

### **Executive Summary**

The Environmental Performance Report is prepared annually for the City of Toronto; the sole shareholder of Toronto Hydro Corporation. Toronto Hydro is committed to operating in an environmentally responsible manner, while also supporting the City's energy, climate change and urban forestry policies and transition to a low carbon economy. In 2022, Toronto Hydro worked alongside the City and other partners on environmental initiatives that support: the delivery of clean energy, transportation electrification, innovation in energy storage, energy efficiency and climate change adaptation.

### **Key Highlights 2022**

### Reducing GHG Emissions & Environmental Initiatives

- Received a formal mandate from City Council to begin implementing its Climate Action Plan, including the establishment of a new Climate Advisory Services line of business
- Reduced greenhouse gas (GHG) emissions (Scope 1 and Scope 2) for Toronto Hydro by 8% in comparison to 2021; 40% in comparison to 2018
- A total of 47 on-street charging stations have been installed throughout the city, 23 charging stations
  for Toronto Parking Authority and 28 stations across all Toronto Hydro work locations to support the
  transition of electric vehicles for residents of Toronto, as well as Toronto Hydro employees
- An 11% reduction in fuel use and GHG reduction of 154 tCO<sub>2</sub>e relative to 2021 from fleet-related initiatives including anti-idling technology, use of bio-diesel and use of hybrid/fully electric vehicles
- Reduction of paper consumption by approximately 72% or 3,067,000 sheets in the last five years (compared 2022 to 2018), equating to 39 tCO<sub>2</sub>e
- In partnership with Tree Canada, Toronto Hydro planted a tree for each customer that switched to electronic bills (e-Bills); 5,000 trees planted in total in 2022
- Employee Tree Planting event, planted 242 trees and shrubs; a total of 5,259 trees have been planted across the City of Toronto since 2004
- Building Owners & Managers Association of Canada's (BOMA) Best Gold Certification for David M.
   Williams Centre and 715 Milner and BOMA Best Silver Certification for 500 Commissioners

## System Reliability, Climate Change & Disaster Preparedness

- Continued investment in innovative battery energy storage system (BESS) projects
- Preventative assessment maintenance to improve system reliability; increased checkpoints for proactive inspections to reduce the number of equipment failures that may adversely impact the environment
- Continued investment in the grid to replace aging, deteriorating, obsolete and failing distribution equipment while meeting the needs of a growing city
- Disaster Preparedness Management (DPM) program enabled effective responses to emergencies including: the COVID-19 pandemic, the May Derecho Storm and the December Winter Storm

Toronto Hydro conducts its business in a manner that supports the City of Toronto's initiatives, minimizes impacts on the environment and embodies the principles of sustainability and continual improvement. The Environmental Performance report reviews in detail the achievements of 2022 and the ongoing initiatives.

## **Contents**

Toronto Hydro Corporation	3
Climate Action	4
Climate Action Plan	4
GHG Inventory	5
Organizational Boundaries	5
Data Sources and Assurance	5
Net Zero at Toronto Hydro	6
Results and Analysis	6
Environmental Initiatives	8
Electric Vehicles	8
Plug'n Drive Events	11
Reducing Hazardous and Non-Hazardous Waste	11
Reduction of Paper Consumption	12
Employee Tree Planting	12
BOMA BEST Certification	13
Energy Conservation and Demand Management (CDM)	13
Renewable Energy	14
Enabling Infrastructure	14
Development Projects	14
Energy Security and Supply	16
Investing in the Grid – Capital Expenditure Plan	16
Preventive Asset Maintenance and Vegetation Management	17
Climate Change and Adaptation	17
Integration in System Planning	18
Participation in Industry Discussions	18
Extreme Weather	18
Disaster Preparedness Management (DPM) Program	19
Emergency Management & Business Continuity	19

# Toronto Hydro Corporation

The City of Toronto ("the City") is the sole shareholder of Toronto Hydro Corporation (THC). THC is a holding company that wholly owns two subsidiaries: Toronto Hydro-Electric System Limited, which distributes electricity, and Toronto Hydro Energy Services Inc., which provides street lighting and expressway lighting services in the City of Toronto (collectively, "Toronto Hydro" or "the Company").

The City requires the Company to uphold certain objectives and principles set out in the City's Amended and Restated Shareholder Direction (the "Shareholder Direction") relating to Toronto Hydro Corporation. This report describes how the Company conducts its affairs in accordance with environmentally related objectives set out in the Shareholder Direction by operating in an environmentally responsible manner while supporting the City's energy, climate change and urban forestry policies, and using emerging green technologies when appropriate.

Toronto Hydro has maintained a strong record of environmental performance for many years. The Company continues to strive to be a sustainable electricity leader and has received recognition for its leadership in Environmental, Social and Governance (ESG), sustainability and climate adaptation.

Toronto Hydro operates an integrated Environment, Health and Safety (EHS) Management System, facilitating efficiencies by eliminating duplicate and redundant processes. In 2022, Toronto Hydro passed an external audit confirming it effectively maintained its EHS Management System in accordance with the International Organization for Standardization's (ISO) 2015 Standard for Environmental Management Systems and the ISO's 2018 Standard for Occupational Health and Safety Management Systems. This marks the 10th consecutive year that Toronto Hydro has been certified to stringent, internationally recognized standards for environmental and occupational safety management systems by independent third-party auditors.

In addition to the ISO14001:2015 certification, Toronto Hydro has been:



Recognized as a <u>Sustainable Electricity Leader ™</u> by Electricity Canada following a comprehensive evaluation.



Certified (at three work centres) as meeting the Building Owners & Managers Association of Canada's (BOMA Canada) requirements for building environmental standards (BOMA BEST).



Recognized as ninth overall in Corporate Knights' Best 50 Corporate Citizens in Canada 2022 list and first among electricity transmission and distribution companies.



Named a 5-Star Energy and Resource Company in 2022 by Canadian Occupational Safety for its strong ESG program, measurable environmental and social impact, and consistent health and safety policy.

Toronto Hydro also enables customers to be part of the shift to a sustainable economy by connecting renewable power and energy storage to the grid, encouraging the use of electrified transportation and offering online billing to reduce paper consumption.

Overall, Toronto Hydro continues to strive to remain a sustainable electricity company. The Company regularly monitors and assesses all aspects of its environmental performance in an effort to reduce its environmental footprint and improve efficiency.

## Climate Action

The City has established an ambitious climate action strategy ("TransformTO Net Zero Strategy" or "NZ40 Strategy") to reduce greenhouse gas (GHG) emissions within the city to net zero by 2040. Toronto Hydro is a key enabler of this strategy and has similarly committed to achieving net zero Scope 1 GHG emissions by 2040 within its own operations.

#### Climate Action Plan

As a clean energy leader, Toronto Hydro is committed to bold, practical climate action to support the City's net zero vision. In 2021, Toronto Hydro submitted a Climate Action Plan (CAP) to Toronto City Council that was designed to support the City's ambitious net zero vision and focused on achieving the following three goals:

- 1. Delivering nationally significant GHG reductions.
- 2. Stimulating and facilitating the local cleantech economy.
- 3. Advancing social equity in Toronto.

