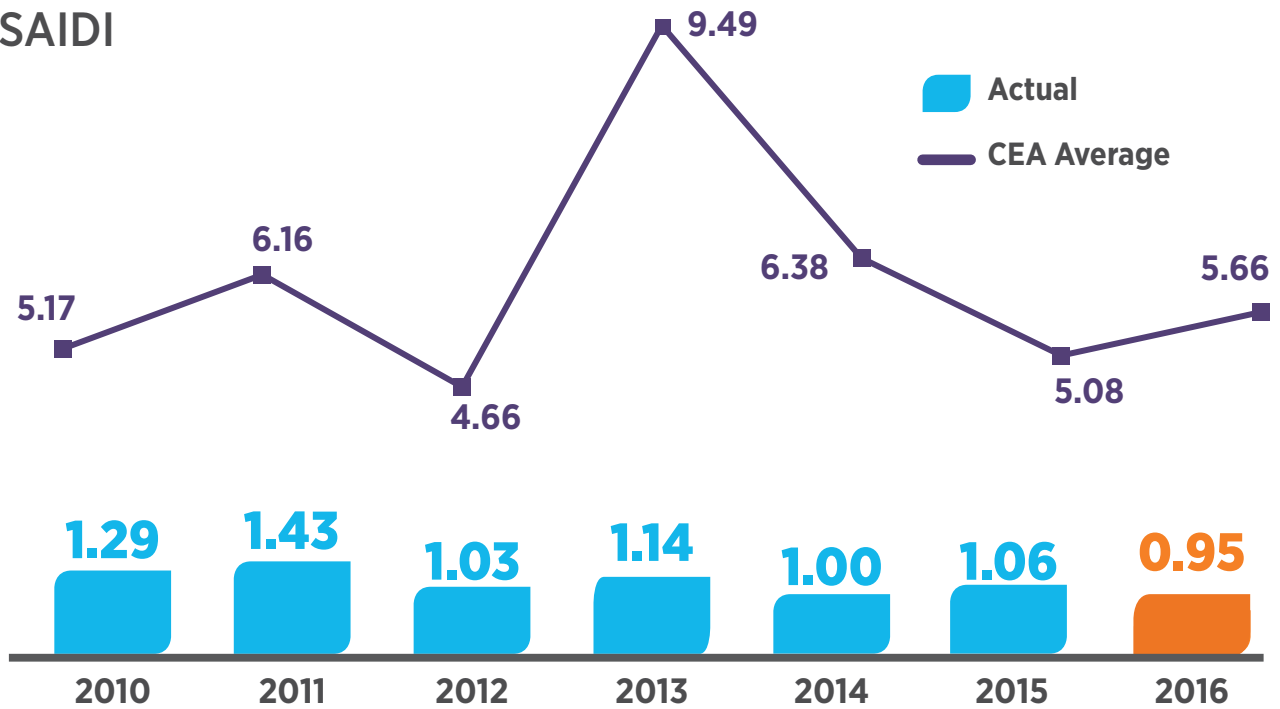
G4-EU29

## Reliability

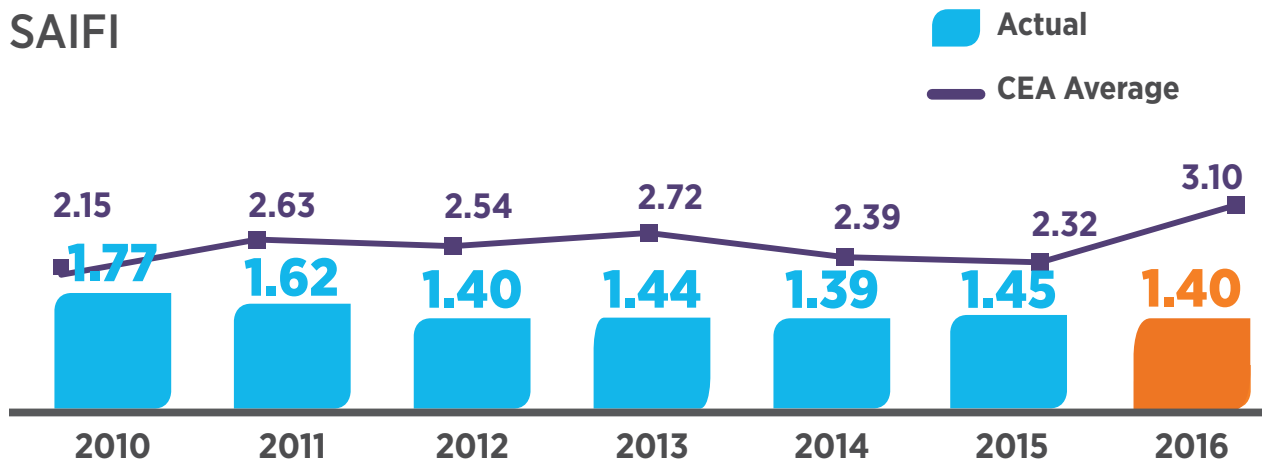
Toronto Hydro evaluates service reliability through two main measures: duration and frequency of outages. System Average Interruption Duration Index (SAIDI) is a measure of the annual average duration of outages for customers (in hours). System Average Interruption Frequency Index (SAIFI) is a measure of the frequency of interruptions.

In 2016 relative to 2015, Toronto Hydro saw a reduction in the average duration and frequency of outages. In fact, since 2010, the average number of service interruptions has improved by 21% and the average duration of interruptions is down by 26%. Toronto Hydro's average duration was more than five times lower than the national average (as reported by CEA) while Toronto Hydro's frequency of interruptions is less than half the national average (as reported by CEA).

### SAIDI



### SAIFI



## System Maintenance Program

Toronto Hydro is responsible for providing reliable service while mitigating environmental, safety and financial risks. A significant system maintenance program is in place to fulfill this responsibility. The program allows for the proactive identification and scheduled correction of deficiencies in distribution equipment before they lead to a failure. This reduces the likelihood of an incident occurring that may impact system reliability, worker or public safety or the environment (e.g. a spill). It also decreases the amount of money and natural resources required to purchase new equipment by ensuring existing equipment is used to its maximum lifespan.

Toronto Hydro performs inspections and maintenance activities on all of the Toronto Hydro owned electrical equipment located in substations, underground vaults, on-ground concrete pads, cable chambers, customer building vaults, and overhead lines across Toronto. In 2015 and 2016 combined, Toronto Hydro spent more than \$100 million on maintenance and inspection, corrective, and emergency programs. The inspections are a proactive measure used by Toronto Hydro for early identification and resolution of deficiencies.

The planned inspections and maintenance tasks are typically conducted on a fixed cycle, which is determined either per the OEB's Distribution System Code's Minimum Inspection Requirements or through the Toronto Hydro Reliability Centered Maintenance approach based on the mean time between failures of a given equipment class. Throughout the course of the planned inspection program, minor deficiencies are corrected immediately wherever possible, while deficiencies requiring more involved repairs are identified for follow-up work, which is executed through Corrective Maintenance Programs.

Due to the complexity of the system, inspections are performed using various techniques and tools. Through visual inspections, it is possible to identify deteriorating assets that are corroding, leaking, and have loose or broken components. To identify deficiencies that otherwise would not be detectable to the human eye while the equipment is energized, Toronto Hydro makes use of non-contact technologies such as infrared scanning and partial discharge detection. Additionally, advanced predictive technologies such as resistographs for measuring wood pole strength, and dissolved gas analysis for monitoring transformer health are also employed.

Along with the inspections, some equipment is maintained after de-energizing for cleaning, lubricating, tuning-up, and repairing or replacing worn out parts. Repairs made on equipment deficiencies prevent or prolong the need for a full asset replacement, which results in improved reliability and cost savings. Moreover, planned replacement of defective equipment limits customer outage duration, environmental hazards, and cost savings from not having to perform emergency repair.

Finally, Toronto Hydro also has an Emergency Maintenance program that entails 24/7 response to unplanned and urgent events involving Toronto Hydro's distribution system assets. Toronto Hydro operates within a dynamic, dense, urban environment where emergency response is required for a wide variety of reasons including, but not limited to, equipment failure, severe weather, power quality issues, motor vehicle accidents, equipment isolations, and requests from Toronto emergency services (i.e. police, fire, and ambulance). The demands on the Emergency Response Program can vary considerably from one year to the next due to the volume and impacts of significant system events and extreme weather.



## G4-EU10

### Planned capacity against projected electricity demand over the long-term

Toronto Hydro has a responsibility to provide safe and reliable electrical power to the residents of Toronto. In addition to the maintenance of the existing system, this requires planning to develop distribution infrastructure in support of future growth. Toronto is growing at a rapid pace with a projection of approximately 233,000 more people moving into the city between 2016 and 2020, according to the Ontario Ministry of Finance. The demand for electricity as a clean power source is also growing as demonstrated by the increased electrification of transportation (e.g. the Metrolinx Eglinton Crosstown Light Rail Transit, the Toronto-York Spadina Subway Extension and incentives for electric vehicles through the Province of Ontario). Finally, a single highrise building – the “vertical city” – can consume as much electricity as a small town. For example, one highrise building could have an electricity demand as high as 12 MW, while the City of Kenora had a peak demand of approximately 19 MW in 2016. Toronto Hydro makes plans taking all of these growing requirements into consideration and will fulfill its responsibilities to provide power to the residents of Toronto.

Toronto Hydro regularly forecasts peak electricity demand to ensure sufficient station capacity is available to meet long-term customer needs. This includes ensuring that new customers can be connected as required. These are important conditions of Toronto Hydro’s distribution license. When capacity or operational constraints are identified, Toronto Hydro makes the necessary upgrades to stations or facilities jointly-owned with Hydro One Networks Inc. (Hydro One).

Demand forecasting is a critical input into the regional planning process conducted with the IESO and Hydro One, as it helps ensure that the transmission system supplying Toronto Hydro stations meets current and future requirements.

Planning for the electricity system in Ontario occurs at three levels:

- **Bulk system planning** – issues that impact the system on a provincial level
- **Regional system planning** – issues on a more regional or localized level where IESO conducts planning exercise on a five-year cycle or as required
- **Distribution system planning** – issues on a more regional or localized level where Toronto Hydro conducts yearly assessments

Toronto Hydro conducts distribution system infrastructure planning, which includes local generation and CDM at the distribution level, and coordinates with Hydro One and the IESO on transmission supply facilities. New and enhanced transmission supply facilities are also coordinated for some stations.

## Regional planning

Toronto Hydro's Distribution System Plan reflects the needs and issues identified in four regional planning exercises:

### 1. Metro Toronto Regional Infrastructure Plan

- The Regional Infrastructure Plan provided a consolidated summary of needs and recommendations for Toronto over the near and mid-term (five to 10 years). This plan expanded on the Central Toronto Integrated Regional Resource Plan
- The near and mid-term needs were confirmed to be addressing capacity shortfalls at Runnymede, Horner and Copeland transformer stations. These needs have previously been identified and were being addressed by Toronto Hydro in cooperation with Hydro One

### 2. The Central Toronto Integrated Regional Resource Plan

- The IESO formally confirmed a long identified issue of capacity shortfalls in areas within central Toronto. As the issues had been identified prior to the formal report, plans and discussions to address the shortfalls and explore alternative solutions with the IESO and Hydro One were underway

### 3. Hydro One's Metro Toronto Northern Sub-region Needs Assessment

- The net demand forecast did not identify any station capacity issues within the study period
- No further action is recommended at this time
- The Metro Toronto Northern Sub-region Needs Assessments did not impact Toronto Hydro's Distribution System Plan

### 4. The Greater Toronto Area (GTA) North Western Sub-region Needs Assessment

- Transformer stations and transmission facilities in the sub-region have sufficient capacity to accommodate the expected load over the study period
- There is no impact to Toronto Hydro's Distribution System Plan as a result of the GTA North Western Sub-region Needs Assessment



## G4-DMA

# RESEARCH AND DEVELOPMENT

## Management approach to research and development activity

### ► Corresponding Toronto Hydro's Material Issue is Grid Investment

Toronto Hydro does not perform research and development work directly, but does support innovation by participating in pilot projects that test available technologies for system automation, demand response, protection, energy storage and electric vehicles.

Research and development pilot projects are selected based on technologies and/or processes that can provide near-term grid benefits, including load balancing, extended asset lifetime and improved power quality. These projects can result in economic benefits for the customer through cost avoidance and environmental benefits by reducing the amount of generation capacity required to meet electricity requirements of the city. The selection criteria also consider the internal resources required to complete the various projects.

Toronto Hydro collaborates with, among others, developers, government, MaRS Discovery District, and Ryerson University's Centre for Urban Energy (CUE), to assess what technologies or processes have applications for the distribution grid assets and customer needs.

### HYDROSTOR PROJECT

Toronto Hydro has worked with the technology company Hydrostor, as well as a consortium of government, academic and engineering organizations to develop the Underwater Compressed Air Energy Storage ("UWCAES"). Energy storage systems are designed to store electricity during off-peak hours when demand is low and electricity is cheapest. Electricity can be generated during times of high demand or during short-term power outages. The Hydrostor system, located approximately three kilometres offshore from Toronto Island, efficiently converts electrical energy to compressed air. This air is then sent to a series of flexible accumulators located 55 metres below the surface of Lake Ontario. When energy is required, the weight of the water pushes air back to the surface where the system directs it through an expander, driving a generator, thus supplying energy to the grid and completing the storage cycle. The system's mechanical plant and control centre are located on Toronto Island next to Toronto Hydro's municipal station (Island MS). The UWCAES technology offers storage with minimal environmental impact and can be expanded with additional accumulators underwater as needed. The system provides a peak capacity of 660 kW for approximately one hour. The system is undergoing upgrades and will be evaluated through 2017 for demand response, price arbitrage and other applications.



Examples of innovation projects are as follows:

### INTELLIGENT ENERGY STORAGE UNIT

Toronto Hydro has worked with the technology company Electrovaya, Ontario Centres of Excellence (OCE), Ryerson Centre for Urban Energy (CUE) and other government, academic and engineering organizations to develop an intelligent energy storage unit. This technology uses lithium ion battery technology to convert primarily surplus off-peak electrical energy to battery energy, and stores it for subsequent use during on-peak periods. The Electrovaya system is located in the heart of downtown Toronto on the Ryerson University campus and supports the CUE lab space. An intelligent inverter controller provides energy when required to manage peak loads at the building or provide emergency power. This modular lithium ion battery technology offers cost-effectiveness and capacity of large-centralized systems while providing the site with flexibility and scalability of small-decentralized systems. This system provides peak capacity of approximately 300 kW for up to four hours. The system has been evaluated over 2016 for demand response, price arbitrage, emergency power and power conditioning.

### COMMUNITY ENERGY STORAGE PROJECT

Toronto Hydro is constructing a battery energy storage system with the technology company eCAMION, Canada's Sustainable Development Technology Corporation program and Ontario's Smart Grid Fund. This project uses lithium ion battery technology to store off-peak electrical energy for subsequent use during on-peak periods. This system is located near Toronto Hydro's 500 Commissioners Street facility and will provide demand response, price arbitrage, emergency power and power conditioning. This system provides peak capacity of approximately 500kW for up to one hour and supports business continuity.

### POLE-MOUNTED ENERGY STORAGE

Toronto Hydro has also worked with Ryerson University and eCAMION to pilot a pole-mounted energy storage unit. Similar to the previous energy storage projects, the purpose of the unit is to store energy during off-peak hours and release the power as required. The initial results of the project have demonstrated that the unit can reduce the strain on the local transformer, potentially increasing the lifespan of the equipment. The pole-mounted unit is able to store the equivalent energy of approximately 2,100 smartphone batteries. An additional benefit of the unit is it does not have a physical footprint because it's attached to existing poles. Watch the video below for a showcase of the technology:





G4-DMA

# DEMAND-SIDE MANAGEMENT

## Management approach to demand-side management

► **Corresponding Toronto Hydro Material Issues: Conservation and Demand Management**

## IESO-Contracted Province-Wide Conservation and Demand Management (CDM) Programs

Toronto Hydro delivers numerous CDM programs to customers. The purpose of these programs is to reduce the peak demand and to reduce the costs and environmental impacts associated with new generation, transmission and distribution systems. This results in economic benefits to the customer and reduces the impact on the environment. A CDM target has been established by the OEB. Toronto Hydro tracks and reports progress against this CDM target to ensure programs are achieving the desired result.

### CDM Programs

In 2015 and 2016, Toronto Hydro delivered provincially-funded CDM programs to the following market segments:

- **Residential customers including low-income**
- **Business customers**
- **Industrial customers**

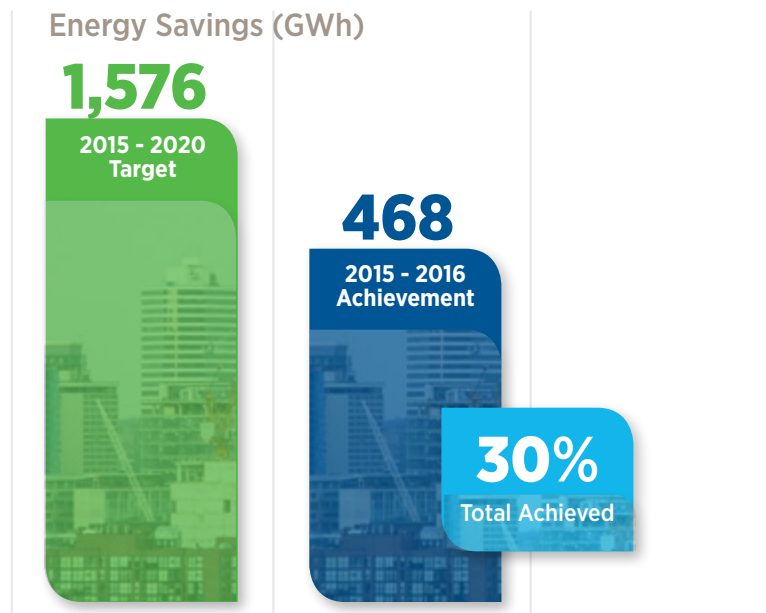
For more information about conservation programs, please visit [torontohydro.com/conservation](http://torontohydro.com/conservation)

### CDM Target

As a condition of Toronto Hydro's distribution license, CDM programs must be offered to customers. From 2015 to 2020, the OEB provided a target to reduce electricity consumption in the City of Toronto by 1,576 GWh.

For 2015 and 2016, Toronto Hydro has made significant progress towards achieving the CDM target by delivering 468 GWh of CDM savings which accounts for 30% of the total 2020 target.

For 2015 and 2016, the gigawatt-hour savings represented a greenhouse gas emissions reduction of 19,188 tonnes of carbon dioxide equivalent emissions or the equivalent electricity use of approximately 48,846 homes.





## Assisting low-income customers

Toronto Hydro recognizes the importance of delivering programs to assist this vulnerable segment of the customer base. These programs exist to help ensure that low income customers have access to electricity.



### The Low-Income Energy Assistance Program (LEAP)

is a year-round program developed by the OEB to assist low-income customers with their energy bill payments. Toronto Hydro funds LEAP through electricity rates. The program provides a one-time grant of up to \$500 (per year) to eligible customers having difficulty paying past due electricity bills. It's not intended to provide regular or ongoing bill payment assistance. In 2016, 1,726 customers received LEAP funding, which was an increase from the 1,334 customers who received funding in 2015.

**The Home Assistance Program (HAP)** is funded by the IESO and assists homeowners and tenants with managing their energy costs through complimentary energy-efficient retrofits in their homes, such as specific energy-efficient refrigerators, chest freezers, light bulbs, power bars, etc. The goal of the program is to help low-income customers who are unable to pay for the upfront costs of energy-efficiency upgrades. The number of customers who participated in the HAP program decreased from 3,841 customer in 2015 to 1,109 customers in 2016. This reduction in participation was due to a shift in focus from social housing participants to individual participants. The majority of the social housing potential was captured in previous years. Individual homes take more time to complete. However, on average these individual homes yield significantly higher savings per project.



**The Joint Home Assistance Program/ Home Winterization Pilot** launched in Q4 2016 in collaboration with Enbridge Gas Distribution. The objective of the pilot is to demonstrate cost-savings opportunities through the use of a single organization to deliver the program and to improve the customer experience by offering a streamlined program experience to customers. Customers who contact the program delivery agent are now screened for both programs and benefit from a single audit visit rather than two separate interruptions. As both programs complement each other well, new marketing material was developed to showcase the benefits of each, as one cohesive customer-facing program.