Three specific climate action opportunities were submitted to City Council; (1) The Expanded Electricity Distributor, (2) Climate Advisory Services and (3) Climate Capital Investments. In July 2022, City Council approved a formal mandate for Toronto Hydro to begin implementing its Climate Action Plan, including the establishment of a new Climate Advisory Services line of business.

## **Climate Advisory Services**

Climate Advisory Services is designed to facilitate reductions in GHG emissions via electrification by reducing stakeholder-identified barriers that prevent or inhibit customers from participating in the energy transition. Under this model, Toronto Hydro is expected to act as a trusted partner with its customers, local cleantech companies, governments and other stakeholders to help remove barriers and enable projects in Toronto that electrify transportation, electrify and enhance the energy efficiency of buildings, and build renewable generators and energy storage systems.

The CAP sets out examples of these services to customers, including to:

- Identify their situation-specific opportunities
- Help in choosing particular climate actions and timing of implementation
- Provide recommendations on potential cleantech products and services to vendors
- Assist in applying for government or institutional funding such as grants and/or loans
- Remove barriers faced by low-income customers
- Assist with monitoring the implementation and evaluating results

Toronto Hydro will provide an annual climate action status report to the City as part of its regular corporate reporting.

<sup>&</sup>lt;sup>1</sup> https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/transformto/transformto-climate-action-strategy/

## **GHG** Inventory

Toronto Hydro's GHG inventory includes Scope 1 and 2 emissions (explained in more detail below), quantified in accordance with national and provincial GHG reporting guidelines<sup>2</sup> and the GHG Protocol Corporate Accounting and Reporting Standard.<sup>3</sup> The organizational boundary of this GHG inventory includes all Toronto Hydro-owned and controlled (i.e. leased) facilities.

Scope 1 emissions consist of direct emissions from stationary combustion (natural gas combustion for facilities), mobile combustion (fuel combustion for fleet) and fugitive sources (releases of  $SF_6$  and refrigerant gases). Scope 2 emissions include indirect emissions from the use of purchased electricity (facilities and line losses). Scope 3 emissions consist of all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions are not included in the Toronto Hydro GHG inventory.

The emission factors used to calculate GHG emissions are published by Environment and Climate Change Canada<sup>4</sup> and are representative of Ontario's energy supply mix. GHG emissions are measured in tonnes of carbon dioxide equivalent emissions (tCO<sub>2</sub>e).

## Organizational Boundaries

Toronto Hydro's organizational boundaries include all Toronto Hydro-owned equipment and vehicles, as well as occupied buildings. There were no significant changes in 2022 to Toronto Hydro's organizational boundaries.

### Data Sources and Assurance

**Facilities Energy Data:** Energy consumption data (electricity and natural gas) is gathered from utility providers for all Toronto Hydro-owned and controlled work centres. Building-specific energy consumption data is populated in a database. Facility energy billing data is comprised of digital files for electricity and bills from utility companies for natural gas.

GHG emissions from stationary air conditioning and refrigeration equipment (refrigerant leaks) and emissions from propane combustion were deemed immaterial (<0.05% of emissions) and are not included.

**Fleet Fuel Data:** A similar process to the facilities' energy data collection and assurance is used for the fuel consumption data of the motor vehicle fleet. A database that captures ESG data is populated from various datasets acquired from fuel suppliers and through billing statements.

**SF**<sub>6</sub> **Emissions Accounting Process:** Toronto Hydro gathers SF<sub>6</sub> emissions data by tracking the amount of SF<sub>6</sub> used to refill equipment and the amount of SF<sub>6</sub> released from decommissioned and repaired equipment. Toronto Hydro's SF<sub>6</sub> emissions are calculated in accordance with the *SF*<sub>6</sub> *Emission Estimation and Reporting Protocol for Electric Utilities*, published by Environment and Climate Change Canada. <sup>5</sup>

<sup>&</sup>lt;sup>2</sup> Environment and Climate Change Canada, *Technical Guidance on Reporting Greenhouse Gas Emissions*, available at <a href="http://www.ec.gc.ca">http://www.ec.gc.ca</a>; Ontario Ministry of the Environment, Conservation and Parks, *Guideline for Quantification, Reporting and Verification of Greenhouse Gas Emissions*, available at <a href="https://www.ontario.ca/page/ministry-environment-conservation-parks">https://www.ontario.ca/page/ministry-environment-conservation-parks</a>

<sup>&</sup>lt;sup>3</sup> The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (World Resources Institute and World Business Council for Sustainable Development), available at <a href="https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf">https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf</a>

<sup>&</sup>lt;sup>4</sup> Emission factors published in Environment Canada's <u>National Inventory Report 1990-2020: Greenhouse Gas Sources and Sinks in Canada.</u>

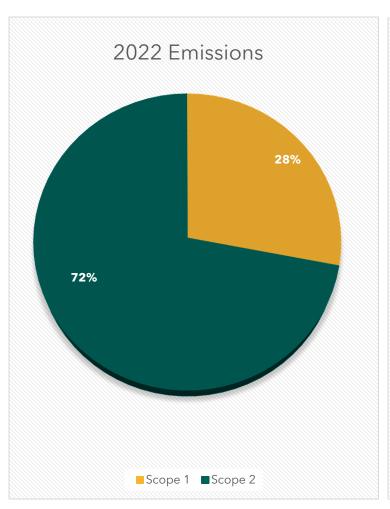
<sup>&</sup>lt;sup>5</sup> Environment and Climate Change Canada, SF<sub>6</sub> Emission Estimation and Reporting Protocol for Electric Utilities.

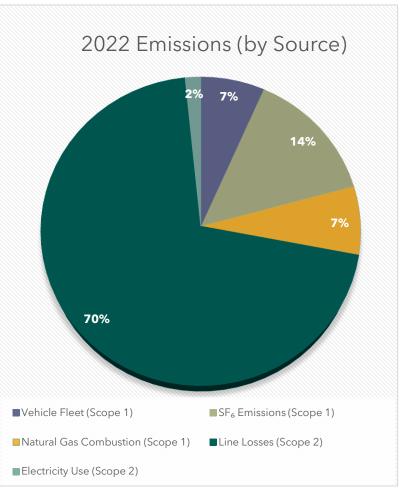
## Net Zero at Toronto Hydro

In addition to enabling the City's transition to a low carbon economy, Toronto Hydro is deeply committed to reducing its environmental impact throughout its own operations. Toronto Hydro has a target of achieving net zero Scope 1 emissions within its own operations by 2040. This builds on Toronto Hydro's previous initiatives, and will focus on reducing GHG emissions from its natural gas use, fleet operations and the use of sulfur hexafluoride (SF $_6$ ) as an insulating gas for its electrical equipment. To help track its progress towards net zero, Toronto Hydro introduced two new performance metrics on its corporate scorecard relating to environmental performance: Building Emissions Reduction and Fleet Electrification. Diligent management and corporate commitment at all levels contributed to results for each metric that exceeded the target in 2022.

## Results and Analysis

The following figures show the make-up of Toronto Hydro's carbon footprint. In summary, 70% of emissions are from line losses, 14% are from SF<sub>6</sub> emissions, 9% are from facilities (electricity and natural gas use) and 7% are from fleet emissions. **Overall, Toronto Hydro's emissions have decreased by 8% compared to 2021 and 40% over the last five years (i.e. since 2018).** 



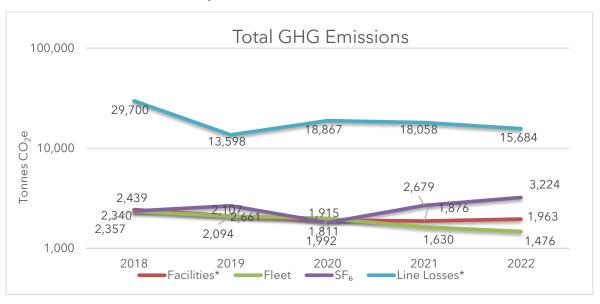


Natural gas combustion at Toronto Hydro's facilities increased by 9.5% (72,313m³) relative to 2021; the increase is likely associated with an increased number of employees working in the office. Although there was an increase from 2021, the five-year trend shows an overall decrease of 16% (158,774m³) in natural gas consumption and a decrease of 15% for associated emissions since 2018. Similar to natural gas consumption, electricity use increased by 3% relative to 2021. The five-year trend, however, decreased by 9% and associated emissions decreased by 36%. The improvements since 2018 were partially due to a remote work strategy employed in response to COVID-19 as well as the optimization of the building automation systems at work centres. Additionally, three of Toronto Hydro's work centres have achieved BOMA BEST Certification in recognition of the resource efficiency and environmental programs implemented.

The fleet fuel consumption and associated emissions decreased by approximately 11% relative to 2021. Fuel consumption and associated emissions decreased by 37% relative to 2018. This decrease is attributed to continued efforts to increase the use of lower emission biofuels, to introduce fully electric vehicles, to reduce the number of vehicles and optimize their use (see details in "Fleet-Related Initiatives" section below). Additional benefits, including reductions in idling time, fuel use and kilometres travelled, are included in the Environmental Initiatives section.

Multi-year investments to replace obsolete equipment increase the efficiency of the distribution system and contribute to reduced line losses. Toronto Hydro is replacing less efficient 4.16 kilovolt (kV) infrastructure with more efficient 13.8 kV and 27.6 kV infrastructure. In addition to reducing line losses, upgrading 4.16 kV infrastructure allows Toronto Hydro to more efficiently accommodate new large customers, renewable generation connections and electric vehicle charging stations in high-growth areas of downtown Toronto. Toronto Hydro's efforts to increase the efficiency of the system contributed to a 25% (336, 221 MWh) decrease in line losses and 47% decrease in the associated emission compared to 2018.

The following chart provides historical data on Toronto Hydro's GHG emissions by source. Toronto Hydro's 2022 GHG emissions were 22,267 tCO $_2$ e – a decrease of 8% relative to 2021.



<sup>\*</sup>Emissions associated with electricity are impacted by the annual emission factor for electricity in Ontario.

The increase in  $SF_6$  emissions is due to  $SF_6$  leaks from electrical equipment. Toronto Hydro investigates the cause of  $SF_6$  leaks to determine corrective actions and process improvements. Toronto Hydro is also analyzing alternatives to  $SF_6$  insulated equipment.

## **Environmental Initiatives**

### **Electric Vehicles**

Vehicles are one of the largest sources of GHG emissions in Toronto. In fact, the City stated that approximately one-third of the GHG emissions in Toronto are from vehicles. The City also indicated that the transition to electric vehicles (EVs) is one of the primary actions from the City's plan to achieve the 2040 goal of reducing emissions to net zero. Toronto Hydro supports the transition to EVs by increasing the availability of EV charging stations for the residents of Toronto, as well as Toronto Hydro employees. Additionally, Toronto Hydro is committed that, where available, all purchased light-duty passenger vehicles are expected to be hybrid or fully electric.

In an effort to remove some of the barriers to EV ownership for employees, Toronto Hydro installed charging stations at four work centres. While users are required to pay for the use of these stations, the availability of charging infrastructure removes a major barrier to the adoption of EVs. Four charging stations are currently operational at the 500 Commissioners and 715 Milner locations, while ten are available for employees at 71 Rexdale (David M. Williams Centre). During 2022, 10 charging stations were added to the 14 Carlton location, resulting in a total of 28 chargers available across all work locations. Toronto Hydro also demonstrates leadership in the electrification of transportation through an ongoing project initiated to replace light-duty vehicles in the Toronto Hydro fleet with electrified vehicles. In addition to 13 fully electric, light-duty vehicles already owned, Toronto Hydro acquired 20 hybrid light duty vehicles in 2022, bringing the total number of hybrid vehicles in its fleet to 23. In addition to the environmental benefits, the transition to EVs is expected to provide financial savings from decreased fuel consumption and reduced vehicle maintenance.

Toronto Hydro works with various customers, advocacy groups, industry associations and levels of government to enable the adoption of electrified transportation. At the municipal level, Toronto Hydro partners with agencies such as the Toronto Parking Authority (TPA) and the City's Transportation Services division in the development of electrified transportation projects. Toronto Hydro assisted the Toronto Transit Commission (TTC) with the technical requirements for adopting electric buses, enabling the TTC to introduce 60 electric buses. Toronto Hydro also supported the City's EV strategy through work with the City's Environment and Climate Division. At the federal level, Toronto Hydro provides input to EV forums facilitated by NRCan, actively engages with Electricity Canada on federal EV advocacy and provides input for a Measurement Canada working group related to the supply chain and efficiency of EV charging stations. The Measurement Canada working group (the Electric Vehicle Service Equipment Owner/Operator Working Group) focuses on identifying key concerns from service equipment owners and operators. It also proposes future requirements that minimize costs and regulatory burden for service equipment operators and manufacturers.

Toronto Hydro is represented on the Board of Directors of Plug'n Drive, a non-profit organization committed to accelerating the adoption of EVs. Toronto Hydro is also a member of Electric Mobility Canada and regularly participates in electricity industry stakeholder meetings to accelerate the transition to electric mobility across Canada. Participation in various EV projects and associations has allowed

6 Page 2 of https://www.toronto.ca/wp-content/uploads/2020/02/8c46-City-of-Toronto-Electric-Vehicle-Strategy.pdf

Toronto Hydro to establish a leadership position in the electrification of transportation. Toronto Hydro also supports the electrification of transportation throughout the city by partnering on innovative charging station projects.