**An Embedded Community Outreach Coordinator** has been located at a social housing agency weekly since March 2016 to promote Toronto Hydro's residential programs and services. Information on the LEAP is also provided to customers who are on modest income(s) and/or in arrears. Assistance is also provided to customers who qualify for the HAP. This successful initiative has helped build customer trust, increased program awareness, and strengthened relationships with both partner agencies and customers.



Customers are made aware of available programs through annual bill inserts, disconnection notices, and through conversations with Customer Service Representatives in the Call Centre or Collections.

Toronto Hydro also promotes the LEAP and HAP programs to low income customers through in person presentations at targeted events.

## Giving back to the community

In addition to the CDM programs and programs for low-income customers, Toronto Hydro contributes to the community and also encourages employees to do so through involvement with community service and charitable and professional organizations. For example, Toronto Hydro and its employees have helped make Toronto’s communities safer and more energy-efficient through the Brighter Nights™ program and proudly raised money for United Way and Sunnybrook Hospital’s Ross Tilley Burn Centre.

### Sunnybrook Hospital’s Ross Tilley Burn Centre

Electrical burns are a workplace hazard for powerline workers in the electrical industry. That’s why Toronto Hydro began a partnership with the Ross Tilley Burn Centre at Sunnybrook Hospital.

The Ross Tilley Burn Centre is Canada’s biggest and most advanced burn treatment centre and, according to Sunnybrook Hospital, is the only adult burn centre in Canada with verification by the American Burn Association. Any powerline worker in Ontario that experiences a serious electrical burn can be admitted and treated at the burn centre.

One of the biggest challenges in treating burn victims is the process of transplanting and grafting skin to replace the skin destroyed by a burn. Researchers at the Ross Tilley Burn Centre are developing a revolutionary new stem cell technology to grow new skin that holds promise to significantly increase the survival rate and aid the recovery of patients who have suffered serious electrical burns. Toronto Hydro is a strong supporter of the Ross Tilley Burn Centre because of the specialized treatment it makes available to all powerline workers in Ontario, whenever and wherever it’s needed.

In 2016, Toronto Hydro hosted its third annual charity golf tournament, raising \$800,000 through partners and sponsors in support of Sunnybrook’s Ross Tilley Burn Centre – for a total of \$1.8 million raised since 2014.



### United Way employee campaign

Toronto Hydro supports United Way Toronto through an annual

employee fundraising campaign. In 2016, employees raised more than \$144,000 for United Way Toronto and York Region and Toronto Hydro was recognized with a 2016 United Way Spirit Award in recognition of the employee campaign. In September, a group of Toronto Hydro employees from United Way’s GenNext group participated in ACCES Employment’s Speed Mentoring event with newcomers to Canada.





## Brighter Nights™

For the first time in 2016, Toronto Fire Services joined the efforts at two Brighter Nights™ community events, promoting neighbourhood safety, and fire awareness and prevention. Participants replaced nearly 500 old, burnt out or inefficient porch lights with more energy-efficient bulbs, encouraging residents to leave the porch lights on overnight, helping make the community safer. The program is a joint effort with the City of Toronto's Community Crisis Response Program, Toronto Community Housing, Toronto Police Service and local volunteers.

## Annual Tree Planting Event

An annual Tree Planting Event with the non-profit organization, Local Enhancement & Appreciation of Forests (LEAF), was held to engage employees in this important cause. Since 2015, Toronto Hydro employees, along with their friends and families, planted more than 630 trees and shrubs in parks throughout Toronto. Since 2004, nearly 4,000 trees have been planted across the city through this partnership.



## Protecting Toronto's tree canopy

Trees help conserve energy by providing shade and reducing air conditioning demands. They naturally clean the air by absorbing carbon dioxide and help prevent erosion and excess water run-off, protecting electrical equipment. Toronto Hydro is committed to preserving Toronto's tree canopy as trees help customers manage their electricity bills and collectively reduce the city's emissions.

Toronto Hydro takes extra effort to protect the roots of trees. When constructing new underground plant near trees within the public road allowance, Toronto Hydro uses a construction method called tree tunneling. This construction method allows work under, around and against the trees to be done without harming their roots.

A Tree Protection Zone (TPZ) under the drip line of the tree is first established based on the trunk diameter (taken at 1.4 metres above the ground). Larger trees require a larger TPZ. Plywood or plastic web snow fencing is used to designate individual TPZ limits. No root cutting is permitted within the TPZ. Any roots located outside the TPZ that need to be pruned must first be exposed by hand digging or by using a low pressure hydro vacuum method to avoid damaging the root bark. An arborist or tree professional is required to do any large root pruning. Backfill material in tunnels is limited to "boulevard mix," which ensures that replacement soils are flowable and are able to consolidate under their own weight in order to provide optimum root growth and avoid settlement.

Tree tunneling is carried out using vacuum excavation methods that use pressurized water and an industrial strength vacuum to simultaneously excavate and evacuate soil. As hydro excavation safely breaks up soil, the soil and water slurry is conveyed by vacuum to a debris tank. Horizontal tunnels can be safely dug using this method for up to 9 metres in length underground. This procedure is in full accordance with the City of Toronto's Tree Protection Policy & Specifications for Construction near Trees.

## Safety Around Fallen Hydro Poles

Toronto Hydro is committed to the safety and well-being of all city residents. Each year, the company works to help lower the risk of incidents involving electrical infrastructure. In 2016, Toronto Hydro, together with Toronto Fire Services (TFS), held a demonstration event to educate members of the public about how to respond if electrical wires fall on top of a vehicle. A mock collision scene was created using a practice car provided by TFS, along with a hydro pole, complete with wires, which were placed on the hood of the car to provide the effect of a collision. The event demonstrated the proper steps to take in this type of emergency and how to safely evacuate in the event that the downed wires cause a fire. For this initiative, Toronto Hydro won the Electrical Safety Authority's Powerline Safety award in 2016.

## Strategic Sponsorships

Toronto Hydro is committed to helping make Toronto a vibrant and healthy world-class city. Through strategic sponsorships, Toronto Hydro can make a positive and lasting impact for communities across the city. These sponsorships provide an opportunity for Toronto Hydro to be visible and accessible in the community. Toronto Hydro uses these outreach opportunities to communicate key messages including conservation, emergency preparedness and safety. Last year, Toronto Hydro invested more than \$160,000 in a variety of causes that support the social, environmental and economic prosperity of Toronto, including:

### Industry Organizations and Associations

- TREC Education – Kids World of Energy Festival
- Energy Storage Association – Energy Storage in Canada
- Sustainable Buildings Canada – Sustainable Built Environment
- Toronto 2016 Conference of the Americas

### Environmental

- LEAF – Backyard Tree Planting, Leslieville Tree Festival
- FLAP (Fatal Light Awareness Program)
- City of Toronto – Live Green

### Community

- City of Toronto – Cavalcade of Lights
- Toronto Humane Society – PAWS in the Park
- Starlight Children's Foundation – Third Annual Tea & Tiaras Sponsorship
- Lakeshore Mardi Gras – Silver Sponsorship
- Leslieville BIA – Wanderlust
- Toronto Fire Services, City of Toronto, Toronto Community Housing, Toronto Police – Brighter Nights

## G4-16

## Association memberships

In addition to investing in the causes listed on the previous two pages, Toronto Hydro encourages employees to take an active role in recognized industry associations, government agencies, advisory groups and coalitions to help ensure that the best interests of Toronto Hydro and customers are advanced to government, consumer groups and other interested parties. The Code of Business Conduct and Whistleblower Procedure also encourages employees to contribute to communities through involvement in professional organizations. Toronto Hydro is an active and contributing member of the following associations:

- Association of Electrical Utility Safety Professionals
- Board of Canadian Registered Safety Professionals
- Building Owners and Managers Association
- Canadian Electricity Association
- Canadian Manufacturers and Exporters
- Canadian Standards Association
- Canadian Solar Industry Association (Technical Committee)
- Centre for Energy Advancement through Technical Innovation
- Electrical Safety Authority – Utility Advisory Council
- Independent Electricity System Operator Working Groups
- Infrastructure Health and Safety Association Board
- International Electrotechnical Commission
- North Atlantic Mutual Assistance Group
- Northeast Power Coordinating Council Inc.
- Ontario College of Trades
- Ontario Energy Network
- Ontario Energy Storage Alliance
- Toronto Public Utilities Coordinating Committee
- Utilities Standards Forum



G4-EU28

G4-EU29

G4-DMA

## DISASTER/EMERGENCY PLANNING AND RESPONSE

► Corresponds with Toronto Hydro's Material Issue: Emergency Preparedness and Response

### Management approach to disaster planning

Toronto is home to some of Canada's largest financial institutions, government agencies, hospitals, transportation hubs and water distribution and treatment facilities. During emergencies, Toronto Hydro has a responsibility to respond quickly and efficiently to help get the city back up and running as soon and as safely as possible. As such, Toronto Hydro has developed emergency response plans with emergency roles and responsibilities clearly identified for specific employees. Emergency response drills are conducted to ensure employees are prepared in the event of an actual emergency. In addition, Toronto Hydro work centres and radio towers have standby power systems available to ensure the critical infrastructure required to restore power are operational in an emergency.

Toronto Hydro is mandated by the IESO to prioritize restoration efforts during emergencies as follows:

- 1. Critical loads** – related to preservation of the bulk system and dictated by the IESO including telecommunications, generation stations, and transmission facilities.
- 2. Priority loads** - Essential services related to the health and safety of Torontonians, which include services like water treatment facilities, hospitals and emergency responders such as police, fire and ambulance.
- 3. Highest number of customers in the shortest period of time** – Large feeders followed by lateral feeders, followed by single service connection.



Watch our power restoration video to learn more at [youtube.com/torontohydro](https://www.youtube.com/torontohydro)



## Grid Emergency Management

In recent years, there have been a number of major events that have drawn attention to the emergency preparedness and response practices of electricity distribution utilities. Occurrences include both unplanned incidents (Hurricane Sandy in October 2012, the July 2013 flash flood in west Toronto and the December 2013 ice storm) and planned events (the 2010 G20 Summit and the 2015 Pan Am Games).

In response, Toronto Hydro developed a formal Grid Emergency Management program in 2014. The objective of this program is to evaluate best practice for emergency readiness and emergency response, identify gaps in current practices, and address those identified gaps in a programmatic manner.

In 2016, the Grid Emergency Management program achieved the following:

- Published new emergency management plans
- Rostered staff into key emergency roles
- Conducted seminars, training and table-top exercises with Senior Management to familiarize them with roles and the organizational approach to emergency management
- Engaged front line staff to inform them of the new plans and processes
- Developed new tools to support incident management teams

In addition, Toronto Hydro remains committed to maintaining a strong corporate governance structure at the executive and senior management levels through an all-hazard emergency management system that includes detailed policies, plans, training and exercises. In 2016, Toronto Hydro refined its business continuity program with a particular focus on IT and disaster recovery planning to respond to cyber and data breach threats.



## OUR CITY

### MUTUAL AID

Through membership in the CEA Mutual Aid Working Group (CanMAG) and the North Atlantic Mutual Assistance Group (NAMAG), Toronto Hydro has cultivated relationships with a large number of utilities from across Canada and the northeastern United States in order to help ensure additional resources can be brought in from other areas to support restoration efforts during a major storm. In CanMAG, Toronto Hydro has taken a leadership role in developing the capabilities of the working group, including organizing and hosting a meeting in Toronto in the fall of 2016.

Ultimately, through a long-term sustained effort, Toronto Hydro aims to improve the ability to efficiently and effectively respond to and recover from major grid disruption events, and to do so while providing customers and the community with timely and accurate information.



### EMERGENCY PREPAREDNESS FOR CUSTOMERS

Emergency preparedness was identified as a top priority for customers through the stakeholder engagement process. In 2016, Toronto Hydro focused on encouraging customers to create an emergency preparedness kit. These activities took place through direct outreach campaigns via newsletters, brochures and community events, and public relations campaigns such as Emergency Preparedness Week, which attracted multiple media stories and live coverage on the Weather Network.

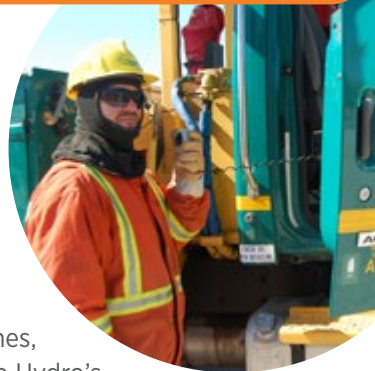


### RADIO UPGRADE PROJECT

Toronto Hydro established a project in 2016 to upgrade the two-way radio system used by employees. The radio system includes emergency generators at the radio towers. These generators and the upgraded radio infrastructure allow Toronto Hydro to effectively communicate with crews even if all other telecommunication systems (land lines, cell phones, email) are not functioning. This improves Toronto Hydro's emergency response as communication is a critical component of a quick and efficient response to an emergency.

During emergencies, Toronto Hydro's Emergency Operations Centre is activated, and internal and external communications are coordinated centrally by a cross-functional team responsible for managing the emergency response.

Toronto Hydro also works with a broad base of municipal and provincial entities, as required, to provide regular updates and to coordinate response efforts. This includes the City of Toronto's Office of Emergency Management, IESO, Hydro One and the Ministry of Energy.



### COMMUNICATIONS CHANNELS FOR UNPLANNED OUTAGES

Toronto Hydro's communication protocols vary according to the severity of the event. Information is provided to customers about small scale, unplanned power interruptions through:

- Call centre's interactive voice response system
- Outage map on [torontohydro.com](http://torontohydro.com)
- Twitter
- Media

### EMERGENCY COMMUNICATIONS

During widespread outages, the volume and frequency of Toronto Hydro's communications increases. Toronto Hydro understands that during an emergency or disaster Toronto's citizens need to know the extent of the emergency and the estimated time to restore power so they can make informed decisions. To this end, Toronto Hydro exercises its responsibilities to communicate factually and frequently through:

- News conferences
- News releases
- Media interviews
- Twitter
- Facebook
- Call centre's interactive voice response system
- Website and outage map
- City councillors
- Email outage notifications

Internally, employees are kept up-to-date through:

- Digital signage across each Toronto Hydro location
- Email messages and memos
- Face-to-face meetings
- Intranet site
- Bulletins
- Telephones
- Two-way radios

## G4-12

# PROCUREMENT PRACTICES

► Corresponds with Toronto Hydro's Material Issue: Materials Selection and Usage

## Supply chain

Toronto Hydro extends its sustainability program to its vendors and contractors through the consideration of sustainability measures during the selection process. A dedicated team is responsible for facilitating the timely and cost-effective procurement of services, materials and equipment. This team is also responsible for maintaining the inventory to support uninterrupted work and managing material handling costs. Each year, Toronto Hydro procures, warehouses and distributes approximately \$80M to \$90M in assets, and executes an average of 200 contracts for the supply of goods and services.

Toronto Hydro manages the supply chain by sourcing reputable suppliers, monitoring their performance to ensure that they meet their contractual obligations, and generating the purchase orders that underlie each agreement. Additionally, Toronto Hydro has competitive bidding generation and evaluation processes, and conducts market benchmarking to identify emerging trends and suitable suppliers.

Suppliers range from:

- Manufacturers that sell materials directly to Toronto Hydro
- Distributors that provide materials from various manufacturers
- Service providers that offer professional services for communications, legal, human resources, facilities maintenance, engineering, and financial divisions
- Contractors who provide various construction and electrical distribution services to complete the capital and maintenance programs

A large component of the supply chain is related to procuring electrical materials and contractor services to complete capital construction. Most manufacturers in the industry sell or make their products available through distributors and do not deal directly with utilities.

In some situations, design and construction services are outsourced to secure additional flexible resources to execute the work program, the magnitude of which may fluctuate from year to year.

Each business unit is responsible for monitoring and managing the suppliers under the framework of the negotiated contract. Supplier scorecards, key performance indicators, and regular interval meetings are used to manage vendors delivering goods and services. Quality of the goods and services delivered are monitored through internal groups or external contractors hired to perform quality audits of the services rendered.



### G4-DMA

# SUPPLIER ASSESSMENT FOR LABOUR PRACTICES

## Management approach to supplier assessment for labour practices

### ► Corresponds with Toronto Hydro's Material Issue: Materials Selection and Usage

Toronto Hydro works to ensure that suppliers share the same values and labour practices and require them to abide by any and all applicable laws.

A competitive bidding process for the selection and screening of vendors is an integral part of the Toronto Hydro Procurement Policy and central to Toronto Hydro's commitment to fair operating practices in the supply chain. In accordance with ISO 26000:2010, Toronto Hydro's request for proposal (RFP) process was updated to include the consideration of human rights, sustainability, and rules concerning conflict of interest and non-collusion. In addition, the bidding process evaluates health and safety compliance and ability to adhere to Toronto Hydro's workplace policies and procedures.

There's also a vendor management program to monitor the performance of selected suppliers on a number of key indicators, such as delivery, quality, price, service and sustainability. The sustainability metric specifically rates vendors on ethics and governance, environmental performance, and business continuity. A sustainability assessment for 10 of Toronto Hydro's largest suppliers is also conducted with follow up and monitoring of performance through meetings held twice a year.

## Contractor qualification and ongoing management

Most contractors are qualified for conformance with Toronto Hydro's safety standards and legislated safety programs using an external service. Insurance requirements, workers compensation, and safety performance statistics are also verified and monitored on an ongoing basis.

Contractor performance is graded and the results are shared with the contractors to help them understand their strengths and their opportunities for improvement.

The qualification service aids Toronto Hydro in communicating with contractors and helps ensure that contractors acknowledge they have reviewed key documents, including Occupational Health and Safety Policy (Appendix A), Environmental Policy (Appendix B), Workplace Violence and Harassment Policies, and the Code of Business Conduct and Whistleblower Procedure.

**G4-LA14**

## Screening suppliers

Most new suppliers are subject to a competitive bidding process that includes labour practices criteria. To help ensure that suppliers are following responsible labour practices, Toronto Hydro evaluates their corporate policies and procedures, and often performs more detailed assessments with regard to the supplier's location or in absence of requested documentation.

**G4-EN32 ... G4-DMA**

## Supplier environmental assessment

► **Corresponds with Toronto Hydro's Material Aspect: Material Selection and Usage**

To promote sustainability along the supply chain, most suppliers must complete Toronto Hydro's environmental assessment (as part of the RFP process). This requires:

- Information about recycling programs, sustainability programs, and environmentally-friendly products and packaging
- Commitment to continual improvement of supplier's sustainability initiatives
- Information about the organization's ethics and governance





**WORKING WITH MANUFACTURERS TO REDUCE WASTE**

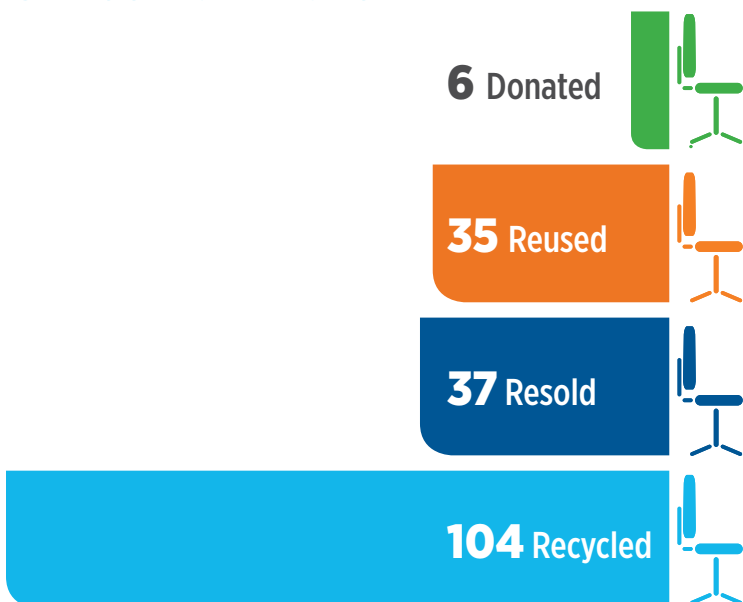
**Pole tops, submersibles and padmount transformers** – The manufacturers of pole top, submersible and padmount transformers accept the return of decommissioned units. Toronto Hydro receives a return value for the units and the manufacturer refurbishes and reuses key components thereby increasing the lifecycle of these assets and further minimizing environmental impacts.

**Network protectors** – The manufacturer of network protectors refurbishes components from decommissioned units that are still operational. They provide Toronto Hydro with the opportunity to buy back the restored units with full warranty at a lower price. This provides an economic benefit to the customer through reduced costs for equipment and an environmental benefit through the reduction of natural resources required to manufacture equipment.