## EV Charging – On-Street Expansion

Toronto Hydro and the City have collaborated to install EV charging stations on select streets across the city. Toronto Hydro also worked with a Canadian charging station manufacturer and operator to install the stations. These stations are part of a pilot project, which aims to:

- Understand charging usage in Toronto
- Help permit holders gain access to on-street charging
- Support the reduction of GHG emissions and other emissions harmful to air quality

A total of 47 charging stations have been installed throughout the city year to date. The charging stations are located in areas that have sufficient parking capacity for dedicated EV parking spots and where the pole placement allowed for safe installation of the charging stations with minimal disruptions to pedestrians and the community. A variety of information including usage data, feedback from EV owners who use the stations and feedback from the community may be used to evaluate the project.

Toronto City Council initially proposed to install 17 charging stations in Toronto in 2022. Toronto Hydro, in collaboration with the City's Transportation Services division, the TPA and other stakeholders, exceeded this target by installing 32 on-street charging stations in 2022. By securing funding from NRCan, The Atmospheric Fund, and the City's Environment & Climate Division, Toronto Hydro was able to proceed with installations for on-street charging stations and exceed its installation target.

## EV Charging Partnership with the TPA

Toronto Hydro worked with the TPA on a project, partially funded by NRCan, to upgrade existing charging stations and install new charging stations in parking lots. In total, nine existing standalone charging stations were upgraded to charging stations with network connection capability. The connected stations are expected to allow fee settlement and provide data on station use, which is critical for determining which areas require additional charging infrastructure. Furthermore, 23 new charging stations (20 level 2 stations and three level 3 direct current fast-charging stations) were installed at TPA locations.

## **Elocity EV Charging Pilot Project**

Toronto Hydro has partnered with a start-up company associated with Toronto Metropolitan University's Centre for Urban Energy. The start-up company (Elocity) has developed a device to transform a typical 240-volt EV charging station into a smart charge station. The device connects to a customer's Wi-Fi account and allows the customer to monitor and control their charging through an app. Toronto Hydro is offering a demand response program that customers can opt into through the app in exchange for an incentive payment. The program allows Toronto Hydro to schedule charging to reduce the aggregate load on the grid, potentially allowing costly infrastructure upgrades to be deferred. There is a guaranteed duration of charging to provide customers with an assurance that their EVs will be sufficiently charged. The initial phase of the project is to confirm that the technology has the desired result. Participant

recruitment and equipment installation started in 2022 and is ongoing in 2023. The pilot project is expected to run for a minimum of two years with the possibility of a two-year extension.

#### Fleet-Related Initiatives

Toronto Hydro operates a fleet of vehicles, which are a source of various environmental impacts. Vehicle operation inevitably leads to waste, such as waste vehicle fluids and waste vehicle components as a result of vehicle maintenance (e.g. batteries, engine parts, etc.) and the emission of GHGs. Toronto Hydro also undertook a number of initiatives (e.g. anti-idling technology, biodiesel etc.) to help reduce engine operation, thereby decreasing the associated waste, vehicle maintenance and emissions while increasing the lifespan of vehicles. These initiatives provide value to the residents of Toronto by reducing pollution, engine noise and odours, and aim to increase value to the shareholder and ratepayers by extending the useful life of vehicles and reducing repair and maintenance costs.

### Anti-Idling Technologies

In 2022, Toronto Hydro continued its use of Governor to Reduce Idling and Pollution (GRIP) technology on Toronto Hydro vehicles. The GRIP system functions by shutting the engine off after one minute of idling, in accordance with the City of Toronto bylaw, and switching to the auxiliary battery power source requiring long-lasting batteries in order to fully optimize the GRIP system's use.

In total, 17% of Toronto Hydro's on-road vehicle fleet (29 cube vans, 24 bucket trucks and 13 pickup trucks) have been equipped with GRIP since use of the technology began in 2014. This led to an approximately 31% decrease in idling time for cube vans compared to other cube vans without GRIP technology. The GRIP module was added into the specification of nine new pickup trucks that went into service in 2021, enabling further evaluation of GRIP technology on pickup trucks. Additionally, 20 hybrid light-duty vehicles went into service in 2022. Furthermore, procurement took place for 55 hybrid vehicles (pickups, sport utility vehicles and minivans) to replace internal combustion engine vehicles in 2022-2023, thereby reducing GHG emissions. Procurement has also started for one fully electric bucket truck to test the technology in operational settings. This EV is expected to arrive in the summer of 2023.

Toronto Hydro continues to pursue alternate emerging technology to reduce idling time and emissions generated from fleet vehicles, including an electric power take-off system (ePTO). In a typical bucket truck, the power take-off uses the fossil fuel-powered engine to pressurize hydraulics for aerial devices and tools and generate power for accessories. The ePTO system uses 14-kilowatt-hour (kWh) lithium ion batteries to provide electric power and eliminate the emissions from the fossil fuel-powered engine. ePTO systems were purchased and tested on two Toronto Hydro bucket trucks in 2022.

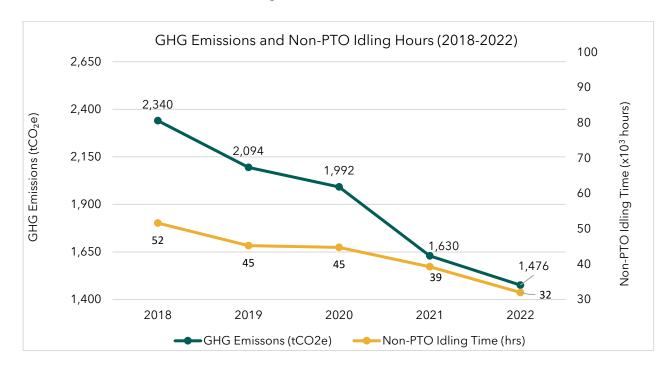
#### Bio-Diesel

Toronto Hydro uses combined bio-diesel and standard diesel to reduce emissions from its fleet. Bio-diesel generates approximately 9% less GHG emissions upon combustion than standard diesel. In total, the use of bio-diesel eliminated approximately 24tCO<sub>2</sub>e in 2022.

#### **Cumulative Benefits**

Toronto Hydro's fleet-related initiatives helped achieve an 11% reduction in fuel use (67,433 litres) and a GHG reduction of 154 tCO₂e in 2022 relative to 2021.

The savings associated with the aforementioned fleet-related initiatives, compared to 2018, are: 37% reduction in total fuel consumed (approximately 336,000 litres); 37% reduction in GHG emissions (864  $tCO_2e$ ); 41% reduction in kilometres travelled (approximately 1,108,000 km); and 38% reduction in total non-PTO<sup>7</sup> idling hours (approximately 20,000 hours). The following chart (figure 4) illustrates the correlation between the decrease in idling time and GHG emissions from vehicles.



## Plug'n Drive Events

In 2022, Toronto Hydro partnered with Plug'n Drive, a non-profit organization dedicated to promoting the adoption of EVs, to run an EV information and test program for Toronto Hydro employees and the public. The program spanned nine weeks and took place at three different Toronto Hydro work locations; 500 Commissioners, 715 Milner and 71 Rexdale (David M. Williams Centre). Participants had the opportunity to take part in various activities, such as EV test drives, workshops and other educational resources, with the goal of learning more about the benefits of driving an EV and how to transition from an internal combustion engine car. A total of 461 test drives were conducted across the three locations (93 at 500 Commissioners, 272 at 71 Rexdale and 96 at 715 Milner). Toronto Hydro's partnership with Plug'n Drive exemplifies the commitment to promoting sustainable transportation and reducing carbon emissions in the city.

# Reducing Hazardous and Non-Hazardous Waste

Similar to most electrical utilities in Canada, Toronto Hydro owns and operates equipment that has oil containing polychlorinated biphenyls (PCBs). The operation of this equipment is compliant with the current PCB Regulations under the *Canadian Environmental Protection Act, 1999.* In preparation for compliance with the legislation, which comes into effect in 2025, Toronto Hydro is proactively removing and arranging for the safe destruction of equipment and oil at risk of containing PCBs at a concentration greater than 50 parts per million (ppm) to ensure compliance with the legislation.

<sup>&</sup>lt;sup>7</sup> Some of Toronto Hydro's vehicles (e.g. bucket trucks) require engines to be kept on (idling) in order to charge and operate the vehicle hydraulics. This is referred to as power take-off (PTO) idling time.

An organized approach to the removal and destruction of equipment and oil at risk of containing PCBs is enabled by proactive inspections of equipment suspected of having oil containing PCBs, testing of oil in equipment for the presence of PCBs and targeted replacement facilitated through capital construction projects. Approximately 2,560 kilograms of solid materials and 960 litres of liquids containing PCBs were shipped for destruction in 2022. The solid PCB materials shipped for safe destruction increased by approximately 13,000 kilograms and the liquid PCB materials decreased by 6,000 litres compared to 2021.

A recycling rate is the percentage of total waste generated that is sent for recycling. Toronto Hydro measures the recycling rate of the waste included in *O. Reg. 103/94 Industrial, Commercial and Institutional Source Separation Programs* as well as some electric utility-specific waste, such as concrete and wood utility poles. Thanks to committed employees, effective source separation has led to an improvement in this recycling rate from 91% in 2021 to 92% in 2022. Recycling bins have been installed throughout buildings and in the yards at work centres to allow materials such as waste construction materials, coffee cups, plastic bottles, metal cans, plastic shopping bags, paper towels and recyclable plastic material from the field to be diverted from landfill. Organic containers have also been installed throughout work centres to divert organic materials from the landfill.

Toronto Hydro utilizes an online tool that helps employees to properly dispose of waste and recyclable materials. Employees are able to look up specific items and learn how to dispose of them correctly, thereby maximizing recycling while minimizing contamination. The online tool supports proper disposal of waste and helps reduces the amount of waste that ends up in landfills.

## Reduction of Paper Consumption

The key to reducing waste is eliminating consumption of the materials that generate waste. Toronto Hydro has implemented numerous initiatives to reduce the amount of paper used. Annual consumption was reduced by approximately 72% or 3,067,000 sheets in the last five years (i.e. 2022 compared to 2018). This equates to savings of approximately 39 tCO<sub>2</sub>e<sup>8</sup> in associated GHG emissions and approximately \$22,000 in procurement costs. These savings do not include other costs such as storage and transportation of paper records. The reduction of paper use in 2022 is partially attributed to an increased number of employees working remotely.

The paper bills sent to customers are another opportunity for waste diversion. In 2021, Toronto Hydro partnered with Tree Canada to develop a tree planting program to encourage customers to switch to electronic bills (e-Bills). Toronto Hydro, through Tree Canada, plants a tree in Ontario for each customer converted to e-Bills as part of this program. In addition to the environmental and financial savings of reducing paper bills, this program enabled the planting of 5,000 trees in 2022. Trees are an extremely valuable part of the ecosystem, with benefits that include providing shelter for wildlife, slowing rainfall run-off, cleaning air and absorbing carbon dioxide.

# **Employee Tree Planting**

In 2022, Toronto Hydro resumed its annual tree planting and garbage clean up event after a hiatus due to the COVID-19 pandemic. Toronto Hydro partnered with the City of Toronto's Parks, Forestry and Recreation division to organize the event. The event took place at ET Seton Park in Toronto and was attended by 123 employees alongside their families and friends. A total of 242 trees and shrubs were planted. Since 2004, these partnerships have helped to plant 5,259 trees across the city of Toronto.

<sup>&</sup>lt;sup>8</sup> Environmental impact estimates were made using the Environmental Paper Network Paper Calculator Version 4.0. For more information visit <u>papercalculator.org</u>.

Additionally, the event attendees cleaned the park by collecting and disposing litter that was present in the park. This event fosters a social atmosphere and provides an opportunity for families and communities to gather.

#### **BOMA BEST Certification**

Toronto Hydro's 71 Rexdale (David M. Williams Centre) and the 715 Milner work centres have received BOMA BEST Gold Certification from BOMA Canada. The construction of these two work centres required the remediation of former industrial sites. Additionally, Toronto Hydro's facility at 500 Commissioners has received BOMA BEST silver certification.

Toronto Hydro leverages its environmental performance to achieve the BOMA BEST recognition. Natural gas combustion at Toronto Hydro's facilities decreased by 4% (33,721 m3) from 2020 and 34% (392,173m3) from 2017 and overall, electricity use decreased by 17% (2,898 MWh) over the last five years. Improvements were due to numerous initiatives including optimization of the building automation systems and investments to replace obsolete equipment with energy efficient equipment. BOMA BEST considers several initiatives when awarding certifications, and Toronto Hydro strives to maintain them by reducing or eliminating practices that could harm the environment.

BOMA BEST certification is a nationally recognized voluntary framework for assessing the environmental performance and management of existing buildings of all sizes. The independent third-party certification assesses the policies, programs and procedures in place at a building through a document review and onsite verification.

# Energy Conservation and Demand Management (CDM)

The Government of Ontario made changes in 2019 to conservation programs in Ontario, and directed the Independent Electricity System Operator (IESO) to deliver CDM programs centrally. Agreements for the CDM programs in place prior to these changes remained in effect and Toronto Hydro remains responsible for its obligations under the agreements. Participants had until August 31, 2022 (December 31, 2022 if specific conditions were met) to complete the projects. Ontario businesses are expected to continue to have access to incentives for retrofits and other energy-efficiency projects to help lower their energy costs.

In 2022, Toronto Hydro worked with small business, industrial and commercial customers to implement energy-efficiency projects that had been initiated prior to the changes described above. Toronto Hydro's 2022 CDM programs led to an estimated energy savings of more than 220,960 MWh and reduced peak demand by more than 26 MW. These initiatives also helped to reduce GHG emissions in the city by 5,620  $tCO_2e^9$  since 2021.