**Cable and Wire** – Short lengths of cable and wire that are not required for capital work are returned to Toronto Hydro work centres to be recycled. This, too, helps reduce costs to the customer as the recovered cable and wire can be sold while reducing environmental impacts through the recognized benefits of recycling.

**Office furniture** – Over the course of 2015 and 2016, Toronto Hydro made preparations to move operations from two leased work centres into renovated facilities owned by Toronto Hydro. The office furniture that was no longer needed as a result of the moves presented a potential waste stream. Toronto Hydro made arrangements such that 71% of the waste office furniture was diverted from landfill. The following table shows the methods used to divert the waste.

**Diversion of Waste Office Furniture**



Diversion method measured in Tonnes

**Using local suppliers**

The majority of Toronto Hydro’s contracts are awarded to vendors within Ontario and the Greater Toronto Area, as outlined below.

- 98.2% of total dollars spent were on Canadian goods and services
- 96.2% of the budget was spent on goods and services within the province of Ontario
- 87% of total dollars spent were on goods and services from Toronto and the GTA

## G4-DMA

# CUSTOMER SAFETY

## Management approach to customer health and safety

### ► Corresponds with Toronto Hydro's Material Aspect: Public Safety

Public safety has been identified as one of Toronto Hydro's top 10 corporate risks and as such, is rigorously monitored through the Enterprise Risk Management (ERM) framework and evaluated at all levels of management, including the Board of Directors. Toronto Hydro's ERM system defines, measures, analyzes and controls the top public safety risk exposures. This framework considers the various safety hazards which include:

- Wires down
- Fire and explosions
- Low wires
- Tree canopy contact
- Vehicle collisions
- Leaning and falling poles
- Contact voltage

Toronto Hydro manages these risks by establishing improvement targets, and monitoring risk mitigation strategies to ensure that desired results are achieved.

Toronto Hydro mitigates risks to customer safety through equipment inspection, replacement and maintenance, employee training, communications programs and reactive and emergency work. This multi-pronged approach allows identification, communication and mitigation of risks to public safety. Much of this work is manifested through the overhead circuit renewal and box construction programs, wood pole inspection and treatment program, and through day-to-day customer communications. Additionally, a vegetation management program is in place to reduce the likelihood of tree canopy contact.

Toronto Hydro also continues to use a mobile voltage tracker service to conduct frequent scans on streets across Toronto to mitigate risks of contact voltage.

## Improving equipment standards to reduce safety risks

Toronto Hydro has developed specific construction standards and design practices. New products for use in the distribution system also go through a thorough review and introduction process. The selection process for new products and the development of standards promotes customer health and safety and environmental benefits by mandating the use of approved components and practices.



### Complying with Provincial Safety Regulations

Toronto Hydro must comply with the Electrical Distribution Safety requirements set out in Ontario Regulation 22/04. The regulation establishes safety requirements for the design, construction and maintenance of electrical distribution systems. To ensure compliance, Toronto Hydro is subject to an annual audit conducted by a third-party approved by the Electrical Safety Authority (ESA). The purpose of the audit is to:

- Assess adherence to Sections 4 to 8 of Ontario Regulation 22/04
- Evaluate the appropriateness of processes to comply with the safety standards set out in the regulation
- Determine if Toronto Hydro follows its internal processes

Toronto Hydro must submit an annual Declaration of Compliance to the Electrical Safety Authority certifying compliance with sections 3, 9, 10, 11 and 12 of Ontario Regulation 22/04.

In 2015 and 2016, Toronto Hydro successfully completed both the Audit and Declaration of Compliance and for the third and fourth consecutive years, Toronto Hydro achieved full compliance (without any findings of non-compliance or areas in need of improvement). Action plans were developed to address some general observations that surfaced during the audit, underscoring the culture of continual improvement at Toronto Hydro.

### ESA Inspections

The ESA conducts periodic due diligence inspections on recently completed construction projects. The objective of these inspections is to ensure that Toronto Hydro's construction sites have been left in a safe manner and that work has been completed in accordance with the corresponding plan, work instruction and design standards. In 2015 and 2016, the ESA conducted 11 due diligence inspections and Toronto Hydro was compliant with Ontario's regulations in all cases.

#### G4-PR2

### Addressing safety concerns from the ESA

The ESA conducts random inspections on Toronto Hydro's electrical infrastructure across the city. If an inspection raises a potential safety concern, the ESA will issue a formal letter with a required date of response.

In 2015 and 2016, Toronto Hydro resolved 40 potential safety concerns raised by the ESA within the prescribed timelines. Concerns varied in nature and included situations like a fallen tree resting on secondary conductors and a rotting pole.

## G4-DMA

## Management approach to marketing communications

### ► Corresponds with Toronto Hydro's Material Issue Responsible Communications and Education

Toronto Hydro aims to deliver marketing communications to customers in a manner that is timely, transparent and legally compliant. The communications programs advise customers about important information, including: rate changes, CDM programs, emergency preparedness, public safety, capital construction and power outages.

Toronto Hydro communicates this information using the following channels:

- Customer newsletters (printed bill inserts and digital)
- Direct mail
- Bill messages
- Website
- Social media
- Email blasts
- News releases
- Purchased and earned media
- City councillor outreach
- Face-to-face interactions at retail and community outreach events

## Spreading the conservation message

Toronto Hydro continued to be one of the biggest contributors to the Ontario Ministry of Energy's (MOE) provincial CDM mandate through work with residential, small business, industrial and commercial customers to implement energy-efficiency projects. Refer to page 30 for more information on the results of the CDM programs offered by Toronto Hydro.

## Canada's Anti-Spam Legislation (CASL)

Toronto Hydro complies with the communications and marketing practices outlined in CASL. Extensive training was conducted with relevant personnel regarding CASL. Toronto Hydro monitors the Canadian Radio-television and Telecommunications Commission's enforcement of CASL and periodically reviews and updates internal procedures to ensure compliance. Any acute issues are dealt with in a prompt and thorough manner.



### Marketing activities

As a regulated entity, Toronto Hydro's marketing activities are generally limited to providing information to customers regarding available services and conservation programs. Toronto Hydro also educates customers on safety hazards related to electricity use. More information about safety education, including preparing for emergencies, can be found on the Toronto Hydro website at [torontohydro.com/safety](http://torontohydro.com/safety). Toronto Hydro's Conditions of Service describes its services, equipment and applicable safety legislation, and is posted on the Toronto Hydro website and communicated through bill messages and inserts.

The nature of direct customer communications, volume, and output of information that's provided to customers is regulated by the OEB through a combination of laws and other legal instruments, regular reporting requirements, compliance powers and quasi-judicial hearing processes. The OEB also has a consumer relations service, where customers who have questions or complaints can report them directly to the regulator (who will take action as appropriate).

Toronto Hydro measures the effectiveness of marketing and communications programs by commissioning market research via telephone surveys, online surveys and focus groups. Toronto Hydro also subscribes to a number of industry surveys including those conducted by JD Power, Simul and Canadian Electricity Association. Communications effectiveness are also monitored and tracked through media metrics, as well as online customer engagement metrics.

This research helps address specific requirements for customer feedback on topics like customer experience, reputation management, customer service, productivity and service reliability. Toronto Hydro communicates customer research findings and areas of opportunity across the company and reviews long-term marketing, communications and customer experience goals, establishes measurement processes and identifies strategies to achieve the goals and best practices.

#### G4-PR7

### Number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications

Toronto Hydro had one incident in 2016 caused by a third-party software malfunction related to electronic communications. This malfunction was identified and corrected proactively by Toronto Hydro. No complaints were received in relation to this incident.

## G4-DMA

## PROVISION OF INFORMATION

## Management approach to provision of information

► Corresponds with Toronto Hydro's Material Issue: Responsible Communication and Education

Toronto Hydro provides information in various languages and formats to ensure the information is accessible to people of a wide range of cultures and abilities.

Toronto is a culturally diverse city. According to Statistics Canada's 2016 Census, 44% of Toronto residents had a mother tongue other than English or French, and approximately 140 mother tongues have been identified in the Toronto census metropolitan area. Toronto Hydro recognizes that the customer base is culturally diverse and, consequently, important communications are translated into various languages.

Toronto Hydro has translated an Emergency Preparedness Kit into Chinese, Spanish, Somali, Tamil and Urdu to help educate a broader range of the customer base about the importance of emergency planning. An outage site has also been created [outages.torontohydro.com](http://outages.torontohydro.com) and is available in a variety of languages. The site aims to provide a one-stop-shop for information during major outages and emergencies.

In addition to translating communications materials, Toronto Hydro also advertises CDM programs in community papers and in multicultural media outlets across the city. Call Centre agents at Toronto Hydro also have access to an interpreter service to assist customers with language barriers.

Toronto Hydro is committed to complying with the Accessibility for Ontarians with Disabilities Act and have implemented a variety of tools to better serve customers with accessibility needs.

**WEBSITE** – A third-party, complimentary service called Essential Accessibility is available on the Toronto Hydro website and provides a suite of tools to help make the website more accessible. An energy management tool is also available in high contrast to aid with certain visual impairments.

**CALL CENTRE** – TTY service is available through the Call Centre for hearing impaired customers.

**BILLING** – Bills and bill inserts in accessible formats are provided for customers with visual impairments.

**ELECTRIC-POWERED LIFE SUPPORT REGISTRY** – Customers who depend on electrically-powered life support systems can be added to a registry so they're identified as needing alternate sources of power in cases of power outages. This registry is updated annually. Customers are informed of any power outages scheduled by Toronto Hydro so they can make alternate arrangements to have sufficient back-up power to support their equipment.

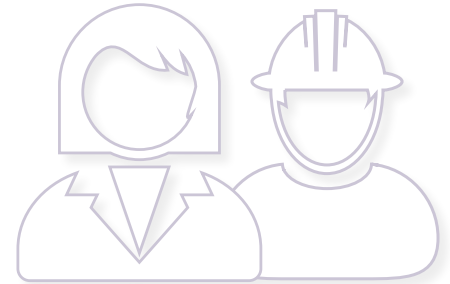
Toronto Hydro recognizes that there are still opportunities to improve the accessibility of customer service offerings and are continually making enhancements to better serve customers.







## OUR PEOPLE



## OUR PEOPLE

Recruiting and retaining talented staff members is vital to Toronto Hydro's success. Toronto Hydro has adopted a recruitment and selection policy to ensure hiring practices are fair for candidates. Full-time employees have comprehensive benefit packages, paid parental leave and tuition reimbursement. Safety and wellness are also of importance to Toronto Hydro, which is why emphasis is placed on wellness initiatives like Passport to Wellness. One of the greatest successes at Toronto Hydro was the completion of five million hours worked without having a lost-time injury between December 2014 and June 2016.

<b>Material Issue for Toronto Hydro:</b>	<b>Employee Attraction and Retention, Occupational Health, Safety and Wellness, Training and Education</b>
<b>Corresponding GRI G4 Aspects:</b>	Occupational Health and Safety, Training and Education, Employment
<b>GRI General Standard Disclosures:</b>	G4-10, G4-11, G4-14, G4-34, G4-40, G4-51, G4-57, G4-58
<b>GRI Specific Standard Indicators:</b>	LA1, LA2, EU15, LA5, LA9, LA11, HR4, LA13, SO4

**G4-DMA**

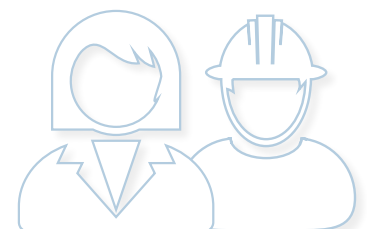
## Management approach to employment

► **Corresponds with Toronto Hydro’s Material Aspect: Employee Attraction and Retention**

Toronto Hydro Corporation operates one of the largest municipal electric utilities in Canada, and depends on a highly-skilled employee base and contractors to provide reliable service to the growing city.

Like other utilities in Ontario, Toronto Hydro is facing workforce attrition and in response to this, is actively recruiting new talent to replace these positions. Special attention is being given to the certified and skilled trades, and designated and technical professional positions. These jobs require a specialized skillset, which take years to acquire, in order to design, build and maintain the distribution system safely. Through varied apprenticeship programs, Toronto Hydro is working to ensure that seasoned trades professionals are able to transfer knowledge to the next generation of employees.

Toronto Hydro’s corporate culture and commitment to creating a positive work environment is central to the ability to attract and retain talent. This is accomplished by acknowledging and leveraging the similarities and differences of the employees; enabling people to perform individually and collectively to their full capability; and supporting an environment in which talent, contribution and professionalism is cultivated to the benefit of Toronto Hydro, employees and customers.



G4-10

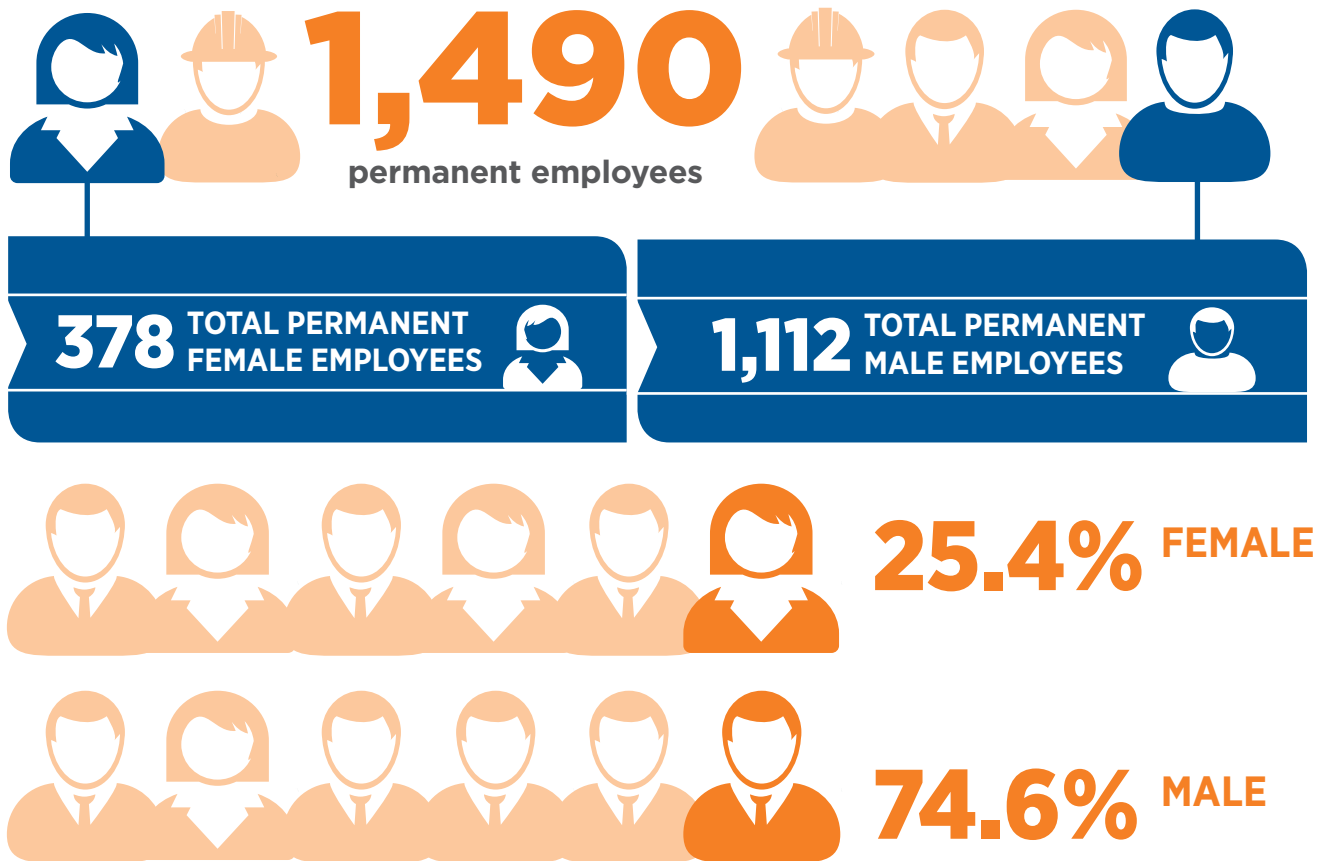
G4-11

G4-LA1

G4-LA3

## Overview of Toronto Hydro's Workforce

As at December 31, 2016, Toronto Hydro had





**175** TERM CONTRACT EMPLOYEES

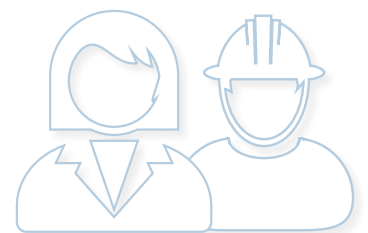
**61.1%** PERMANENT EMPLOYEES covered by collective bargaining agreements

**850** EMPLOYEES were members of bargaining units represented by the Power Workers' Union (PWU) and 61 engineers were represented by the Society of Energy Professionals



**299** NEW EMPLOYEES were hired over the course of 2015 and 2016

**155** EMPLOYEE DEPARTURES in 2015 and 2016 (data does not include retirements)



## Recruitment and selection

Toronto Hydro Corporation has adopted a recruitment and selection policy to ensure hiring practices are fair for internal and external candidates. The policy outlines high-level principles in support of the organization's recruitment philosophy, including:

- Selecting the most qualified candidate to fill each vacancy; including consideration of qualified internal applicants first
- Attracting candidates from a diverse applicant pool (representing the City of Toronto and Toronto Hydro's customers)
- The inclusion of provisions to address nepotism as it relates to recruitment and selection

Toronto Hydro uses a variety of practices to maintain a bias and barrier-free environment throughout the hiring of talent. This includes employing a broad range of internal and external advertising opportunities, the development of competency-based screening and selection criteria, and the inclusion of different methods for the assessment of candidate performance relative to the required identified competencies for the job.

### G4-LA2

## Employee benefits

To help Toronto Hydro attract and retain the top talent in the electricity industry, a competitive comprehensive benefits program is offered to full-time employees.

The benefits program provides the following coverage:

- Medical coverage, including vision care, prescription drugs, and paramedical services
- Dental coverage
- Disability income protection
- Life insurance
- Paid parental leave
- Gym membership reimbursement
- Tuition reimbursement
- Employee and family assistance services

Full-time employees participate in the Ontario Municipal Employees Retirement System pension plan, a multi-employer defined benefit pension plan. Under this plan, both Toronto Hydro and employees make equal contributions to the plan based on eligible pensionable earnings.

## Health and wellness

The key to a strong and productive workforce is a corporate culture that's focused on safety, health and wellness.



## G4-LA3

## Passport to Wellness

The Passport to Wellness Program was a company-wide wellness challenge to encourage healthy lifestyle choices. The program occurred between June and September of 2016 and challenged Toronto Hydro employees to make healthy lifestyle choices. Each month involved a different wellness challenge, with prizes available to increase participation. Engagement was strong with 529 employees accepting the challenge for at least one month of the program, and more than 20% of these employees completed at least one challenge every month.



### JUNE: PHYSICAL ACTIVITY

involved weekly challenges such as resistance training, stretching, or playing sports.



### JULY: EATING WELL

employees were challenged to avoid foods with added sugar, eat more colourful vegetables, and drink six to eight glasses of water every day.



### AUGUST: KNOW YOUR NUMBERS

employees were challenged to learn more about their health risk factors, as well as health promotion and disease prevention by completing online assessments or scheduling annual physicals with their doctors.



### SEPTEMBER: MENTAL HEALTH

employees were encouraged to spend time with friends and family, make time to recharge and de-stress at the end of each day, and document three good things about their day every day for a week.

The Passport to Wellness was well received by employees - one department even arranged a healthy potluck lunch to encourage the July challenge. The program successfully encouraged employees to experience the positive impacts from making healthy lifestyle choices.



## TRAINING AND EDUCATION

G4-LA9

G4-DMA

### Management approach to training, education and career development

► Corresponds with Toronto Hydro's Material Issue: Training and Education

Toronto Hydro believes in lifelong learning and cultivates an environment that fosters continual training and career development inside and outside of Toronto Hydro. Leadership courses, technical training, apprentice training and development opportunities are offered, tailored to individual job requirements. In 2016, more than 55,100 training hours were completed through more than 131 training programs.

At Toronto Hydro, employee safety is a core value. Toronto Hydro recognizes the responsibility to provide employees with the skills, equipment, materials, knowledge and leadership required to safely perform their jobs. As such, Toronto Hydro provides ongoing education and training to ensure employee competencies are kept up-to-date.