Through Toronto Hydro's CDM initiatives, customers have reduced electricity consumption by a cumulative 3,010-gigawatt-hour (GWh) $^{10}$  and GHG emissions by a cumulative 144,467 tCO $_2$ e $^{11}$  since 2009. During the same period, Toronto Hydro's CDM programs helped customers reduce their peak demand by a cumulative 462 MW. $^{12}$  Over the entire period during which it provided CDM programs,

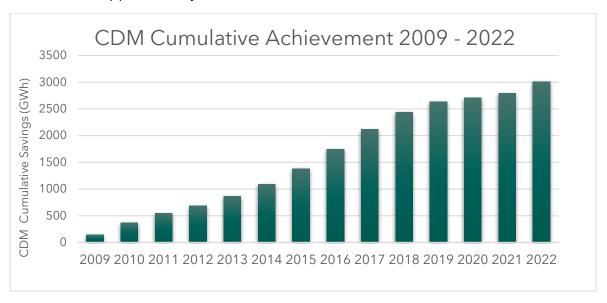
<sup>&</sup>lt;sup>9</sup> Estimated using 2020 Ontario emission factors published in Environment Canada's <u>National Inventory Report 1990-2020:</u> <u>Greenhouse Gas Sources and Sinks in Canada</u>.

<sup>&</sup>lt;sup>10</sup> The energy and peak demand savings represent cumulative totals but do not account for savings persistence.

<sup>&</sup>lt;sup>11</sup> Estimated using the Ontario emission factors published for each year between 2009-2020 in Environment Canada's *National Inventory Report*.

<sup>&</sup>lt;sup>12</sup> The peak demand savings do not include achievement from demand response programs.

Toronto Hydro helped deliver nearly one million residential and commercial CDM projects in Toronto worth a total value of approximately \$1.9 billion.



# Renewable Energy

Toronto Hydro supports renewable generation across Toronto through the enabling of infrastructure and direct project investments. The initiatives described in the following sections demonstrate how partnership with Toronto Hydro is helping to achieve the City's TransformTO goal of 50% of community-wide energy coming from renewable or low-carbon sources.<sup>13</sup>

# **Enabling Infrastructure**

Toronto Hydro's connection process for renewable generation resources is governed by the Ontario Energy Board's (OEB) Distribution System Code and Distributed Energy Resources Connection Procedures.

Toronto Hydro provides support for connected renewable distributed energy resources to its grid, including: pre-assessments, connection impact assessments, and commissioning and engineering. Additionally, Toronto Hydro offers net metering for renewable energy generation facilities where the amount of energy produced by the generation facility is metered and used to offset the owner's electricity bill.

Toronto Hydro enabled 95 renewable distributed energy resources totalling approximately 2.185 MW capacity in 2022.

# **Development Projects**

In addition to connecting customers' renewable energy projects, Toronto Hydro directly invests in renewable generation and energy storage projects.

<sup>13</sup> https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/transformto/

#### Investment

Toronto Hydro jointly invested with the City in solar photovoltaic (PV) projects on City-owned facilities. These projects were separated into three groups (Groups A, B and C). Group A consists of 10 installations and has an installed capacity of 1 MW. The construction of these projects was completed between 2012 and 2013. In 2022, these projects generated 1,306 MWh and displaced approximately 33 tCO<sub>2</sub>e.

Group B consists of 10 installations with a combined capacity of 1.5 MW, constructed between 2015 and 2016. These installations generated 1,836 MWh and displaced approximately 47 tCO<sub>2</sub>e in 2022. Toronto Hydro has majority ownership of the Group A projects, while the City has majority ownership of the Group B projects (both are split 51%/49%).

Group C consists of 52 installations with a combined installed capacity of 5.8 MW, completed in 2018. The City owns the majority of the Group C installations, with the exception of two installations at Toronto Hydro-owned facilities: 71 Rexdale Boulevard (David M. Williams Centre) and 715 Milner Ave. Toronto Hydro owns 51% of these two installations, each with a 500-kW capacity. The installation at the David M. Williams Centre generated 123 MWh in 2022 and displaced approximately 3 tCO<sub>2</sub>e while the installation at 715 Milner generated 675 MWh in 2022 and displaced approximately 17 tCO<sub>2</sub>e.

Toronto Hydro previously invested in two other renewable generation projects (Better Living Centre Solar and 500 Commissioners Solar), which together have an installed capacity of 500 kW, generated 706 MWh and displaced approximately 18 tCO₂e in 2022.

### **Battery Energy Storage**

Toronto Hydro continues to invest in and learn from innovative battery energy storage projects including the Bulwer Battery Energy Storage System (BESS), multiple BESS with the TTC and Eglinton Crosstown Light Rail Transit (LRT) BESS.

### Bulwer BESS Project

The Bulwer BESS project is a 2 MW/2 MWh BESS that is located at Bulwer Municipal Station, a retired 4.16 kV Toronto Hydro electrical substation located in downtown Toronto. This location was chosen because downtown Toronto is a highly populated area with ever-increasing demands for electricity that may require Toronto Hydro to further invest in its infrastructure to maintain system capacity and accommodate future growth. The BESS enables Toronto Hydro to balance demand on the selected feeder by charging during off-peak periods and discharging during periods of high electricity usage. The project was completed with Renewable Energy Systems Canada and commissioned in 2020.

### TTC BESS Projects

Toronto Hydro is assisting TTC in implementing three energy management and energy storage projects at TTC facilities. The construction of the 4-megawatt-hour (MWh) energy storage systems were substantially completed in 2021. This energy storage allows the TTC to balance its electrical load throughout the day and increase overall reliability at the garages. Toronto Hydro will continue to accommodate the future growth of electric buses by enhancing the electrical infrastructure required for new bus-charging equipment.

### Eglinton Crosstown LRT BESS Project

This project is expected to provide Metrolinx with clean and reliable emergency backup power to operate the new Eglinton Crosstown LRT spanning 20 kilometres between Mount Dennis and Kennedy

stations. The project includes engineering, construction and commissioning of a 10 MW (30 MWh) BESS and 90 kW solar PV distributed energy resource. This could eliminate fossil fuel-powered generators as backup power for the Eglinton Crosstown LRT, and the associated GHG emissions. It may also enable Metrolinx to balance their demand and save electricity costs. This solution was determined through outreach to residents of Toronto who would be impacted by the backup power provided to the transit system. Construction was completed in 2020 and the BESS is planned to go into operation by end of Q3, 2023.

# **Energy Security and Supply**

Toronto Hydro is working to help ensure adequate distribution capacity is available in Toronto. This work also supports the City's objective of ensuring infrastructure resiliency. Toronto Hydro collaborates with Hydro One to mitigate the potential impact of high-risk events that could result from the unplanned loss of critical transmission supply points for central Toronto, supporting key government, financial, educational and medical institutions, as well as numerous essential services.

## Investing in the Grid – Capital Expenditure Plan

Renewing the grid and replacing aging, deteriorating, obsolete and failing distribution equipment while meeting the needs of a growing city is a costly and complex endeavour. To address these challenges, Toronto Hydro develops and implements capital expenditure plans, which outline investment needs and explain how planned investments will achieve outcomes that deliver value to customers.