### Training

Toronto Hydro's leadership team recognizes it has a responsibility to ensure employees have the necessary tools to perform their jobs competently to protect themselves, co-workers and the public.

There are two key performance indicators related to training:

1

#### TRAINING COMPLIANCE

percentage of training delivered versus total planned

2

#### TRAINING DAYS

Average training days per employee

Toronto Hydro reports completion of training through dashboards that report the percentage of employees in compliance with each training program based on attendance, participant success rate and whether an attestation has been signed. Employee feedback is measured on training programs through high impact evaluations. Enhancements to training programs are continually considered, evaluated and implemented where possible.

Annual training programs are determined by:

- Recertification dates of existing training programs
- New training needs identified by the organization as a result of legislative changes, audits, incident investigations, and changes to internal practices, procedures and systems
- Introduction of new procedures, tools, or equipment

## Ministry accredited Trades School provides specialized training for apprentices

The Toronto Hydro apprenticeship programs are designed to provide apprentices with the knowledge, and hands-on experience required to succeed at Toronto Hydro. In 2008, Toronto Hydro received Training Delivery Agent status by the Ministry of Advanced Education and Skills Development (formerly known as the Ministry of Training Colleges and Universities) for the Power Line Technician Program. The apprentice curriculum at Toronto Hydro satisfies the in-school requirements dictated by the Ministry of Advanced Education and Skills Development, but also covers material specific to Toronto Hydro's distribution system.

Toronto Hydro invests approximately 4.5 to 6.5 years of training in each apprentice to prepare them to work competently and safely. Apprentices are instructed by journeyman trades professionals in a combination of settings, which include in-class, job simulation and field training. The following professional trades programs are certified through Toronto Hydro:

- Certified Power Line Persons (certified as powerline technicians)
- Certified Power Cable Persons
- Distribution System Technologists
- Metering Technicians
- Power System Controllers

Through 2015 and 2016, 37 apprentices completed the apprenticeship training program. There are currently 92 apprentices enrolled in the Toronto Hydro program, which will help offset the number of trades people set to retire over the coming years. In the next 10 years, Toronto Hydro expects more than 40% of the current work force to retire.

## Preparing professionals for advancement within the organization

In 2014, Toronto Hydro partnered with an external consultant group to design a professional development course for employees. The program is tailored to help professionals expand their careers at Toronto Hydro by seizing opportunities to advance their expertise within the organization. The course work is a mix of in-class material, interactive online modules and coaching sessions. The course has been completed by 97 professionals since it began.

## Fostering leadership

The Powerful Leadership Program assists supervisors and managers to develop leadership skills. The four month program consists of four courses containing 14 modules. The program uses interactive guidelines to explain how to effectively communicate and manage employees. It helps supervisors understand organizational goals, and ensures teams are aware of Toronto Hydro's strategic direction. Since the program launched in 2011, 176 current and future leaders have completed the program.

Over the last five years, 73% of leadership roles have been filled with internal candidates.

## Tuition reimbursement

The tuition reimbursement program encourages employees to upgrade professional skills and knowledge through accredited educational programs delivered by academic institutions. Employees who enrol in courses that are aligned with their role and the needs of the organization are eligible for financial support, which aligns with the goal of building a workforce committed to innovation and continual improvement.

When it comes to career progression, employee development and performance is measured through a formal performance management process. Employee performance expectations are linked to key performance indicators and Toronto Hydro's corporate scorecard. Managers establish performance expectations with employees and monitor and evaluate performance throughout the year. A robust individual performance management system has been established that values goal setting, continual feedback, technical and behavioural competency assessments and development planning. Formal opportunities for managers to discuss performance with employees occur throughout the year. In 2016, more than 99% of employees received a formal performance review.

### G4-LA11

## Breakdown of employees receiving regular performance reviews by employee category

Employee Category	Planned Contracts	Actual Contracts	Completion Rate
Management	1,067	1,064	99.7%
Engineers	100	100	100%
Bargaining Unit	820	818	99.8%

## G4-DMA

## OCCUPATIONAL HEALTH AND SAFETY

## Management approach to occupational health and safety

## ► Corresponds with Toronto Hydro's Material Issue: Occupational Health, Safety and Wellness

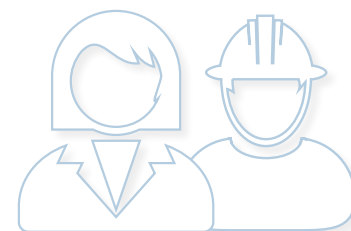
Toronto Hydro's management approach to occupational safety is to proactively identify hazards, quantify the risk associated with the hazards and eliminate or minimize the risk. Toronto Hydro recognizes it's essential to have a strong safety culture and for that to exist there are two essential ingredients: leadership and management systems.

Strong leadership is developed and nurtured through recruitment, education, training and performance management practices that encourage the application of corporate values, including safety. This is discussed in the management approach sections for employment and training, education and career development.

Toronto Hydro has demonstrated its commitment to safety by establishing and maintaining an occupational health and safety management system registered to OHSAS 18001:2007 since 2013 through annual independent third party audits.

The occupational health and safety management system is an integral part of a larger management system that also includes the environmental management system and is referred to as the environmental, health and safety management system (EHSMS). Integration of the two management systems enables efficiencies when managing related subjects (e.g. training, audits and inspections, emergency response, risk assessments, planning, etc.). The scope of the EHSMS includes all activities and operations associated with the distribution of electricity throughout the City of Toronto that can present an occupational health and safety hazard to Toronto Hydro employees or, potentially create an impact on the environment, and over which Toronto Hydro has control. This can include any department within the company, including core business services that may be contracted to an outside work-force.

The establishment and maintenance of the EHSMS demonstrates Toronto Hydro's commitment to the occupational safety and well being of staff, as well as concern for the environment. The EHSMS also provides a mechanism for early detection and mitigation of risks to achieve corporate health and safety and environmental performance objectives. The EHSMS is consistent with the risk management model adopted by Toronto Hydro under ISO 31000:2009, and aligns with other management systems that allow for proactive planning, monitoring, reporting and responding.



## Mechanisms for monitoring, reporting and taking corrective action

In order to maintain the EHSMS, respond to audits and identify and implement opportunities for improvement, Toronto Hydro uses a variety of tools that require the commitment from all staff, frontline to senior leaders and executives. This includes the Corporation’s Board of Directors, as the Board’s Human Resources and Environment Committee reviews occupational safety performance and issues on a quarterly basis. Below are some examples of processes that support the EHSMS:

### Audits and inspections

Periodic audits are conducted to ensure compliance and conformance with requirements, and verify that adequate controls are in place to mitigate identified risks. Proactive inspections of employees and work areas are conducted by leaders throughout the organization. These inspections are a leading indicator and allow for identification and correction of potentially harmful situations prior to an incident occurring. The following graph illustrates the number of proactive safety inspections Toronto Hydro leadership has completed since 2010

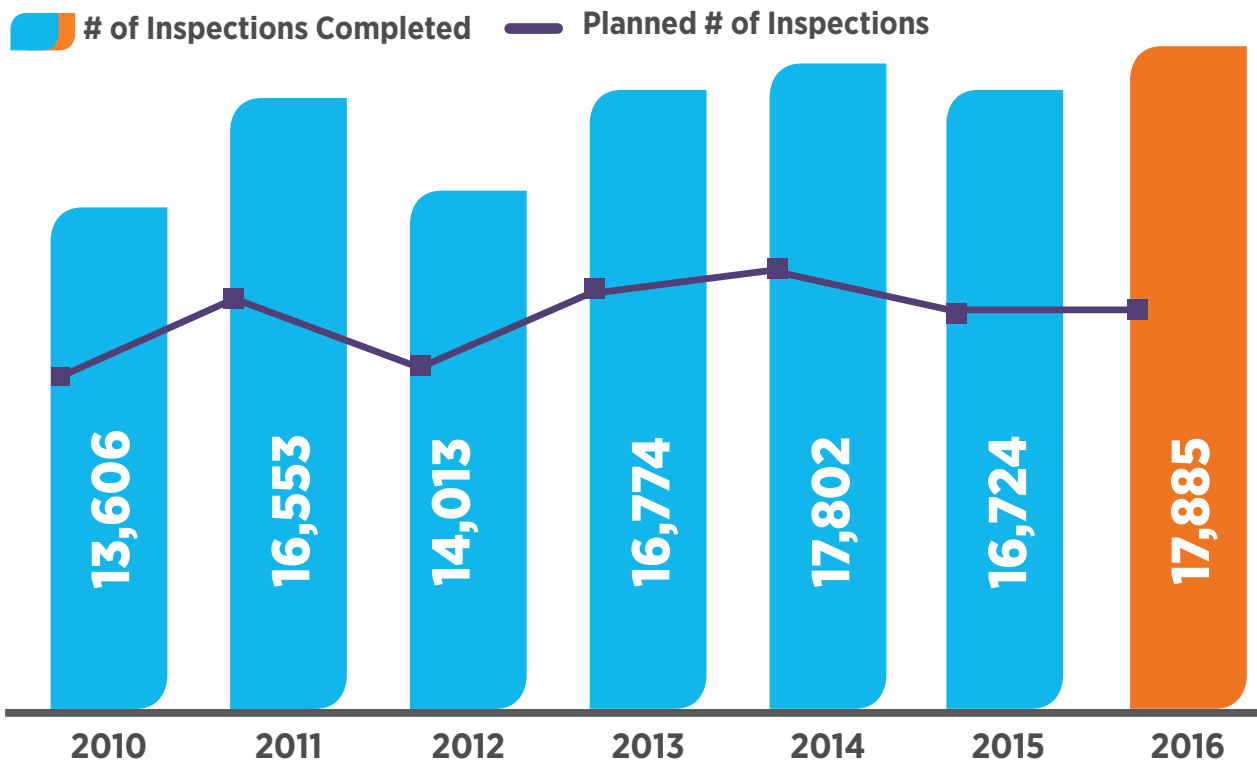
### Incident investigations

Investigations into near misses, occupational injuries and illness, motor vehicle accidents and environmental spills are conducted across the organization to determine root causes and implement permanent, corrective actions

### Performance indicators

A variety of leading and lagging performance indicators that gauge the effectiveness of the EHSMS are tracked and reported on to provide information to leaders to facilitate the implementation of corrective or preventive measures

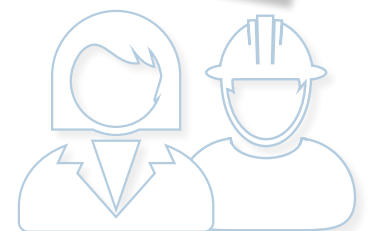
## PROACTIVE SAFETY INSPECTIONS



### Communications

A variety of venues, tools and media are employed to provide timely communications to all employees, management, and the Board of Directors. This includes:

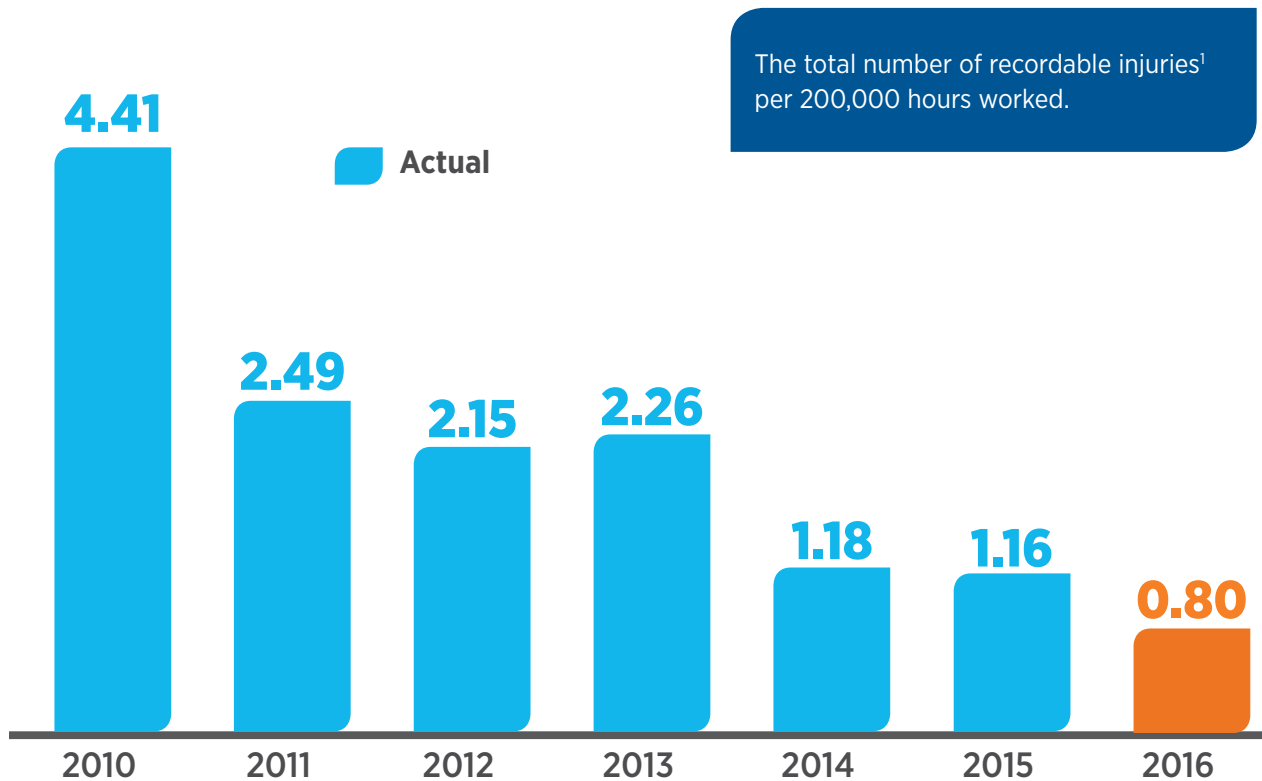
- **Safety meetings** held at the departmental or divisional level on a monthly or quarterly basis depending on the risks to the specific group. These meetings discuss a variety of issues including recent incidents and the corrective measures to prevent a recurrence
- **Customized monthly posters** developed internally highlight a specific theme that aligns with topics discussed at safety meetings. They reinforce preventative measures for identified high risks
- **Safety bulletins** specific to Toronto Hydro are issued, as needed, to alert employees of recently identified hazards and the corresponding protective measures required
- **Internal digital signage** at each Toronto Hydro location is used to communicate the above information and reinforce the messaging
- **Monthly Operational Status Review meetings** held at the departmental, divisional and corporate levels include the review of safety performance, risks and mitigations, and emerging issues
- **Quarterly Environment, Health and Safety reports** are provided to the Corporation’s Board of Director’s Human Resources and Environment Committee. This report includes occupational safety and environmental performance data and analysis, serious incident reviews that include the corrective actions implemented, the results of occupational health and safety audits and the corrective actions of the audit findings, identified risks and mitigations, and emerging issues





Corporate KPI:

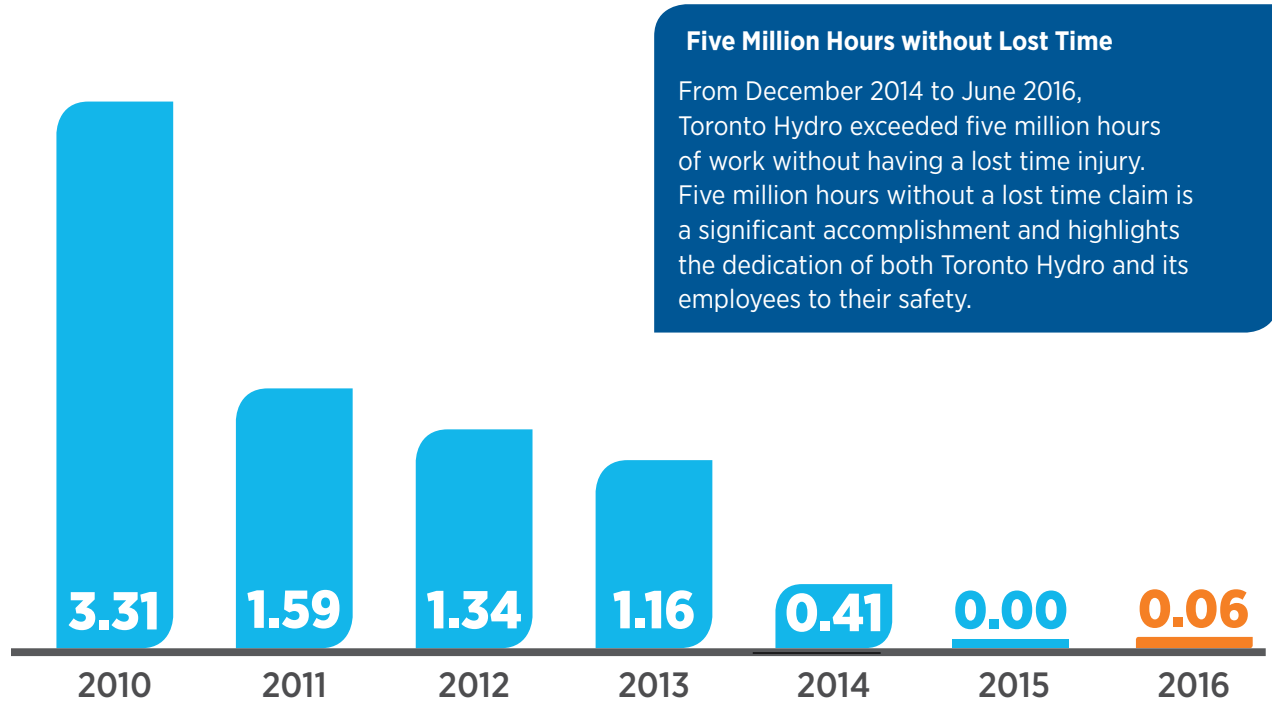
Total Recordable Injury Frequency Rate (TRIF)



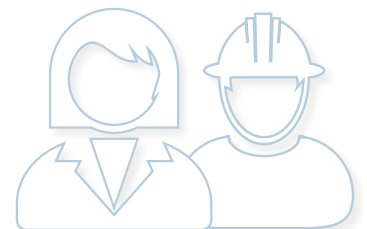
Since 2010, occupational injuries have been reduced by 82%. In addition to the TRIF rate, Toronto Hydro also measures injuries that result in employees missing work (lost time injuries) or being unable to complete the full requirements of the job (restricted work injuries). The following charts demonstrate the lost time severity (i.e. days lost per 200,000 hours worked) and frequency (i.e. lost time injuries per 200,000 hours worked), as well as the restricted work severity (i.e. restricted work days per 200,000 hours worked). All calculations are based on CEA standards for recording and measuring occupational injuries (CEA-A-2-2012).

<sup>1</sup>The CEA defines a recordable injury is defined as any occupational injury/illness that results in the employee experiencing: fatality, lost time, medical treatment and/or other (restricted work, significant occupational injury, loss of consciousness).

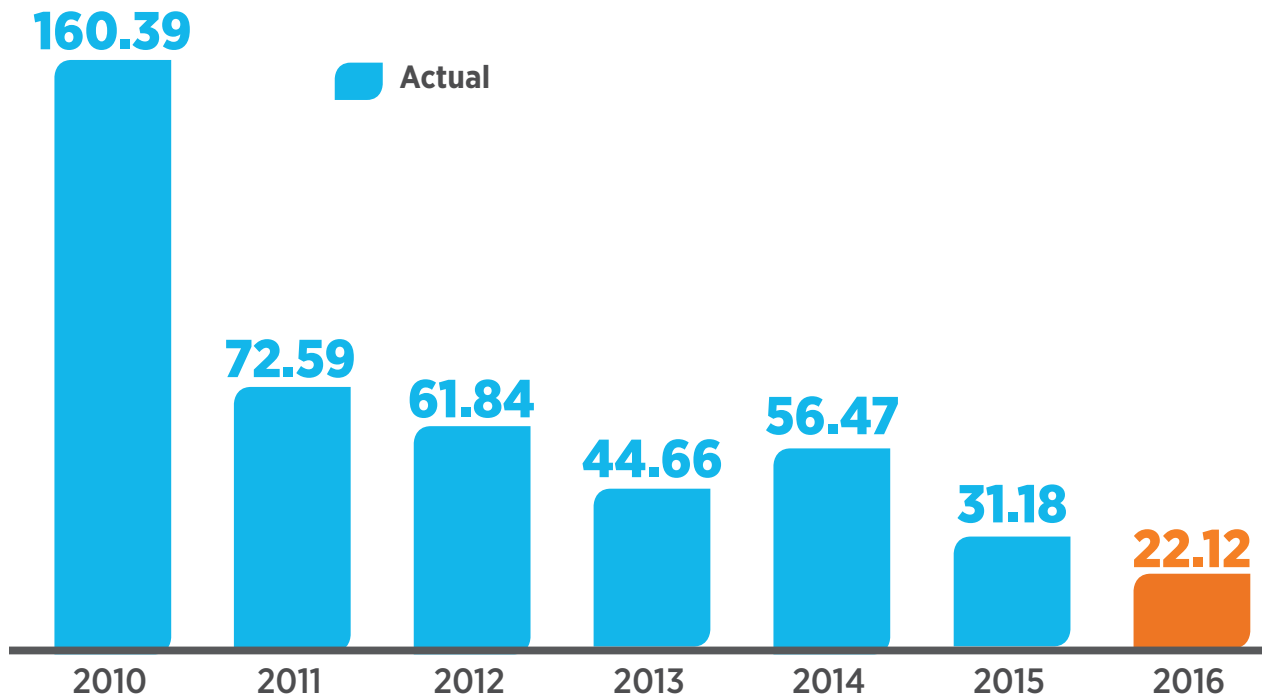
## Lost Time Injury Severity Rate



## Lost Time Injury Frequency Rate



## Restricted Work Severity Rate (RWS)



### G4-LA5

## Formal Joint Management-Worker Health and Safety Committees

There are approximately 44 members in the Joint Health and Safety Committees, of which 20 represent the employer and 24 represent workers. These committees represent 100% of Toronto Hydro’s workforce.

## Labour relations

Toronto Hydro works closely with the Power Workers’ Union (PWU) and the Society of Energy Professionals to build and maintain long-term, constructive, and mutually beneficial relationships. Unionized employees represent approximately 61% of the workforce. Toronto Hydro engages in good-faith bargaining with both labour unions, and communicates frequently with both unions to ensure that all parties are working towards positive results for employees, customers and stakeholders.

Toronto Hydro evaluates the effectiveness of labour relations, in part, by the successful negotiation of collective agreements, as well as by various organizational productivity attainments that rely upon successful and harmonious discussions and agreements with labour unions outside of collective bargaining. Effectiveness of labour relations is determined by monitoring and assessing employee morale, including metrics to evaluate employee behaviour, attendance, engagement and performance. Attendance in 2016 improved by 5% over 2015 and 27% over 2014.

## Labour practices and grievance mechanisms

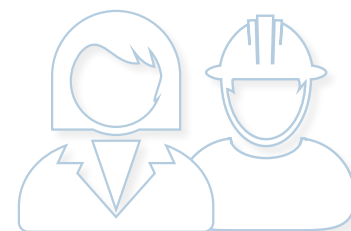
Toronto Hydro recognizes the importance of having clear, fair, agreed-upon internal complaints procedures to resolve the unions' and employees' workplace concerns and disputes. All collective bargaining agreements have detailed, step-by-step provisions regarding the methods for resolving grievances. These provisions mandate the meeting of Union and Company representatives, with escalation to the next level of management, and ultimately to arbitration or mediation if the parties cannot agree on a resolution. All of these processes are legitimate, accessible, and transparent, with the goals of open dialogue and resolution.

To provide an orderly procedure for the settling of grievances, Toronto Hydro acknowledges the right of unions to appoint or elect stewards/representatives, whose duties include assisting employees in preparing for and presenting grievances in accordance with grievance procedures. Effectiveness of internal grievance mechanisms is evaluated by the successful adherence to internal processes, and the resolution of many grievances both internally and at arbitration.

## Freedom of association and collective bargaining

Toronto Hydro recognizes the labour unions as the exclusive bargaining agents for the employees they represent, and collective agreements with both labour unions allow for freedom of assembly/association by permitting employees to be represented by, and to meet with, their union representatives, as needed. Toronto Hydro agrees that with respect to employment or any term or condition of employment, discrimination against any employees by reason of membership or activity in a union will not be tolerated.

Toronto Hydro bargains in good faith on all matters that involve labour unions and the employees they represent, and effectiveness of this approach is evaluated by the successful negotiation of collective agreements. In 2014, two collective agreements with the former CUPE Local One were successfully negotiated without any labour disruptions, each with a four-year term. In 2016, the collective agreement with Society of Energy Professionals was also successfully negotiated without any labour disruptions, with a four-year term.



**GRI General Standard Disclosures:** G4-34, G4-40, G4-51, G4-56, G4-57, G4-58

**GRI Specific Indicators:** G4-SO4

**G4-57** .. **G4-58**

## Code of Business Conduct and Whistle Blower Procedure

All employees, officers and directors of the Corporation are required to comply with the principles set out in the Code of Business Conduct and Whistleblower Procedure (“the Code”), which was originally implemented by Toronto Hydro in 2003, and is reviewed and approved by the Board on an annual basis. The Code provides guidance to all employees in situations of perceived conflict of interest. All employees, officers and directors of Toronto Hydro are required to complete training in respect of the Code and sign an attestation in accordance with the Code upon commencement of employment and every three years thereafter.

The Code provides for the appointment of an Ethics Officer and establishes a direct hotline to the Ethics Officer by which perceived violations of the principles set out in the Code may be reported, anonymously or otherwise. Where the complaint involves the conduct of a director or officer of the Corporation, the Ethics Officer is required to report it to the Chair of the Human Resources and Environment Committee of the Board, or, where such conduct relates to questionable auditing or accounting matters, to the Chair of the Audit Committee of the Board, who oversees the investigation of that complaint. In addition to the provisions of the Code, the Ethics Officer reports quarterly to the Human Resources and Environment Committee of the Board on the nature of complaints received and the Director, Internal Audit reports quarterly to the Audit Committee on matters related to audit and accounting. A copy of Toronto Hydro’s Code of Business Conduct and Whistleblower Procedure is available on the SEDAR website at [sedar.com](http://sedar.com)

## Internal Audit

Internal Audit is an independent and objective business unit within Toronto Hydro that provides objective assurance and consulting services designed to add value and improve operations. Internal Audit uses a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, internal control procedures and governance processes to support management. Through active engagement, Internal Audit promotes and embeds a proactive risk management culture throughout the organization. The internal audit function maintains its independence through its reporting structure with a direct reporting line to the Corporation’s Chair of the Audit Committee.

Internal Audit maintains an “Audit Universe” that’s aligned with the various business functions at Toronto Hydro. This “Audit Universe” is organized by auditable entities that are individually assessed for risk with the executive, annually, if not more often, to confirm and update the risk assessment and identify emerging risks and opportunities. High and medium risk areas are audited based on established cycles ranging from two to five years. Internal Audit also provides advisory services on internal control design, governance and other projects as requested by the Board of Directors or executive team.

**G4-DMA**

## Management approach to anti-corruption

► Corresponds with Toronto Hydro's Material Issue Hazardous Waste and Spills Management; Waste, Bi-products and Recycling

Toronto Hydro's Code of Conduct and Whistleblower Procedure provides direction to directors, officers and employees on how to conduct operations, with the highest standards of integrity, honesty and professionalism to meet legal obligations in addition to responsibility to society, customers and colleagues.

The Code identifies areas of potential conflict including personal outside business interests, political activity, and the acceptance of gifts, relations with suppliers and customers, and property transactions. The Code provides guidance on when such conflicts may exist, provides advice regarding potential conflicts and establishes reporting mechanisms for conflicts, including an anonymous reporting hotline to the Chief Ethics Officer.

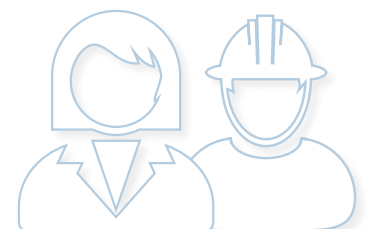
The Code establishes principles to help employees make ethical business decisions and requires all employees to act in accordance with both the letter and the spirit of all laws and regulations applicable to the conduct of Toronto Hydro's business. Employees are expected to be sufficiently familiar, and act in accordance, with any laws that apply to their work, to recognize potential liabilities, and to know when to seek legal advice. If in doubt, the Code requires that they promptly seek clarification from Toronto Hydro's General Counsel. Employees must never commit or condone an illegal or improper act relating to Toronto Hydro's affairs, or instruct another employee, business partner or contractor to do so.

All consultants, suppliers and contractors, including contractors responsible for waste management and spill response, are to be made aware of the content of this Code. Each consultant, supplier and contractor shall either be provided with a copy of the Code or referred to the dedicated page on Toronto Hydro's website ([torontohydro.com](http://torontohydro.com)) each time an agreement to provide goods or services is executed, or upon any change to the Code.

**G4-S04**

## Anti-corruption training

In mid-2014, a detailed online training module was developed and implemented to assist employees in understanding the Code and issues surrounding corruption and conflicts of interest. By the end of 2016, all employees completed the anti-corruption training, with new employees required to complete the training.





## G4-40

### Nomination of Directors

As of December 31, 2016, The Corporation's Board of Directors consisted of 10 directors, with one additional directorship being vacant, all of whom are appointed by the sole shareholder of Toronto Hydro Corporation, the City of Toronto. Pursuant to the Shareholder Direction, in electing directors to the Board, the city gives due regard to the qualifications of a candidate, including:

- Experience or knowledge
- Commercial sensitivity and acumen
- Independence of judgment
- Personal integrity

The city seeks candidates with experience and knowledge in:

- Public utility commissions or boards of major corporations or other commercial enterprises
- Corporate finance
- Corporate governance
- Market development
- Large system operation and management
- Urban energy industries
- Public policy issues and laws relating to Toronto Hydro, the electricity industry, environmental matters, labour relations and occupational health and safety issues

Each citizen director is elected to serve for a term of up to two years or until his or her successor is appointed and may be elected for a maximum of four consecutive terms for a maximum of eight consecutive years or such longer term until a successor is appointed. Each City Councillor director is elected to serve for two years or until his or her successor is elected. As of December 31, 2016, female directors constituted 30% (three of 10) of the members of Toronto Hydro Corporation's Board of Directors.

## G4-34

### Board Committees

The Board has established three standing committees (Audit Committee, Corporate Governance Committee, and Human Resources and Environment Committee) as shown in the following chart.

Audit Committee	Corporate Governance and Nominating Committee	Human Resources and Environment Committee <sup>1</sup>
Michael Nobrega (Chair) Brian Chu Heather Zordel	The Honourable Howard Wetston, Senator (Chair) Councillor Paul Ainslie Mary Ellen Richardson	Brian Chu (Chair) Councillor Stephen Holyday Tamara Kronis Michael Nobrega

<sup>1</sup>Effective May 11, 2016, the name of the Human Resources Committee was changed to the Human Resources and Environment Committee.

## Audit Committee

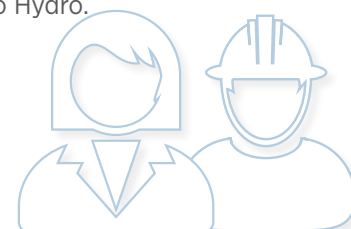
The Audit Committee is responsible for overseeing the adequacy and effectiveness of financial reporting, accounting systems, internal financial control structures and financial risk management systems. The Audit Committee reviews the Corporation's quarterly and annual financial statements, as well as financial statements prepared in connection with the requirements of applicable regulatory authorities, reviews the audit plans of the external auditors, oversees the internal audit of the Corporation, reviews and makes recommendations to the Board with respect to the payment of dividends or distribution of capital by the Corporation, and recommends the external auditor to the Board for appointment by the Corporation's sole shareholder.

## Corporate Governance and Nominating Committee

The Corporate Governance and Nominating Committee is responsible for considering and making recommendations to the Board with respect to matters relating to the corporate governance of Toronto Hydro, including board and committee composition and mandates, and guidelines for assessing the effectiveness of the Board and its committees and procedures to ensure that the Board functions independently from management. As part of its governance function, the Corporate Governance and Nominating Committee reviews a skills matrix for all potential director candidates, which is then forwarded to the Corporation's sole shareholder by the Board. The Corporate Governance and Nominating Committee also nominates independent candidates for appointment to the Board of Directors of the Local Distribution Company for approval by the Corporation's Board of Directors as required by the Affiliate Relationships Code. The Corporate Governance and Nominating Committee reviews and approves all orientation and education materials and programs for new and current directors undertaken by management. The Corporate Governance and Nominating Committee is also responsible for periodically reviewing with management the Corporation's energy policy strategies and related stakeholder management.

## Human Resources and Environment Committee

The Human Resources and Environment Committee is responsible for reviewing and assisting the Board in overseeing the recruitment and assessment of the CEO and the compensation of the CEO, reviewing and approving the compensation of the executive officers, reviewing and approving executive compensation disclosure under applicable securities laws, and reviewing and making recommendations to the Board regarding the compensation structure and benefit plans and programs of Toronto Hydro. The Human Resources and Environment Committee is also responsible for reviewing and approving the parameters of collective bargaining negotiations, the oversight of health and safety related matters and processes, and the oversight of environmental related matters and processes of Toronto Hydro.



### G4-51

## Remuneration policies for the highest governance body and senior executives<sup>2</sup>

The overall executive compensation structure and program is developed and supervised by the Human Resources and Environment Committee with the assistance of a compensation consultant, and approved by the Board.

Pursuant to the terms of its charter, the Human Resources and Environment Committee has the responsibility to annually, and more frequently if appropriate, review and make recommendations to the Board with respect to the individual performance-based incentive compensation goals and objectives related to the compensation of the CEO and to assess the CEO's performance against those goals and objectives. The Human Resources and Environment Committee also makes recommendations to the Board with respect to the overall compensation and benefits of the CEO. The Board ultimately sets and approves the CEO's compensation.

The CEO has the responsibility to annually, and more frequently if appropriate, review and approve the individual performance-based incentive compensation goals and objectives related to the compensation of other executive officers, including the Named Executive Officers (NEOs), and assess the other executive officers' performance against those goals and objectives. The CEO proposes the other executive officers' performance-based incentive compensation and overall compensation, subject to the Human Resources and Environment Committee's review and approval.

In February 2015, the Human Resources Committee with the assistance of a compensation consultant developed an Executive Compensation Policy to guide executive compensation practice. This new policy is a refinement of Toronto Hydro's existing Compensation Policy (which remains in force) and as such, reflects the previous executive compensation practices with an expanded scope to include benefits and pensions. This new policy was approved by the Board on March 5, 2015.

## Compensation of Directors<sup>3</sup>

Directors of the Corporation, other than Councillors of the City, are compensated for their services as directors through a combination of retainer fees and meeting attendance fees. These fees are set by the sole shareholder of the Corporation, the City. The annual retainer fees are as follows: Chair of the Board - \$75,000 and each of the other directors - \$12,500. The meeting attendance fees are as follows: each meeting of the Board and the subsidiaries attended - \$1,000 and each meeting of the Audit Committee, Corporate Governance and Nominating Committee, Human Resources and Environment Committee, or other Board committee attended - \$1,000, subject to annual maximum fees per committee member of \$5,000 for the Audit Committee, Corporate Governance Committee, Human Resources and Environment Committee or any other committee of the Board. The Board does, from time to time and in the normal course, strike ad-hoc committees to streamline and expedite certain matters as they come before the Board. The Chair receives no meeting attendance fees. Councillors receive no remuneration for their services as directors of the Corporation. The other directors, other than the Chair, are subject to a maximum annual total retainer and attendance fees of \$30,000.

## G4-LA13

## Compensation and remuneration

Toronto Hydro's compensation strategy focuses on maintaining the ability to attract, motivate, and retain skilled employees.

Toronto Hydro reviews the market-competitiveness of compensation packages for non-union employees annually during business planning and budgeting process. This review begins with participating in total compensation salary surveys offered through independent consulting firms. Comparisons are made of compensation data (i.e. base salary, target performance pay, and target total cash compensation) against aggregate information from companies of similar size, industry, and location.

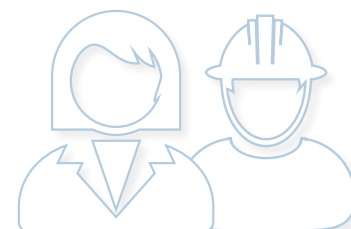
Toronto Hydro also uses benchmarking results to adjust job rates to better align salary ranges with the competitive market. The findings of the benchmarking exercise and the corporate budget are key considerations for any recommendation to the Board of Directors of Toronto Hydro Corporation regarding merit adjustments for the coming year. The final salary budget requires the approval of the Board of Directors.

## Compensation

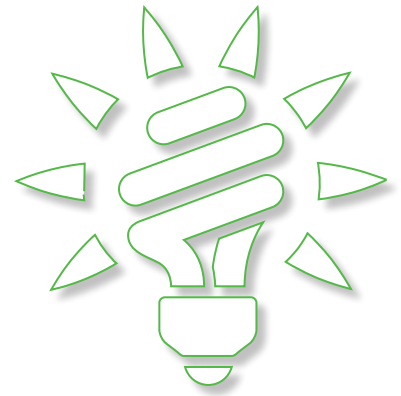
Toronto Hydro provides non-unionized employees with a total cash compensation package comprised of two elements: base salary and variable performance pay. Base salary compensates an employee for completion of their responsibilities, accountabilities and technical skills, while variable performance pay rewards employees for their contribution to the achievement of business goals and objectives tied to the organization's pillars in combination with the successfully demonstrated corporate competencies.

Toronto Hydro's compensation associated with unionized employees is negotiated through the periodic collective bargaining processes.

Employees who are part of the Society of Energy Professionals are also eligible for variable performance pay based on their achievement of the deliverables outlined in their annual performance contract, as well as the achievement of the utility's performance objectives.



## OUR ENVIRONMENT



## OUR ENVIRONMENT

The Toronto Hydro Environmental Policy's core principles require consideration of the environment in business processes. Toronto Hydro fulfills the principles through efforts to reduce greenhouse gas (GHG) emissions, prevent spills, eliminate hazardous products and reduce waste. Total GHG emissions, spills and waste diversion rates are tracked and reported. Projects are initiated to address opportunities for improvement identified through the data tracking and reporting process. For example, the installation of Governor to Reduce Idle and Pollution (GRIP) technology on 24 cube vans has led to a 27% decrease in average annual vehicle idling hours and the associated GHG emissions. Additionally, a waste reduction project called "Waste No More" contributed to the diversion of approximately 90 tonnes of waste from landfills since 2015 compared to the two prior years.

**Material Issue for Toronto Hydro:** Air Emissions, Climate Change; Waste, By-products & Recycling; Hazardous Waste and Spills Management

**Corresponding GRI G4 Aspects:** Emissions, Effluents & Waste, Compliance

**GRI General Standard Disclosures:** EU1, EU2, G4-14

**GRI Specific Standard Indicators:** EN15 EN16, EN19, EN23, EN24, EN29

## G4-14

### Precautionary approach

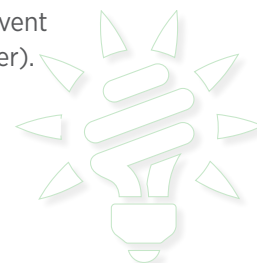
Toronto Hydro has policies and has implemented standards and practices that serve to protect the natural environment, aligned with the precautionary principle.

The Toronto Hydro Environmental Policy's core principles require consideration of the environment in business processes. In 2013, an environmental management system was established that is registered as conforming to the requirements of ISO 14001: 2004. The basis of ISO 14001:2004 is a risk based approach to identify and control the significant environmental aspects of operations. Programs are established to manage these risks (significant aspects), and activities and results are reported regularly to senior management and the Board of Directors. In 2016, Toronto Hydro was re-registered as conforming to the requirements of ISO 14001:2004. This re-registration serves as evidence of Toronto Hydro's commitment to maintain and improve the environmental management system.

The adoption of the precautionary principle at Toronto Hydro applies to the potential harm caused by the release of GHGs from fossil fuels and spills that release substances into the natural environment. Toronto Hydro puts measures in place to mitigate releases or spills even if there is no evidence of impact to the natural environment. Examples of measures put in place in support of the precautionary principle include working with customers to conserve electricity and reduce GHGs associated with the consumption of electricity. Toronto Hydro provides spills response training to employees, investigates all identified spills and restores the environment following a spill.

Toronto Hydro also applies the precautionary principle when reviewing chemicals in new products. A banned and restricted chemicals list has been developed to reduce the likelihood of chemicals that potentially pose an environmental risk being purchased by Toronto Hydro. When reviewing a new product, Toronto Hydro compares the chemicals to the list and, if the chemical is on the list, alternatives must be used if practicable. The list goes beyond chemicals banned through legislation and includes chemicals that potentially create negative environmental impacts. The list includes chemicals from legislation such as *Ontario Regulation 63/09 Pesticides and Ontario Regulation 463/10 Ozone Depleting Substances*, as well as international treaties such as the Rotterdam Convention and the Stockholm Convention.