On December 19, 2019, the OEB issued its decision and on February 20, 2020, the OEB issued its rate order, both in relation to Toronto Hydro's 2020-2024 rate application filed on August 15, 2018. In its rate application, Toronto Hydro requested approvals to fund capital expenditures over the 2020-2024 period. The 2020-2024 capital plan continues Toronto Hydro's effort to harden the distribution system to make it more resilient when extreme weather hits. The plan saw a decrease in the distribution portion of the delivery charge of 17.4% for residential customers in March 2020 and the Toronto Hydro portion of the Delivery Charge is expected to remain below 2019 levels until at least 2024. Most rate classes for general service customers also saw a decrease in 2020. The preparation of the distribution rates application to the OEB for the 2025-2029 rate period is currently underway. Successful completion and implementation of the project work plan related to the application is expected to yield long-term results for Toronto Hydro: specifically, funding certainty and flexibility to invest in the modernization and renewal of the distribution system and to prepare for growth and electrification driven by the City's TransformTO. However, there can be no assurance that the OEB will substantially approve the activities, plans and methodologies set out therein or the revenue requirement related thereto.

The capital expenditure plan 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 and regulatory obligations to provide customers with access to Toronto Hydro's distribution system. This includes investments to connect renewable energy generation facilities and metering-related investments to maintain compliance with regulations.

- **2. Investments in the System Renewal category** target the renewal and refurbishment of distribution assets that have failed or are operating with an unacceptable level of performance risk. These programs focus on remediating assets that pose significant safety, reliability and environmental risks to customers, employees and the general public.
- **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 renewal and upgrade of critical software and hardware systems, vehicles and associated equipment, and facilities.

## Preventive Asset Maintenance and Vegetation Management

Toronto Hydro conducts proactive inspection and maintenance work to help mitigate a wide variety of risks. For example, the Company inspects underground transformers at a regular interval to gather information about their condition and to help reduce the number of equipment failures that may adversely impact the environment. Information gathered through inspections has been used to develop a plan for the removal and replacement of transformers through 2024. In addition, Toronto Hydro continued its inspections in 2022, which allowed for identification and proactive replacement of transformers that were in poor condition.

The specific maintenance and inspection tasks that Toronto Hydro conducts on its equipment and assets, and their frequencies, were established using an engineering analysis framework called Reliability Centred Maintenance (RCM). At the heart of this framework is an emphasis on safe operations (from the perspective of both work crews and the public), environmental protection, compliance and equipment reliability. Toronto Hydro adopted this framework in the mid-2000s and periodically reviews and updates its RCM analyses.

To mitigate tree-related interference with Toronto Hydro wires, the Vegetation Management program employs modern arboriculture techniques, which are designed to ensure proper care of trees. For example, when trees adjacent to a distribution line are pruned, adjacent distribution lines are expected to experience a reduction in the number of tree-caused power outages. Tree pruning is conducted in accordance with the City's Urban Forestry Tree Pruning Guidelines. In 2022, Toronto Hydro pruned approximately 70,920 trees that were adjacent to distribution lines in a manner that minimizes injury to the trees but helps improve system reliability. These vegetation management practices help protect the system against inclement weather by removing vulnerable sections of the tree canopy that may break during high winds or from the accumulation of ice and snow.

# Climate Change and Adaptation

One of the core principles in Toronto Hydro's Environmental Policy is to mitigate the potential adverse effects of climate change on the organization. This is also a requirement of Toronto Hydro's ISO 14001:2015 certification. In 2022, Toronto Hydro continued to improve the system's resiliency to extreme weather events caused by climate change. Toronto Hydro also continued to collaborate on

climate change adaptation with the City and other agencies. The purpose of the improvements and collaboration is to reduce the impacts of climate change on the residents of Toronto.

## Integration in System Planning

In 2015, Toronto Hydro completed a vulnerability assessment study following the Public Infrastructure Engineering Vulnerability Committee protocol developed by Engineers Canada. The study conducted a risk assessment for the various components and areas of the distribution system that would be affected by climate change, and the results were used to develop a roadmap on climate adaptation initiatives.

The majority of the roadmap was completed by the end of 2017 and, since then, Toronto Hydro has continued to integrate considerations regarding the impact of climate change and the risks it presents into its operations. As an example, Toronto Hydro implemented procedures requiring consideration of climate risk when planning new projects.

The consideration of temperature and climate projections is an example of climate risk inclusion in the planning process. Toronto Hydro continually reviews sources of climate data to verify that projections used for planning purposes remain valid and widely accepted, particularly as government policy and economic factors continue to influence the direction of future climate action. For example, with this data, Toronto Hydro can mitigate climate risks to the grid by reviewing and updating equipment specifications, such as the use of tree-proof wire to reduce tree contact risks and associated outages.

Another climate change consideration included in the planning process is proximity of the project to urban flooding areas. Experts predict that flooding will continue to be an issue in the city of Toronto as extreme weather events become more intense and frequent.<sup>14</sup> To mitigate this risk, Toronto Hydro plans to install more resilient equipment and infrastructure if a project is planned in an urban flooding area.

## Participation in Industry Discussions

Toronto Hydro continues to be a leader in industry discussions about the awareness of climate change impacts in the electricity generation, transmission and distribution sectors. Specifically, Toronto Hydro contributed to Electricity Canada's Climate Change Adaptation Working Group and the Energy Working Group of Canada's Climate Change Adaptation Platform (organized by NRCan). The purpose of these working groups is to help increase the energy sector's resilience to the effects of climate change. Toronto Hydro has continued its leadership on these committees by sharing lessons learned from the adaptation planning measures described above with the Electricity Canada working group.

### Extreme Weather

Toronto experiences a wide range of significant climate hazards. Human-caused climate change is expected to increase the number of longer-lasting heatwaves and storms, as well as more extreme cold, wind, ice and rain.<sup>15</sup> The City's First Resilience Strategy calls for the City and the critical infrastructure owners operating within Toronto to adapt in the face of these chronic stresses and the acute shocks they bring.<sup>16</sup>

In 2022, Toronto Hydro responded to two extreme weather events. The timely and effective response to these events has been attributed to the proactive work of dedicated employees, as well as to Toronto Hydro's Disaster Preparedness Management (DPM) program.

<sup>&</sup>lt;sup>14</sup> Page 50 of https://www.toronto.ca/ext/digital\_comm/pdfs/resilience-office/toronto-resilience-strategy.pdf

<sup>15</sup> Page 91 of https://www.toronto.ca/ext/digital\_comm/pdfs/resilience-office/toronto-resilience-strategy.pdf

<sup>16</sup> https://www.toronto.ca/wp-content/uploads/2019/05/97c7-Toronto-Resilience-Strategy-One-Page-Brief.pdf

## Disaster Preparedness Management (DPM) Program

In addition to increasing the physical resiliency of the grid to the impacts of extreme weather events, Toronto Hydro continues to develop its DPM program to improve disaster/emergency response outcomes. The DPM program involves continued implementation of a comprehensive and industry-leading disaster readiness program that:

- Enhances Toronto Hydro's ability to plan for and operate during a large-scale emergency and/or disaster
- Ensures effective communication with customers and external stakeholders in anticipation of, during and following an incident
- Minimizes operational and financial impacts of disaster-related disruptions on Toronto Hydro's customers and operations

## **Emergency Management & Business Continuity**

Toronto Hydro's Emergency Management & Business Continuity (EM&BC) team is the custodian of the DPM program and is responsible for:

- 1. Designing, developing, implementing, sustaining and enhancing the DPM program in the face of a changing risk environment in the city of Toronto, which includes the following:
  - Employee emergency response readiness
  - Facility/system emergency response readiness
  - Stakeholder relationship management
- 2. Coordinating program activities and aligning emergency management and business continuity activities both internally and with external stakeholders (e.g. the City's Office of Emergency Management, Hydro One, the IESO, etc.).
- 3. Promoting a culture of resilience at Toronto Hydro.