Internally, engineering controls to reduce energy consumption and the associated GHGs for buildings and fleet are being increased. Work to eliminate oil containing polychlorinated biphenyls (PCBs) in assets is being aggressively pursued as well as implementing processes and design improvements to prevent the release of spills into the environment (for details see Effluents and Waste section in this chapter).





## G4-DMA

### Management approach to greenhouse gas emissions

#### ► Corresponds with Toronto Hydro's Material Issue: Air Emissions

Toronto Hydro's approach to managing greenhouse gas (GHG) emissions is to support the City's goals in their efforts to reduce GHG emissions. In 2015 and 2016, anti-idling technology was evaluated, a facilities consolidation program continued to reduce the square footage per employee of the buildings occupied by Toronto Hydro, and staff were relocated to a new, energy-efficient building from the 6 Monogram Place location. These and other initiatives are described in greater detail below.

Toronto Hydro's GHG emissions are below the reporting threshold for Environment Canada's National Pollutant Release Inventory (NPRI). The NPRI represents public disclosure of Toronto Hydro's carbon footprint.

## G4-EN15

...

## G4-EN16

### GHG accounting

Toronto Hydro reports GHG emissions through Scope 1 and 2 emissions, as quantified in accordance with national and provincial GHG reporting guidelines, and the GHG Protocol – Corporate Accounting and Reporting Standard.

- **Scope 1** – Consists of direct emissions from stationary combustion (facilities), mobile combustion (fleet) and fugitive sources (SF<sub>6</sub> and refrigerant leaks)
- **Scope 2** – Contains indirect emissions from the use of purchased electricity (facilities and line losses)

Toronto Hydro's GHG inventory includes all Toronto Hydro-owned and controlled (leased) facilities; however emissions associated with capital work performed by contractors are not included. Scope 3 emissions are also not included in this GHG inventory.

The emission factors used to calculate the GHGs are the provincial values<sup>4</sup> representative of Ontario's energy supply mix, and are measured in tonnes of carbon dioxide equivalent emissions per gigawatt-hour (tCO<sub>2</sub>e). The data from 2014 represents Toronto Hydro's greenhouse gas base year for comparison purposes. The base year for comparison of GHG emissions was chosen to be 2014 as the methodology for calculating SF<sub>6</sub> emissions was changed in 2014.

<sup>4</sup>Emission factors published in Environment Canada's National Inventory Report 1990-2014: Greenhouse Gas Sources and Sinks in Canada

## Data sources used to calculate GHG emissions

Energy consumption data (electricity and natural gas) is collected from utility providers for all Toronto Hydro facilities included in the organizational boundaries described above.

The following information is used to complete the GHG calculations:

- **Fuel consumption of fleet** – documented with fuel supplier data and billing statements
- **SF<sub>6</sub>** – emission calculations were based on vendor top-up reports, including the kilograms of SF<sub>6</sub> gas used during equipment top-ups and losses during equipment decommissioning
- **Energy consumption of facilities** – collected from digital files on electricity, natural gas billing statements, and consolidated billing files from third-parties for leased buildings. Where natural gas use data was not available, 2012 data (the most recent data available) was used
- **GHGs** from refrigerant leaks are not included in the calculations as they were deemed immaterial (<0.05% of emissions)

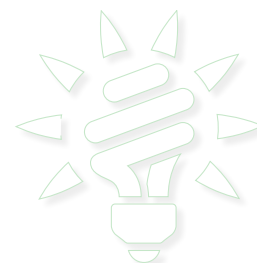
## Internal Data Assurance

Toronto Hydro conducted a sample audit of select electricity and natural gas bill entries, fuel consumption data, SF<sub>6</sub> manufacturer data and line loss data (electricity purchases and sales) to help decrease the potential for data entry errors.

## Changes to our organizational boundaries

Since the last Corporate Responsibility report in 2014, Toronto Hydro worked on renovating a facility at 715 Milner Avenue, which will replace a building previously leased. Another office space at 777 Bay Street is now being occupied, which uses deep-lake cooling technology. These changes are reflected in the current organizational boundaries.

Toronto Hydro measures GHG emissions from four key sources: vehicle fleet, facilities, lines losses, and SF<sub>6</sub> gas releases from equipment. In 2016, Toronto Hydro generated a total of 40,318 t CO<sub>2</sub>e, which represents a 52% decrease over 2014. In 2015, a total of 64,138 t CO<sub>2</sub>e was generated.



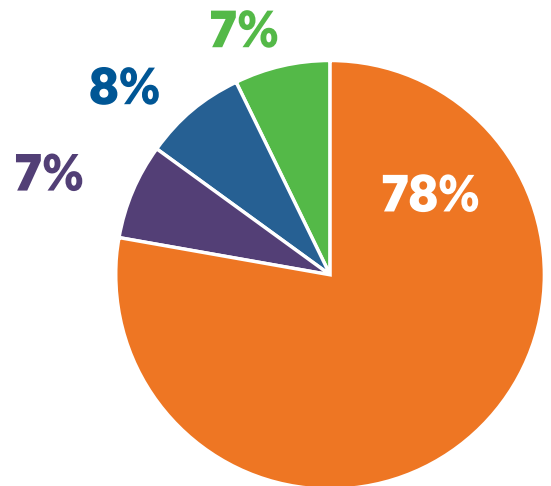
## A closer look at our carbon footprint

**LINE LOSSES** account for **78%** of emissions

**FLEET** generated **7%** of emissions

**FACILITIES** generated **8%** of GHGs (electricity and natural gas consumption)

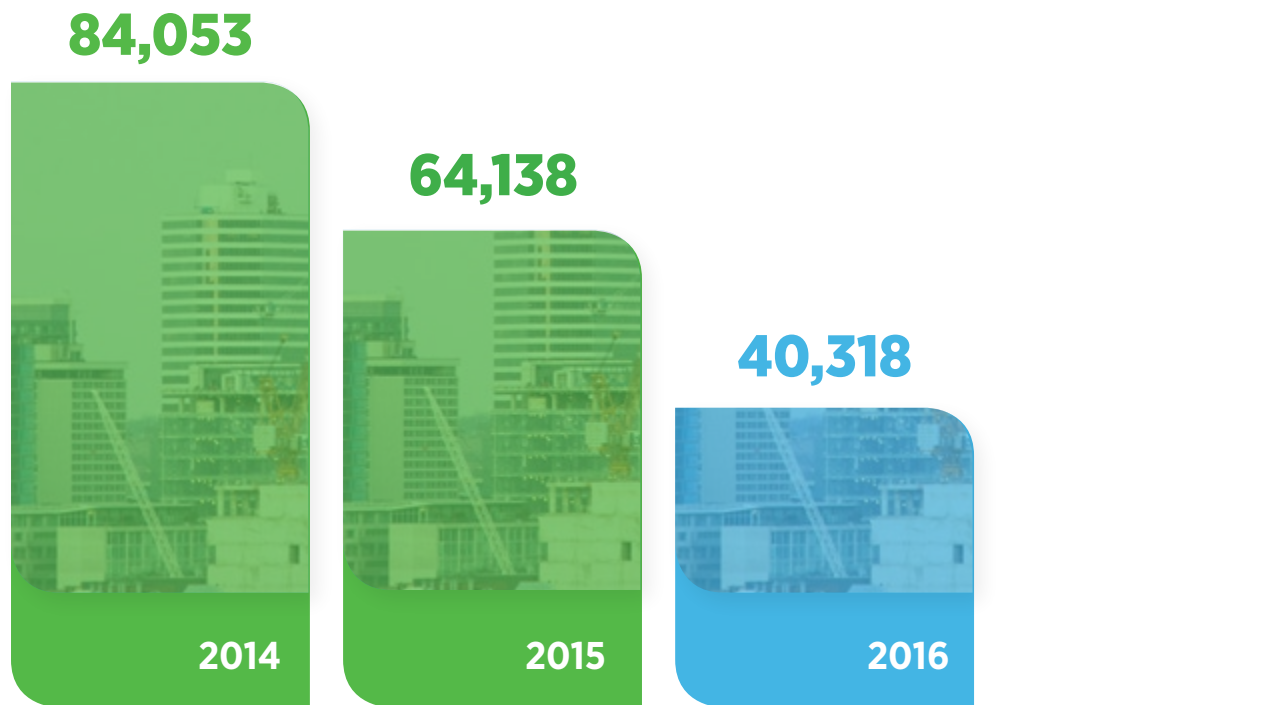
**SF<sub>6</sub> FUGITIVE EMISSIONS ACCOUNT** for the remaining **7%**



G4-EN19

## Total GHG Emissions

The following chart shows the change in total GHG emissions from Toronto Hydro since 2014. The total GHG emissions have decreased by 43,734 tonnes of CO<sub>2</sub>e.



## Fleet

Fleet fuel consumption and associated emissions in 2016 decreased by approximately 17% from 2014. This is likely attributable to:

- Reduction of the number of vehicles in the fleet
- Implementation of a motor vehicle idle management system (GRIP)
- Sustainment of a Green Fleet of vehicles
- Development of satellite locations to reduce driving times
- Education and awareness of workforce

In addition to the reduction of GHG emissions, these measures have also reduced the amount of fuel Toronto Hydro is required to purchase. The following chart illustrates the fuel consumption since 2014.

## Fuel Consumption



### Maximizing the efficiency of Toronto Hydro’s vehicle fleet

The vehicles in the shared pool consist of speciality vehicles required to complete very specific tasks. The pool vehicle program has helped Toronto Hydro reduce fuel consumption and emissions, and has reduced the number of vehicles on the road. Toronto Hydro decommissioned 32 vehicles from the fleet since 2015.

### GRIP Idle Management System

The installation of Governor to Reduce Idle and Pollution (GRIP) technology on 24 of Toronto Hydro’s cube vans (starting in late 2014), has led to a 27% decrease in average annual idling hours in GRIP-equipped vehicles (compared to non-GRIP equipped cube vans).

In November 2015, Toronto Hydro began GRIP trials in four of its new heavy duty bucket trucks, which has resulted in a 26% decrease in idling amongst those trucks (compared to non-GRIP equipped trucks). In July 2016, Toronto Hydro trialed the GRIP units in five of its highest idling pick-up trucks.

Since installing the GRIP system in pick-up trucks, Toronto Hydro realized a 22% reduction in idling hours across this pool of vehicles compared to the same period, in 2015 (July-November, inclusive).

The GRIP system has delivered proven idling reduction. GRIP functions by shutting the engine off after one minute of idling and deferring to the auxiliary battery power source requiring long-lasting batteries in order to fully optimize the GRIP system’s use. In 2016, Toronto Hydro explored various means of extending auxiliary battery longevity. Solutions currently being trialed are: (1) decreasing load on the auxiliary battery by swapping out the existing inverter for a high-efficiency generator; (2) swapping existing auxiliary battery for a high-efficiency lithium ion battery; (3) reactive reporting on vehicles not plugged into shore power nightly. Preliminary results on the expected benefits of these solutions are anticipated by the end of 2017.

## FACILITIES

In 2016, total electricity consumption at Toronto Hydro facilities decreased by 20.6% and natural gas consumption decreased by 20.9% over 2014. The decreases can be attributed to the various energy efficiency initiatives undertaken by Toronto Hydro (see page 72 for further details).

### Line losses

GHG emissions from line losses in 2016 decreased by 57% from 2014. This decrease is largely attributed to the lower provincial emission factor.

### SF<sub>6</sub> fugitive emissions

The total SF<sub>6</sub> fugitive emissions increased by 65% in 2016 compared to 2015. This increase is believed to be due to a more accurate and comprehensive measurement methodology introduced in 2016. Reportable SF<sub>6</sub> fugitive emissions increased by 39% over 2014 as a result of the change to the process for tracking SF<sub>6</sub> gas inventory and equipment emissions (for details see Data Sources and Internal Data Assurance).

### Reducing physical footprint and boosting energy efficiency at 71 Rexdale Boulevard and 500 Commissioners Street

As part of its Facilities Consolidation program, aimed at making better use of space at existing work centres, in 2016, Toronto Hydro completed the construction of the David M. Williams Centre. The new facility, located at 71 Rexdale Boulevard, is built on a former industrial brown-field site utilizing much of the original building's structural steel and concrete. This new building has incorporated Toronto Hydro's new building and facility standards, including the use of energy-efficient lighting and Information Technology (IT) equipment, low volatile organic compound (VOC) paints and carpets, standardized office furniture, and elimination

of desk-side waste bins. More effective use of office space has resulted in approximately a 40% reduction in Toronto Hydro's space utilization per employee relative to 2012.

Key facts related to the David M. Williams Centre construction project:

- Over **2,500 tonnes of concrete and 400 tonnes** of steel were salvaged, reused and diverted from landfill
- Re-used existing furniture: 171 filing cabinets; 13 manager office furniture sets (including desks and storage cabinets); 75 training room tables; approximately 340 employee desk chairs; cafeteria furniture (20 tables and 55 chairs); security office welcome furniture (four chairs and two tables); warehouse furniture (racking and shelving, 10 workstations and two supervisor office furniture sets); and 230 lockers. The company assisting Toronto Hydro with this office move **diverted from landfill 62% of its waste furniture** (recycled 66.3 tonnes of furniture and sold 19 tonnes)
- A variable air volume air handling system combined with multi-staged direct expansion cooling and perimeter radiant heating ceiling panels provide optimal comfort conditions for occupants
- A demand control ventilation system is used to maximize indoor air quality and air handling system efficiency
- A Building Automation System that controls and monitors core building systems (HVAC, lighting, water supply, life safety systems & security etc.) help ensure safe working conditions and prevents business interruptions by identifying and addressing building related issues proactively
- Dedicated parking spaces have been assigned for carpool vehicles

Furthermore, the roof at the 500 Commissioners Street location was replaced. The replacement included the addition of better insulation. This initiative resulted in improved insulation, reduced heat loss and better utilization of HVAC equipment. The new roof reduced the load on the facility HVAC units and contributed to a **drop in the 2016 natural gas consumption by 19%** relative to 2014 values.

Complementing the aforementioned initiatives, departmental metrics such as reduction of energy use, square footage and GHGs are monitored monthly as part of Toronto Hydro's Operational Support Services scorecard.

David M. Williams Centre, 71 Rexdale Boulevard.



G4-EU1

...



G4-EU2

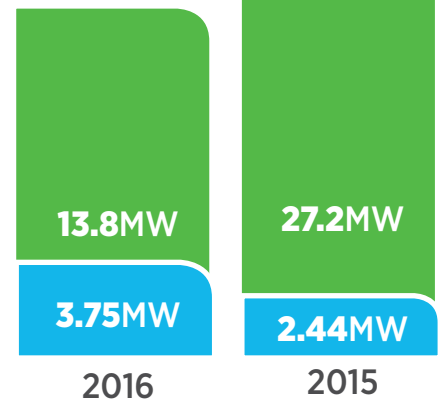
## RENEWABLE ENERGY

Toronto Hydro operates in an environmentally responsible manner consistent with the City of Toronto’s energy, climate change and urban forestry objectives. As such, Toronto Hydro has been supporting renewable generation initiatives across Toronto by assisting with the development of new infrastructure and making direct project investments. The initiatives described in the following sections demonstrate Toronto Hydro’s support of the City’s renewable energy goals of installing 550MW of renewable generation by 2020, including 166MW of solar photovoltaic (PV) generation<sup>5</sup>.

<sup>5</sup>The Power to Live Green: Toronto’s Sustainable Energy Strategy (2009)

## Toronto Hydro and Renewable Energy

-  Renewable energy projects
-  Renewable energy projects directly invested





## SUPPORTING INFRASTRUCTURE

Toronto Hydro provides assistance with renewable generation connections as outlined in the *Green Energy and Economy Act, OEB guidelines, and the Distribution System Code*. In general, system improvements (e.g. short circuit capacity, protection and communication upgrades) are provided for renewable generation resources under regulated rates.

Toronto Hydro has a dedicated interconnections group that provides engineering support, pre-assessments and Connection Impact Assessments for renewable generation projects under a streamlined process. In 2015 and 2016, 235 micro Feed-in Tariff (microFIT) interconnections (each under 10kW capacity) were enabled with a total combined capacity of approximately 1.9 MW. In 2015 and 2016, 334 FIT interconnections (each greater than 10kW capacity) totalling more than 39 MW of generation were enabled. This accounted for an estimated 25% of rooftop FIT solar PV installed in the province.

When net-metered and Renewable Energy Standard Offer Program projects are included, Toronto Hydro has enabled more than 1,572 renewable generation interconnections totalling approximately 81.9 MW between

2009 and 2016. This was achieved through:

- Dedicated interconnection team and streamlined process
- Investment in infrastructure projects to address technical grid constraints
- Development of an energy centre to monitor/forecast/dispatch generation resources
- Education and outreach programs to stakeholders

## DIRECT PROJECT INVESTMENTS

Toronto Hydro is jointly investing in solar PV projects with the City of Toronto with units installed on city-owned facilities. As of the end of 2016, the projects have a combined capacity of 2.5 MW, which generated 3,430 MWh of electricity in 2016.

Toronto Hydro also maintains three other renewable generation projects (Exhibition Place Wind Turbine, Better Living Centre Solar and 500 Commissioners Street Solar), which have an installed capacity of 1.25MW. In 2016, these generated 1,840 MWh of electricity.

## CLIMATE CHANGE ADAPTATION

In 2015, Toronto Hydro completed a vulnerability assessment study following the Public Infrastructure Engineering Vulnerability Committee (PIEVC)

protocol developed by Engineers Canada. Through this study, a risk assessment was conducted for the various components and areas of the distribution system that are expected to be impacted by projected climate change. The results of this study were used to develop a road map on climate adaptation initiatives. One of the initiatives completed in 2016 was the introduction of stainless steel submersible transformers to mitigate the impacts of floods on these transformers. Stainless steel transformers are less susceptible to corrosion than the previously used mild steel transformers. Toronto Hydro will continue to implement the initiatives identified on the road map.

## LOAD FORECAST SENSITIVITY STUDY

The Station Load Forecast is prepared every year to provide a 10-year peak load forecast for each transformer station. This forecast is used for planning purposes to evaluate station bus capacity adequacy. Ambient air temperatures can affect the load forecast. By using projected future temperature data rather than historical data, a more accurate load forecast was developed to be used for planning purposes.

## LIGHTNING MAPS

Lightning strikes are a significant source of outages. To analyze the effect of lightning strikes on the system, Toronto Hydro mapped data relating to historical lightning strikes across the City of Toronto and correlated this data with system outage information. In the future, this information may be used for planning purposes to enhance resiliency in areas that are more prone to lightning activity.

## MAJOR EQUIPMENT TECHNICAL SPECIFICATIONS

Toronto Hydro completed a review of Technical Specifications used for the purchase of major equipment in order to assess whether there are any opportunities to enhance the Technical Specification to provide additional resiliency.

## ASSET IMPACT STUDY

Assets can be affected by climate change in different ways and at different magnitudes. To understand these differences, Toronto Hydro assessed how different asset types are affected by different aspects of climate change, and considered the measures that can be taken with respect to technical specifications and maintenance procedures to mitigate these climate-related risks.

## INDUSTRY REVIEW

Toronto Hydro reviewed the climate adaptation plans of other utilities in Ontario, Canada and the United States to gain insight into best practices and policies.

## CLIMATE DATA

Determining the future climate of Toronto will be as important as planning and investment decisions rely on this information. A review of various climate change information was completed to verify that projections used for planning purposes were valid and widely accepted. Ongoing monitoring of data will continue as government policy and economic factors may influence the direction of future climate. Additional initiatives in 2017 will include a review of Maintenance and Capital Programs, updating or creating new construction standards, revising standard design practices, and revising system planning guidelines to include climate change adaptation requirements.

## RESILIENT CITY WORKING GROUP - COLLABORATING WITH THE CITY ON CLIMATE CHANGE

Throughout 2016, the Resilient City Working Group met on a regular basis to improve coordination with the City

and other stakeholders to help mitigate the impacts of widespread outages. Toronto Hydro has been working with participants to identify areas of the grid that are vulnerable to extreme weather events and to improve information sharing processes to better prepare for major weather events and mitigate the impact on the City.

## PARTICIPATION IN INDUSTRY DISCUSSIONS

Toronto Hydro continues to participate in the CEA-led industry discussions about the awareness of climate change impacts in the electricity generation, transmission and distribution sectors. Toronto Hydro presented its climate adaptation plans at the Electricity, Distribution, Information Systems and Technology conference in January 2016 to bring awareness about this important issue to the electric utility industry.



# EFFLUENTS AND WASTE

### G4-DMA

## Management approach to effluents and waste and compliance

► Corresponds with Toronto Hydro's Material Issue: Hazardous Waste and Spills Management; Waste, By-products and Recycling

### G4-EN23

Toronto Hydro has made a commitment to consider the environment in business practices. This commitment is core to the Environmental Policy at Toronto Hydro and requires the effective management of all environmental aspects of the organization. For example, Toronto Hydro undertakes a number of activities to prevent spills including the replacement of aging assets, completion of scheduled maintenance and inspections, and employee training and awareness.

The generation and disposal of effluents and waste could have negative environmental impacts if managed improperly. To address and effectively manage this potential risk, policies, programs and procedures are in place. Plans for additional system-wide measures to improve environmental management and reduce the chance of spills occurring in the future have also been developed. These measures include:

1. Conducting more frequent condition-based inspections (i.e. more than once every three years) on transformers that are deteriorating (see the System Maintenance Program section for more details).
2. Revising standard inspection forms to include additional information regarding transformer condition, including detailed information related to oil leaks.
3. Appointing a single group to conduct all submersible transformer inspections to improve consistency in reporting.
4. Documenting all transformer defects, including oil leaks, with pictures.

Toronto Hydro reviews the list of significant environmental aspects annually. When activities, products or services of the business are identified as a significant environmental aspect, programs and procedures are created and monitored to reduce or eliminate the risk to the environment. The programs and procedures are reviewed on an annual basis to ensure they continue to meet the needs of the EHSMS as well as to identify opportunities for continual improvement.

Three significant environmental aspects have been identified for effluents and waste:

- Handling and disposal of liquid hazardous waste
- Handling and disposal of solid hazardous waste
- Oil spills containing PCBs with a concentration of greater than two parts per million (ppm)

Waste is generated at Toronto Hydro through operations and in the office environment. This includes both hazardous and non-hazardous waste. The handling and disposal of hazardous waste is strictly legislated. All hazardous waste is transferred and disposed of using provincially registered waste shipping and disposal companies. These companies use the appropriate disposal techniques based on the type of waste to minimize the impact on the environment.

## Hazardous waste

Hazardous waste management programs are in place to address the handling and disposal of liquid and solid hazardous waste. The programs are designed to ensure compliance with applicable provincial and federal legislation. Employees receive training on how to safely handle hazardous waste. Topics include personal protective equipment, how to store waste, how to transport waste safely, how to complete the appropriate shipping documents, and emergency response. The hazardous waste management program is evaluated through regular audits with the results reported to senior management.

## Detailed tracking

Oil spills containing PCB with a concentration of greater than two ppm are managed following Toronto Hydro's spill response and reporting procedure. Spill data is tracked and reported to senior management on a monthly basis. The data is used to track performance, effectiveness of controls, and to determine if new or updated mitigation plans are required.

## Non-hazardous waste

Toronto Hydro has implemented a non-hazardous solid waste management program and conducts annual waste audits to develop waste reduction work plans in an effort to reduce the amount of non-hazardous waste that goes to landfill from work centres.

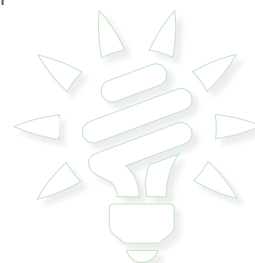
In 2015, a strategy to reduce waste was developed based on the findings of the waste audits. This strategy included monthly audits, employee education, increased awareness and employee feedback.

A waste diversion target was established at a corporate level in 2016 and progress was reported to the organization on a regular basis. In 2016, 64% of the non-hazardous waste generated at Toronto Hydro was diverted from landfill.

## Recycling treated wood poles

Sections of wood poles have historically been treated with preservation compounds in order to increase the lifespan of the poles. A study conducted in 1989 found that untreated red pine wood poles had a lifespan of approximately 4.5 years, while poles that had been treated had a lifespan of 40 to 48 years. Extending the lifespan of poles is environmentally responsible as it reduces the amount of resources (i.e. trees) required to replace old poles. Treated wood poles, however, complicate the disposal process as they cannot be recycled in the same manner as untreated wood.

Rather than sending used treated wood poles to a landfill, Toronto Hydro ships the waste to a company that specializes in the transformation of treated wood. The poles are either reused for construction materials or crushed into wood shavings for use in co-generation applications, cement works and the paper industry, among other uses.



## G4-EN24

### Spills

Toronto Hydro is required to report priority spills annually to the CEA. The CEA defines a priority spill as:

- A petroleum spill that is more than 500 litres
- A spill containing more than 1 gram of PCBs
- Any volume of petroleum based or PCB contaminated substance that enters a water body

### Priority spills

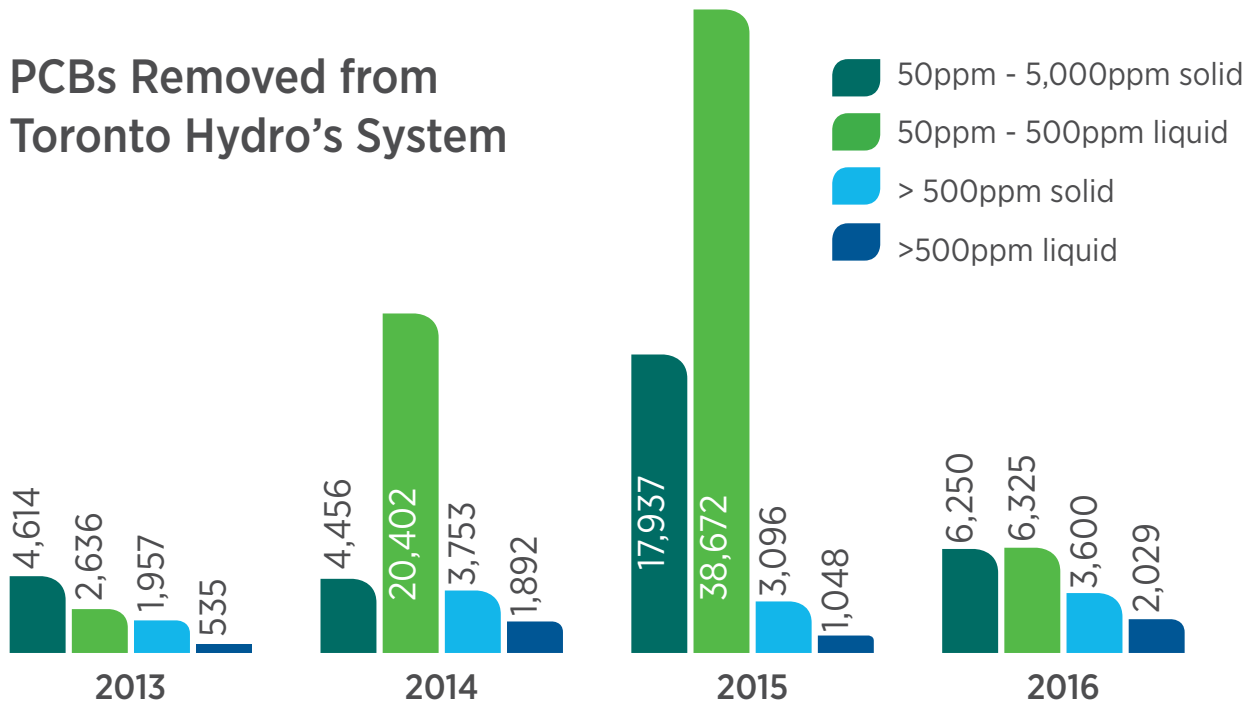
In 2015 and 2016, Toronto Hydro incurred a total of 31 and 41 priority spills, respectively. In these two years no spill exceeded 500 litres. Four spills in 2016 contained PCBs more than 1 gram, three of which entered a water body. No spills containing PCBs more than 1 gram occurred in 2015.

In each situation, remediation of the spill was completed. The corroded or defective electrical equipment was removed from service and replaced with a new unit.

### Eliminating PCBs entering water bodies

Toronto Hydro initiated a capital replacement program in 2016 to replace all submersible transformers in the distribution system that were manufactured prior to 1986. Most submersible transformers of this vintage, which at the beginning of 2016 amounted to approximately 900 units, were suspected of having oil containing PCBs. The objective of the project was to eliminate the potential for releases of PCBs to a water body. By the end of 2016, approximately 500 of these units were replaced. Toronto Hydro expects all transformers included in the original scope of the project will be replaced in the near future.

### PCBs Removed from Toronto Hydro's System



## A breakdown of Toronto Hydro's waste

### NON-HAZARDOUS WASTE

Eight hundred and thirty-seven metric tonnes of waste were recycled or composted and 479 metric tonnes were sent to landfill in 2016. In 2015, 1,000 metric tonnes of waste were recycled or composted and 478 metric tonnes were sent to landfill. This resulted in annual waste diversion rate improvement of 5% from 2014. These numbers do not include the amount of waste recovered through the investment recovery process.

### INVESTMENT RECOVERY PROGRAM

Toronto Hydro has an investment recovery program where valuable waste metals are sold for reuse. In 2016, 1,733 metric tonnes of scrap metals were sold through this program. When added to the recycling totals above, Toronto Hydro's waste diversion rate increased to 85%.

### HAZARDOUS WASTE

In 2015, approximately 1.26 million litres and 252 metric tonnes of hazardous waste were sent for destruction or recovery. In 2016, approximately 1.38 million litres and 342 metric tonnes of hazardous waste were sent for destruction or recovery.

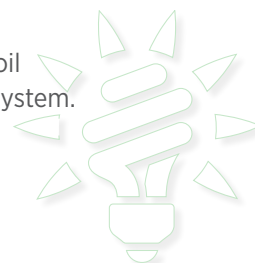
### POLYCHLORINATED BIPHENYLS

Similar to most electrical utilities in Canada, Toronto Hydro owns and operates equipment that has oil containing PCBs. The operation of this equipment is compliant with the PCB Regulations under the *Canadian Environmental Protection Act, 1999*. In recognition of the persistent ecological effects of PCBs, Toronto Hydro is actively removing and safely destroying equipment and oil containing PCBs in excess of the standards prescribed by federal and provincial laws.

This removal and destruction has been accelerated in recent years and has been enabled by proactive inspections of equipment suspected of having oil containing PCBs and testing of oil in equipment for the presence of PCBs. In 2016, Toronto Hydro conducted inspections and oil sampling for more than 3,000 transformers.

In 2016, approximately 10,000 kilograms of material<sup>75</sup> and 8,500 litres of liquids containing PCBs were sent for destruction. In 2015, approximately 21,000 kilograms of material and 40,000 litres of liquids containing PCBs were sent for destruction. The amount of solid waste containing PCBs decreased by approximately 53% from 2015. The liquid waste containing PCBs decreased by approximately 80% from 2015. The majority of contaminated liquid in 2015 came from a single location. Approximately 27,600 L of contaminated water was identified at the location as a result of Toronto Hydro's diligence in testing suspect contaminated water. The water was contained at the location and shipped for disposal. The source of the contamination was identified and subsequently removed and sent for destruction.

The graph on the following page displays the trend in removal and destruction of equipment and oil containing PCBs since 2013 and reflects the accelerated effort to remove this substance from the system.







## Waste No More

Beginning in January 2015, Toronto Hydro piloted a waste reduction project “Waste No More” aimed at increasing the non-hazardous waste diversion rate by raising employees’ awareness about the recycling program. In association with the project, an online tool was developed to provide employees with clarity on the types of waste that can be recycled. Employees enter the type of waste they are disposing and the tool indicates where the waste should be disposed. To date, changes in employees’ behaviour related to effective source separation has led to an increase in the amount of waste diverted from landfill from 49% in 2013 to 64% in 2016 (see Figure 7).

## Diverted Non-Hazardous Waste

 Non-Hazardous Recycled Waste  
 Waste Diversion Rate

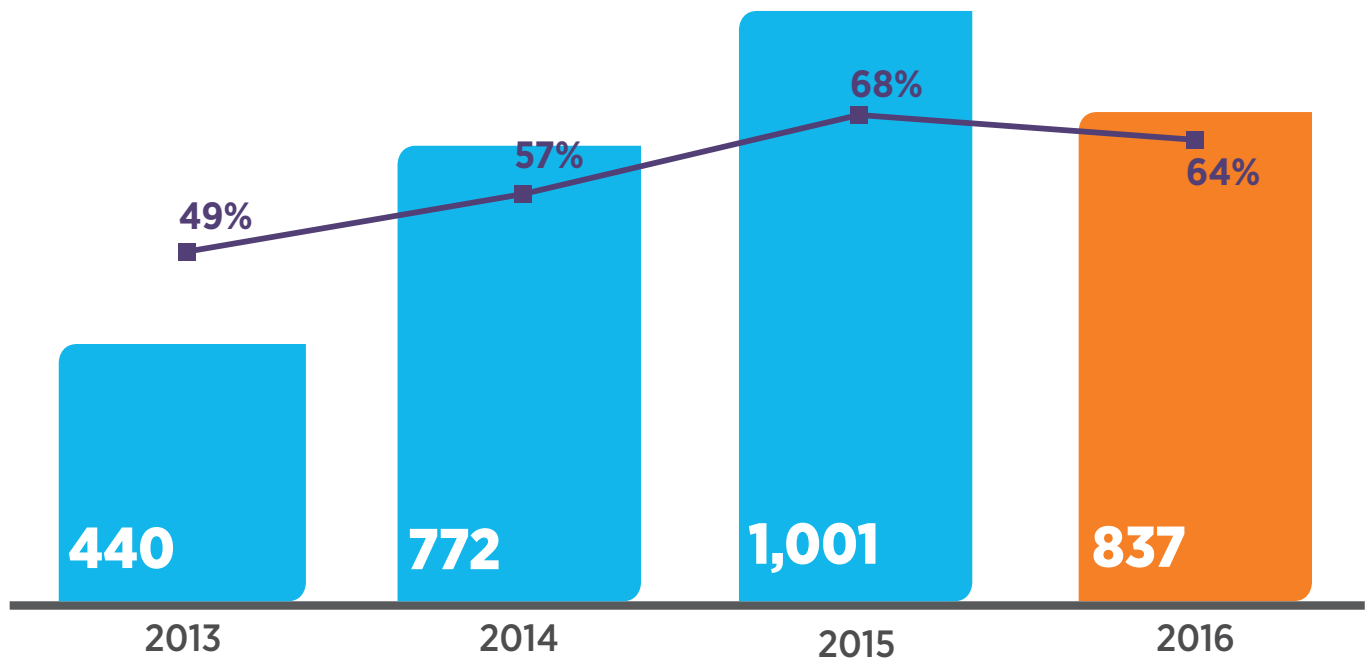


Figure 4: Non-hazardous waste diverted to recycling or compost facilities from 2013 to 2016

In addition to recycling solid non-hazardous waste from its facilities, Toronto Hydro has been diverting wood poles removed from service, fluorescent lights, batteries and electronic waste (e-waste) from landfill. Toronto Hydro diverted 876 and 1,079 metric tonnes of wood poles from landfill in 2015 and 2016 respectively. Figure 5 illustrates the respective amounts of fluorescent lights, batteries and e-waste diverted from landfill between 2014 and 2016. The amount of waste batteries has been decreasing as a project to replace the batteries in stations is reaching a conclusion.

## Diverted Hazardous Waste

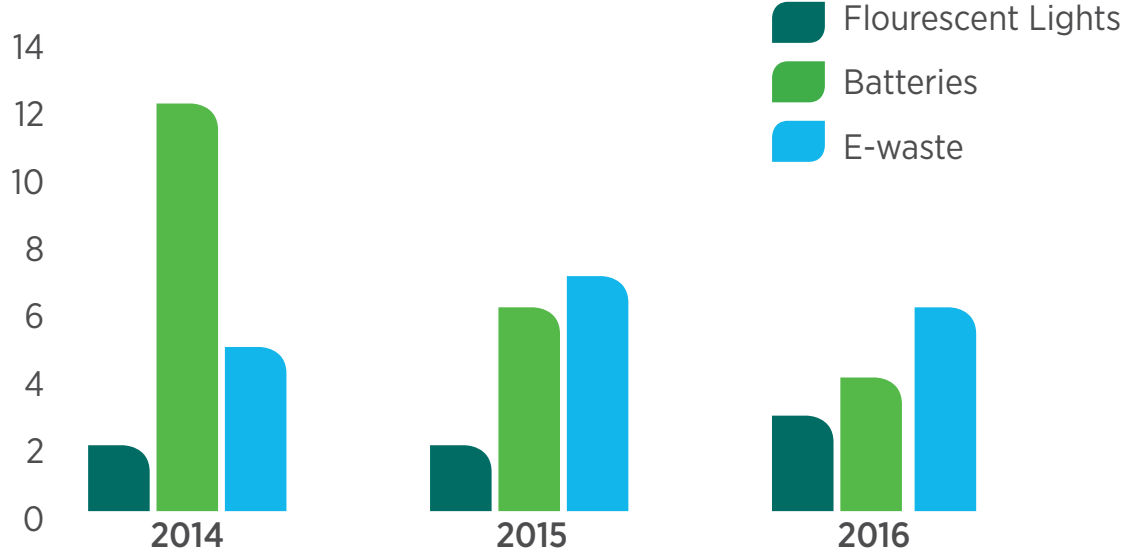


Figure 5: Diverted hazardous waste from 2014 to 2016

## Reduction of Paper Consumption

The key to reducing waste is eliminating consumption of the materials that generate waste. In 2016, Toronto Hydro continued the initiative to automate and use electronic forms in place of paper, and set duplex printing as default for most printers. Over 2015 and 2016, the five projects outlined below saved approximately 3,505,000 sheets of paper and resulted in a life-cycle GHG reduction of more than 38 tCO<sub>2</sub>e.

**ENVIRONMENT, HEALTH AND SAFETY SOFTWARE** Toronto Hydro uses an online web based application for many aspects of environmental, health and safety management, including document control and the tracking of inspections and investigations. This software has reduced the amount of paper that was previously used for recording inspections and investigation. Additionally, the software provides electronic access to procedures, which previously needed to be printed.

### TIMEKEEPING AUTOMATION PROJECT

An online web based timekeeping application was implemented throughout the organization in 2016, and has eliminated the need for timesheets and leave requests printed on paper. Annually, this is estimated to save more than 82,000 sheets of paper.



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**TORONTO HYDRO**

## PAPERLESS BILLING

In 2015, the OEB announced that all electricity distributors in Ontario must switch to monthly billing by the end of 2016. Previously Toronto Hydro issued bills every two months. This change will therefore increase the amount of paper used. Toronto Hydro worked strategically to reduce the impact by encouraging customers to sign up for paperless billing through a service called eBills. This was done through incentives, promotions and simplifying the eBill process. As a result, **96,220 customers signed up for paperless billing and saved approximately 865,980 sheets of paper in 2016.**

## DUPLEX PRINTING

In May 2016, Toronto Hydro set duplex printing as the default setting for all printers. As a result an estimated **1,385,000 sheets of paper were saved (May – December 2016).**

## ONLINE PROJECT CHANGE REQUEST APPLICATION (CRA)

A web-based solution that replaced the paper-based Change Request process is used by various employees and leaders at Toronto Hydro to process program and project changes. The online CRA enables electronic submission/initiation, processing, review and approval of a Change Request in a timely manner and eliminates paper consumption over the course of the entire workflow. The application is integrated into Toronto Hydro's enterprise intranet via the MS SharePoint interface and email application (MS Outlook) for notification and reminder purposes. The direct paper savings associated with the use of CRA are estimated to be approximately **2,500-3,000 sheets of paper per year** along with the corresponding reduction in printer ink. Additional paper savings are realized through the use of various multimedia options that replaced the traditional paper-based materials such as job aids, procedure documents, manuals and templates.

G4-EN29

## Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

Toronto Hydro did not receive any fines or non-monetary sanctions for non-compliance with environmental laws and regulations in 2015 and 2016.

### Lean Program

Lean is a methodology with the goal of creating a value-add environment by deploying continuous improvement principles in the organization. By eliminating different types of waste, such as wasted time, inventory excess, extra processing, and others, Lean is a methodology for streamlining business processes through collaborating with front-line staff.