### Employee Emergency Response Readiness

Training and emergency exercises are critical for ensuring Toronto Hydro is ready to respond to an emergency. The EM&BC team has made it a priority to integrate Ontario's *Incident Management System* emergency response methodology into the Company's Emergency Response Organization (ERO) framework. The majority of Toronto Hydro's senior management and professional employees have received formal training on their functions within the ERO and on how Toronto Hydro would transition into incident response using the ERO under emergency conditions.

The training program is administered through a Learning Management System (LMS) and Enterprise Resource Planning System. All employees at Toronto Hydro are assigned emergency roles that correspond to pre-assigned e-training curricula in the LMS. The LMS-based training is complemented by exercises for select emergency roles (based on the complexity of the role). Training data is captured and updated on a monthly basis through the EM&BC Emergency Role Readiness Key Performance Indicator to ensure that minimum training thresholds are continually met.

The ERO framework was reviewed and adjusted to reflect the re-alignment of resources and incidents occurring in 2022. These adjustments were made to ensure an effective and flexible approach to best leverage the organization's resource skillsets and ensure an effective span of control for any incident.

Additionally, the ERO framework has been tested through real-life scenarios, which has allowed Toronto Hydro to improve response and recovery efforts. In 2022, the EM&BC team continued to test Toronto Hydro's response capabilities through real-time response to the COVID-19 pandemic, the May Derecho Storm and the December Winter Storm.

At the outset of the COVID-19 pandemic, Toronto Hydro mobilized immediately to protect its workforce and the public while continuing to provide safe and reliable delivery of power throughout the city of Toronto. In recognition of its response to COVID-19, Toronto Hydro received the Most Effective Recovery Award from the Business Continuity Institute (BCI) Americas. The BCI, a global organization of business continuity and resilience professionals representing more than 100 countries worldwide, gives this award to an organization that was significantly impacted by an incident or crisis but managed to recover and demonstrate resilience.

In 2022, the rollout of Toronto Hydro's Business Continuity Management (BCM) program accelerated and was expanded to all operations departments. The program framework and multi-year rollout plan was developed and approved. Software was implemented and customized to streamline the BCM process by facilitating the effective identification and mitigation of risks relating to departmental business continuity functions. This project was aligned with the IT Disaster Recovery program, creating a single unified system.

## Facility/System Emergency Response Readiness

In 2022, Toronto Hydro continued to build on improvements to emergency response systems. This included introducing/optimizing several response information management systems that are used to facilitate effective extreme weather event response. These systems are operational and form the core of the Company's weather monitoring.

- **Outage Management Application:** A damage assessment application that enables damage assessment teams to more easily submit damage notices to dispatch personnel during storm response for resolution
- **Weather Prediction Tool:** High-precision weather forecasting and predictive damage modeling tool that enables Toronto Hydro to make more accurate response-resourcing estimates

## Stakeholder Relationship Management

Toronto Hydro maintains close working relationships with the City of Toronto and industry partners to ensure cooperative structures are in place to carry out safe and effective response. These include relationships with first responders and City of Toronto agencies, as well as with regional utility partners.

### City Emergency Management

Toronto Hydro is a member of the City's Emergency Management Program Committee and Emergency Management Working Group. As a member of these groups, Toronto Hydro actively participates in planning/preparing for community-wide response to emergencies impacting the city of Toronto. The groups encompass all agencies, boards, commissions and key partners who play a role in major emergency response within the city. Some of these include:

- The City's Office of Emergency Management
- Toronto Water
- Toronto Fire Services
- Toronto Police Services
- Toronto Emergency Medical Services
- Toronto Transit Commission (TTC)
- Toronto and Region Conservation Authority

### Utility Partner Relationship Management

Restoring power after a major storm is a complex task, and timely restoration requires significant logistical expertise, along with skilled line workers and specialized equipment. Electric companies affected by significant outages often turn to the industry's mutual assistance network – a voluntary partnership of electric companies from across the country – to help speed up restoration. In 2022, Toronto Hydro provided mutual aid to Hydro Ottawa after the major derecho windstorm. The storm resulted in severe damages and numerous power outages to thousands of residents. Toronto Hydro employees supported in the re-building and installation of over 20,000 meters of overhead wire spanning over 80 poles, across three different work sites.

Mutual assistance is an essential part of the electric power industry's service restoration process and contingency planning. The mutual assistance network is a cornerstone of electric utility operations during emergencies.<sup>17</sup> Toronto Hydro is a member of three major mutual assistance groups:

- 1. Ontario Mutual Assistance Group (OnMAG): Toronto Hydro and Hydro One have partnered with Electricity Canada to establish an Ontario-specific mutual assistance group for Ontario's Local Distribution Companies. The aim of this group is to bolster capabilities within the province to respond to province-specific emergencies. The OnMAG is no longer in its pilot phase and is now operationalized as the official Mutual Assistance group for Ontario.
- 2. North Atlantic Mutual Assistance Group (NAMAG): The NAMAG is a group of over 30 utilities from across northeastern North America. These utilities work together during major disruptive events to exchange resources and/or internationally during large-scale emergencies.
- **3. Canadian Mutual Assistance Group (CanMAG):** The CanMAG consists of Canadian electricity industry companies and is coordinated through Electricity Canada. The purpose is for these companies to work together during emergencies including, but not limited to, those caused by storms and natural disasters.

21

<sup>17</sup> https://www.eei.org/issues-and-policy/reliability-emergency-response

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"Disaster Preparedness Management Program". The Forward-Looking Information is subject to risks, uncertainties and other factors that could cause actual results to differ materially from historical results or results anticipated by the Forward-Looking Information. The factors which could cause results or events to differ from current expectations are discussed in sections entitled "Forward-Looking Information" and "Risk Factors" in Toronto Hydro Corporation's annual information form ("AIF") and the sections entitled "Forward-Looking Information" and "Risk Management and Risk Factors" in Toronto Hydro Corporation's management's discussion and analysis ("MD&A"), which are available electronically at www.sedar.com. Toronto Hydro cautions that this list of factors is not exclusive. All Forward-Looking Information in these materials is qualified in its entirety by the above cautionary statements and, except as required by law, Toronto Hydro undertakes no obligation to revise or update any Forward-Looking Information as a result of new information, future events or otherwise after the date hereof.