One of the toolsets of the Lean program is 5S, which focuses on workspace organization. Toronto Hydro has conducted a pilot project utilizing 5S methodology. Unneeded inventory and stored obsolete items were removed. Clutter has been replaced by systemic order of tools and inventory based on velocity and frequency of use. Toronto Hydro was able to ensure that achievements were sustained by installing and monitoring performance boards in piloted areas. The boards allow the teams to monitor the overall performance of the 5S deployment groups, by keeping track of actions and goals for standards implementation. The 5S pilot demonstrated how the implementation of the principles of continual improvement can work in a variety of different work environments at Toronto Hydro. The plan is to use the same process to increase efficiency across other departments in the future.



## GLOSSARY

### **CDM**

Refers to conservation and demand management.

### **CEA**

Refers to the Canadian Electricity Association.

### **CO<sub>2</sub>e**

Often greenhouse gas emissions are calculated in terms of how much CO<sub>2</sub> would be required to produce a similar warming effect. This is called the carbon dioxide equivalent (CO<sub>2</sub> eq) value and is calculated by multiplying the amount of the gas by its associated global warming potential (GWP).

*Source:* Environment Canada

### **Emissions**

The release of greenhouse gases into the atmosphere over a specified period of time.

*Source:* Environment Canada

### **ERM**

Refers to Enterprise Risk Management

### **Gigawatt-Hour (GWh)**

A standard unit for measuring electrical energy produced or consumed over time. One GWh is equal to one million kilowatt-hours.

### **Global Reporting Initiative (GRI)**

An international not-for-profit organization that promotes the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development. Its framework is a reporting system that provides metrics and methods for measuring and reporting sustainability-related impacts and performance.

*Source:* Global Reporting Initiative

### **Greenhouse Gas (GHG)**

Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the earth's surface, the atmosphere and clouds. This property causes the greenhouse effect. Water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary greenhouse gases in the earth's atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the atmosphere, such as sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

*Source:* Environment Canada

### **GHG Inventory**

An accounting of the amount of greenhouse gases emitted to or removed from the atmosphere over a specific period of time (for example, one year).

*Source:* Environment Canada

### **Greenhouse Gas Protocol**

Developed by World Resources Institute and World Business Council on Sustainable Development to set the global standard for how to measure, manage, and report greenhouse gas emissions.

*Source:* Greenhouse Gas Protocol

### **GRI**

Refers to Global Reporting Initiative.

*Source:* Global Reporting Initiative

### **GRI Aspect**

The word aspect refers to the list of subjects covered by the GRI guidelines.

*Source:* GRI Implementation Manual

### **GRI Aspect Boundary**

Refers to the description of where impacts occur for each material aspect and includes impacts within and outside of the organization. Aspect boundaries vary based on the aspects reported.

*Source:* GRI Implementation Manual

### **GRI General Standard Disclosures**

Offer a description of the organization and reporting process.

*Source:* GRI Implementation Manual

### **GRI Specific Standard Disclosures**

Offer information about the organization's management and performance related to material Aspects.

*Source:* GRI Implementation Manual

### **IESO**

Refers to the Independent Electricity System Operator. The IESO and the Ontario Power Authority were merged under the name Independent Electricity System Operator on January 1, 2015.

**ISO 14001**

International standard that specifies requirements for an environmental management system to enable an organization to develop and implement policy and objectives which take into account legal requirements and other requirements to which the organization subscribes, and information about significant environmental aspects.

*Source:* International Organization for Standardization

**ISO 26000**

International guidance on social responsibility that provides guidance on how businesses and organizations can operate in a socially responsible way. ISO 26000:2010 is not a management system standard. It is not intended or appropriate for certification purposes or regulatory or contractual use.

*Source:* International Organization for Standardization

**Kilowatt (kW)**

A common measure of electrical power equal to 1,000 watts.

**Kilowatt-Hour (kWh)**

A standard unit for measuring electrical energy produced or consumed over time. One kWh is the amount of electricity consumed by ten — 100 watt light bulbs burning for one hour.

**MVA**

Megavoltamperes (MVA): Millions of voltamperes, which are a measure of apparent power.

*Source:* U.S. Energy Information Administration

**Megawatt (MW)**

A common measure of electrical power equal to one million watts.

**OEB**

Refers to the Ontario Energy Board.

**OHSAS 18001**

An internationally recognized standard for establishing occupational health and safety management systems.

*Source:* OHSAS 18001 Health and Safety Standard

**Peak Load**

The maximum demand for power, measured in megawatts, that occurs within a stated period of time. Toronto Hydro's peak system load (or peak demand) normally occurs in the summer because of power demands from air conditioning.

**Sulphur Hexafluoride (SF<sub>6</sub>)**

A synthetic gas that is colourless, odourless, non-toxic and non-flammable. SF<sub>6</sub> is primarily used in the electricity industry as insulating gas for high voltage equipment.

*Source:* Environment Canada

**System Average Interruption Duration Index (SAIDI)**

A measure (in hours) of the annual system average interruption duration for customers served, not including Major Event Days (MED). SAIDI represents the quotient obtained by dividing the total customer hours of interruptions longer than one minute by the number of customers served.

**System Average Interruption Frequency Index (SAIFI)**

A measure of the frequency of service interruptions for customers served, not including MED Days. SAIFI represents the quotient obtained by dividing the total number of customer interruptions longer than one minute by the number of customers served.



## AT A GLANCE

### About Toronto Hydro

<b>Company Name</b>	Toronto Hydro Corporation
<b>Bloomberg Company ID</b>	Toronto Hydro Corporation
<b>Country</b>	Canada
<b>GICS Industry</b>	Electric Utilities
<b>Reporting Currency</b>	CAD

### Financial

Additional information relating to the Corporation, including financial information provided in the Annual Information Form, Consolidated Financial Statements and Management's Discussion and Analysis, is available on the SEDAR website at [sedar.com](http://sedar.com)

### Environmental

	2016	2015	2014
Energy Use (GJ)	177,940	177,981	195,445
Renewable Energy Use (GJ)	18,972	11,268	9,401
GHG Emissions (metric tonnes CO2)	40,318	64,138	84,053
VOC Emissions (metric tonnes)	0.2	0.2	0.2
NOX Emissions (metric tonnes)	3.6	4.1	4.5
SOX Emissions (metric tonnes)	0.1	0.1	0.1
Total Particulate Matter Emissions (metric tonnes)	0.1	0.1	0.1
Water Use (m <sup>3</sup> )	21,190	19,932	19,424
Waste Generated (metric tonnes)	1,316	1,479	1,351
Waste Recycled (metric tonnes)	837	1,001	772

## Social

	2016	2015
<b>Health &amp; Safety</b>		
<b>Employee Injury Rate (200,000 hrs)</b> includes full time employees, term contract employees and students	0.80	1.16
<b>Fatalities</b>	0	0
<b>Employee Turnover</b>		
<b>Employee Turnover (%)</b> includes all turnover with the exception of retirements	4.92%	5.75%
<b>Pay Equity</b>		
<b>CEO to Employee Pay Ratio<sup>6</sup></b>	6.9 to 1	6.4 to 1
<b>Leadership Diversity</b>		
<b>Percentage of Women Board of Directors (%)</b>	23.08%	38.70%
<b>Percentage of Women in Executive Management (%)</b>	37.50%	37.50%
<b>Pension</b>		
<b>Defined Benefit Pension Plan Contributions (CAD\$)</b>	17,600,000	17,600,000
<b>Supply Chain</b>		
<b>Name of Largest Supplier</b>	Anixter Power Solutions	
<b>Percentage of Supplier Cost Paid to Largest Supplier (%)</b>	3%	4%
<b>Nature of Cost Paid to Largest Supplier</b>	Purchases	

<sup>6</sup> Includes salaries and benefits for full time employees as well as term contract employees from Toronto Hydro's 2016 Financial Report and CEO compensation from Toronto Hydro's 2016 Annual Information Form

# AT A GLANCE

GRI INDICATOR OR DISCLOSURE ON MANAGEMENT APPROACH (DMA)	SECTION/PAGE	COMMENTS
<b>GENERAL STANDARD DISCLOSURES</b>		
<b>STRATEGY AND ANALYSIS</b>		
G4-1 Message from the Chair and President and CEO	Pg. 1	Complete
<b>ORGANIZATIONAL PROFILE</b>		
G4-3 — Name of organization	About Toronto Hydro – Pg. 5	Complete
G4-4 — Report the primary brands, products, and services	About Toronto Hydro – Pg. 5	Complete
G4-5 — Location of organization's headquarters	Pg. 6, 7	Complete
G4-6 — Countries in which the company has operations	Pg. 6, 7	Complete
G4-7 — Nature of ownership and legal form	Pg. 6, 7	Complete
G4-8 — Markets served	Pg. 6, 7	Complete
G4-9 — Scale of the reporting organization	Pg. 6, 7	Complete
G4-10 — Employee breakdown	Pg. 50, 51	Complete
G4-11 — Employees covered by collective bargaining	Pg. 51	Complete
G4-12 — Supply chain	Supply chain — Pg. 39	Complete
G4-13 — Significant changes	Pg. 10	Complete
G4-14 — Precautionary approach	Pg. 71	Complete
G4-15 — Charters and principles	Pg. 10, 11	Complete
G4-16 — Memberships	Pg. 35	Complete
<b>ELECTRIC UTILITY SECTOR DISCLOSURES</b>		
G4-EU1 — Installed capacity	Pg. 77	Complete
G4-EU2 — Net energy output	Pg. 77	Complete
G4-EU3 — Number of customer accounts	Pg. 6, 7	Complete
G4-EU4 — Length of distribution lines	Pg. 6, 7	Complete
G4-EU5 — Allocation of CO <sub>2</sub> eq. emissions allowances		Not applicable
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>		
G4-17 — Entities listed in financial disclosure	Pg. 10	Complete
G4-18 — Report content and aspect boundaries	Pg. 13	Complete
G4-19 — Material aspects identified	Pg. 3	Complete
G4-20 — Aspect boundary within the organization	Pg. 16, 17	Complete
G4-21 — Aspect boundary outside the organization	Pg. 13	Complete
G4-22 — Restatements of information		There are no restatements in this report.
G4-23 — Changes in scope or aspect boundaries	Pg. 16	As this is our first G4 report, there are no significant changes in aspects or boundaries.

GRI INDICATOR OR DISCLOSURE ON MANAGEMENT APPROACH (DMA)	SECTION/PAGE	COMMENTS
<b>STAKEHOLDER ENGAGEMENT</b>		
G4-24 – List of stakeholders	Pg. 18, 19	Complete
G4-25 – Identification and selection of stakeholders	Pg. 18, 19	Complete
<b>REPORT PARAMETERS</b>		
G4-28 – Reporting period	Pg. 10	Complete
G4-29 – Most recent report	Pg. 10	Complete
G4-30 – Reporting cycle	Pg. 10	Complete
G4-31 – Contact point	Pg. 10	Complete
G4-32 – GRI content index	Pg. 92-95	Complete
G4-33 – External assurance	Pg. 10	Complete
<b>GOVERNANCE</b>		
G4-34 – Governance structure	Pg. 66	Complete
G4-40 – Nomination of the Board of Directors	Pg. 66	Complete
G4-51 – Remuneration policy	Pg. 68	Complete
<b>ETHICS AND INTEGRITY</b>		
G4-56 – Organization's values, principles and norms of behaviour	Pg. 8	Complete
G4-57 – Code of Business Conduct	Pg. 64	Complete
G4-58 – Mechanisms for reporting unethical concerns	Pg. 64	Complete
<b>SPECIFIC STANDARD DISCLOSURES</b>		
<b>CATEGORY: ECONOMIC</b>		
<b>Aspect: Economic Performance</b>		
G4-DMA	Pg. 21	Complete
G4-EC1 – Direct economic value generated and distributed	Pg. 21	Complete
<b>Aspect: Availability and Reliability</b>		
G4-DMA	Pg. 22-25	Complete
G4-EU10 – Planned capacity against projected electricity demand over the long term	Pg. 25	Complete
<b>Aspect: Demand Side Management</b>		
G4-DMA	Pg. 30	Complete
<b>Aspect: Research and Development</b>		
G4-DMA	Pg. 28	Complete

# AT A GLANCE

GRI INDICATOR OR DISCLOSURE ON MANAGEMENT APPROACH (DMA)	SECTION/PAGE	COMMENTS
<b>CATEGORY: ENVIRONMENTAL</b>		
<b>Aspect: Emissions</b>		
G4-DMA	Pg. 53	Complete
G4-EN15 – Direct greenhouse gas emissions scope 1	Pg. 72, 73	Complete
G4-EN16 – Direct greenhouse gas emissions scope 2	Pg. 72, 73	Complete
G4-EN19 – Reduction of greenhouse gas emissions	Pg. 74	Complete
<b>Aspect: Effluents and Waste</b>		
G4-DMA	Pg. 80	Complete
G4-EN23 – Total weight of waste by type and disposal method	Pg. 80, 81	Complete
G4-EN24 – Total number and volume of significant spills	Pg. 82	Complete
<b>Aspect: Compliance</b>		
G4-DMA	Pg. 80	Complete
G4-EN29 – Value of significant fines and total number of non-monetary sanctions for non-compliance	Pg. 87	Complete
<b>Aspect: Supplier Environmental Assessment</b>		
G4-DMA	Pg. 41	Complete
G4-EN32 – % of new suppliers screened using environmental criteria	Pg. 41	Complete
<b>CATEGORY: SOCIAL</b>		
<b>SUBCATEGORY: LABOUR PRACTICES AND DECENT WORK</b>		
<b>Aspect: Employment</b>		
G4-DMA	Pg. 39	Complete
G4-LA1 – Total number and rates of new employee hires and employee turnover by age group, gender and region	Pg. 51	Complete
G4-LA2 – Benefits provided to full-time employees	Pg. 52	Complete
G4-LA3 – Return to work and retention rates after parental leave, by gender	Pg. 50	Complete
G4-EU15 – % of employees eligible to retire in the next 10 years	Pg. 55	Complete
<b>Aspect: Occupational Health and Safety</b>		
G4-DMA	Pg. 57	Complete
G4-LA5 – % of total workforce represented in joint management – worker health and safety committees	Pg. 62, 63	Complete

GRI INDICATOR OR DISCLOSURE ON MANAGEMENT APPROACH (DMA)	SECTION/ PAGE	COMMENTS
<b>Aspect: Training and Education</b>		
G4-DMA	Pg. 54	Complete
G4-LA9 – Average hours of training per year, per employee	Pg. 54	Partial (breakdown by gender and employee category not available)
G4-LA11 – % of employees receiving regular performance and career development reviews	Pg. 56	Partial (breakdown by gender not available)
<b>Aspect: Supplier Assessment for Labour Practices</b>		
G4-DMA	Pg. 40	Complete
G4-LA14 – % of new suppliers that were screened using labour practices criteria	Pg. 41	Complete
<b>SUBCATEGORY: SOCIETY</b>		
<b>Aspect: Anti-corruption</b>		
G4-DMA	Pg. 65	Complete
G4-SO4 – Communication on anti-corruption training, policies and procedures	Pg. 65	Complete
<b>Aspect: Disaster/Emergency Planning and Response (Electric Utilities Sector Disclosures)</b>		
G4-DMA	Pg. 34	Complete
<b>SUBCATEGORY: PRODUCT RESPONSIBILITY</b>		
<b>Aspect: Customer Health and Safety</b>		
G4-DMA	Pg. 43	Complete
G4-PR2 – Number of incidents of non-compliance	Pg. 44	Complete
<b>Aspect: Marketing Communications</b>		
G4-DMA	Pg. 45	Complete
G4-PR7 – Total number of incidents of non-compliance	Pg. 46	Complete
<b>Aspect: Access (Electric Utilities Sector Disclosures)</b>		
G4-EU28 – Average power outage frequency	Pg. 24	Complete
G4-EU29 – Average power outage duration	Pg. 24	Complete
<b>Aspect: Provision of Information</b>		
G4-DMA	Pg. 47	Complete



# Occupational Health & Safety Policy

Toronto Hydro Corporation and its affiliates (“Toronto Hydro”), including the City of Toronto’s electricity distributor, is committed to preventing workplace injuries and providing a safe and injury free environment for its employees, contractors, visitors and the public. The Occupational Health & Safety (“OH&S”) Policy applies to all Toronto Hydro employees, and contractors working on behalf of Toronto Hydro.

Toronto Hydro’s OH&S core principles are:

**COMPLIANCE** — Toronto Hydro is committed to complying with applicable OH&S legal requirements and other requirements to which the organization subscribes. Toronto Hydro will periodically evaluate compliance with these requirements and report the results to the Board of Directors.

**CONTINUAL IMPROVEMENT** — Toronto Hydro is committed to improving its OH&S management system and overall OH&S performance by setting and reviewing annual OH&S objectives and programs.

**ENGAGEMENT AND CONSULTATION** — Toronto Hydro will, where appropriate, engage and consult with employees and other stakeholders where their workplace safety is involved. Employee involvement is essential.

**COMMUNICATION** — Toronto Hydro will make the OH&S Policy available to the public, and make employees, contractors and suppliers aware of the requirements of the OH&S Policy.

**ACCOUNTABILITY** — Working safely is a condition of employment. All employees, contractors and visitors will be held accountable for their personal safety behaviour and adherence to legislative requirements, established rules, policies and procedures and other instructions.

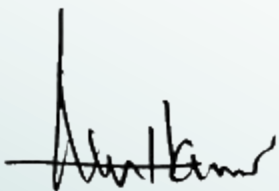
**RISK MANAGEMENT** — Toronto Hydro will plan work relative to the identified risks and hazards and conduct work with effective barriers and measures in place to reduce risks to an acceptable level.

**CONTRACTOR MANAGEMENT** — Toronto Hydro will select Contractors and Suppliers based on their ability to meet pre-determined health and safety requirements and ensure Contractors and Suppliers are aware of Toronto Hydro’s health & safety rules and policies. Contractors will be held accountable for significant safety incidents, regardless of outcome, which occurs while doing work for Toronto Hydro.

**INCIDENT INVESTIGATION** — Toronto Hydro will report, investigate and implement corrective actions for all OH&S incidents.

**PERFORMANCE MONITORING** — Toronto Hydro will regularly monitor and measure key aspects of OH&S performance, including the extent to which OH&S objectives are met and provide regular reports to management. Management and Supervisors will conduct planned workplace safety inspections on a frequency determined by Toronto Hydro executive and will be held accountable for meeting the requirements.

**WELLNESS** — Toronto Hydro is committed to educating, motivating and empowering their employees to enhance their physical, psychological and emotional health.

A handwritten signature in black ink, appearing to read "Anthony Haines".

**Anthony Haines** — President and Chief Executive Officer

## Environmental Policy

Toronto Hydro, the City of Toronto's electricity distributor, is committed to conducting its business in a manner that minimizes impacts on the environment and embodies the principles of sustainability and continual improvement in conformance with the requirements of the ISO 14001:2015 Standard. This Environmental Policy (the "Policy") applies to all Toronto Hydro employees and contractors performing work on behalf of Toronto Hydro as everyone has an accountability for protecting the environment. Toronto Hydro will communicate this Policy to all employees and contractors employed or engaged by Toronto Hydro, and make it available to the public.

Toronto Hydro's core environmental principles are:

**LEADERSHIP** — Allocate suitable and sufficient resources needed for the environmental management system. Management are responsible for the implementation of the Policy and must ensure that environmental issues are given adequate consideration in the planning and day-to-day supervision of all work.

**COMPLY WITH LEGAL REQUIREMENTS** — At a minimum, fulfil the organization's compliance obligations related to applicable environmental legislation and other environmental-related commitments approved by Toronto Hydro's executive.

**CONTINUAL IMPROVEMENT** — Continually improve the environmental management system to enhance environmental performance through the establishment and monitoring of annual objectives and associated actions, verifying attainment and correcting identified non-conformities.

**EMPLOYEE ENGAGEMENT** — Engage and educate employees on the requirements of this Policy and the environmental management system, and provide required training.

**STAKEHOLDER ENGAGEMENT** — Work constructively on environmental issues and with open dialogue with stakeholders including suppliers, customers, regulators, industry and the public to consider and mitigate where practicable the effects that our operations may have on the community.

**ENVIRONMENTAL PROTECTION** — Develop objectives, implement procedures or other actions, where practicable, to protect the environment, mitigate the potential adverse effects of climate change and other environmental conditions on the organization, and to take action to eliminate or reduce, as far as practicable, any potentially adverse environmental impacts.

**CONSIDER THE ENVIRONMENT IN BUSINESS PROCESSES** — Integrate environmental risks and opportunities into our business processes considering a lifecycle perspective where possible.

A handwritten signature in black ink, appearing to read "Anthony Haines".

**Anthony Haines** — President and Chief Executive Officer

Policy Approved: August 16, 2017  
Documented annual review on file

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