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I am excited to share this "**Report on Progress**" publication with you. Over the years, the electricity industry has gone through many changes and it has become more and more complex. Regardless of the complexity on our side of the business, our commitment to you is to provide a safe, reliable supply of power while empowering you by developing programs and services that give you more flexibility in the services we offer. Our employees are encouraged to be innovative in developing new programs and processes in all areas of the business and this report gives us the opportunity to show you some of the major accomplishments that happen - behind the scenes - to make your utility the best it can be.





Customers who believe London Hydro provides a highly reliable service



A majority of surveyed customers prefer a proactive strategy for replacing equipment to ensure reliable power, as opposed to a run-to-failure strategy.

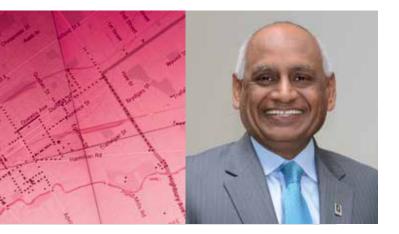
Empowering You For 17 years, London Hydro has been conducting an annual Customer Satisfaction Survey to gain insight into customer perceptions.

London Hydro consistently outperforms Ontario local distribution companies on most measures of satisfaction. 92% of customers believe London Hydro provides a highly reliable service, and 87% of respondents perceive that London Hydro provides accurate billing. 86% perceive that London Hydro provides quality service.

Overall, London Hydro had a score of "A", with an "A+" in power quality and reliability, up from 2014 results.

We encourage customers to provide feedback, and continually strive to enhance services, deploy customerfriendly technologies and be a leading utility in Ontario.

VINAY SHARMA, CEO



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Customer Services



By conducting annual Customer Satisfaction Surveys, monitoring phone calls, emails and having conversations with customers, London Hydro is able to continually improve programs and services.

As an example, when time-of-use rates were introduced, customers needed a better way of understanding how and when they were consuming electricity in order to shift usage when possible to off-peak time periods. This led to the development of MyLondonHydro, which provides customers secure, 24/7 access to their consumption data; complete with detailed time-of-use information.

New features include payment arrangements, payment notifications, move in - move out.



Customer Incentive Program

42,911,965 kWh of energy saved (equivalent annual consumption of 4,400 homes)

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this program.



Going one step further, London Hydro incorporated fire safety and water conservation into the program, resulting in thousands of customers receiving water saving shower heads and toilet repair kits, as well as upgraded smoke alarms provided by the London Fire Department.

As technology continues to usher in opportunities for energy usage and conservation, London Hydro recognized that an integral part of their future relationship with customers would rely on the ability to connect with customers through technology. This led to the creation of a truly innovative program that is the first ever in North America for a utility company.

As incentive for switching to paperless billing, clients received Aeroplan Miles, and would continue to receive them with each successive paperless bill. To date, London Hydro has won

> London Fire Depatrment, Salvation Army and London Hydro

London Hydro also won an award for their energy conservation programs. In this particular program, London Hydro partnered with the Salvation Army, the London Food Bank and a community resource to access low income participants who were pre-qualified for emergency financial assistance programs.

Rebuilding London Hydro's Infrastructure

London Hydro's five major programs have been designed to help rebuild the existing equipment and infrastructure to ensure that there is a reliable and safe supply of electricity for many years to come.

Rebuilding Where We Live

London Hydro's infrastructure is quite expansive. Some vintage pole lines and underground cables that date back to the 1970's and 80's are being upgraded with modern 27.6kV components with minimal disruption to property owners and as little inconvenience as possible to customers.

Enabling Growth and Development

London Hydro is relocating poles, lines, underground structures and cables for road widening. New circuits will also be built which help supply electricity to foster new commercial and residential growth. (average # of new commercial and residential customers to be added here)

Hardening the Electrical Grid

Building new overhead and new underground circuits to better withstand inclement weather will reduce outages and provide an emergency backup supply allowing London Hydro to reroute when outages occur to restore power as quickly as possible.

Building a Smarter Network

London Hydro has been installing automatic and/or computer controlled measuring and switching devices. The new smart grid will minimize outage duration and increase grid automation. This investment will also improve the system's performance and also provide prompt, continually analyzed grid performance for quicker isolation of failure points to maintain the system's integrity.

Revitalizing Our Downtown

London Hydro will be upgrading the existing 1950's vintage 13.8kV equipment with modern 27.6kV components all supported by the new Hydro One transformer station.

3,364 Kilometers of overhead and underground cables

34 Local substations 8699 Smart-Grid Interfaces Large transformer stations The cost of the 5 programs equals about \$25 million per year, which equates to a cost of about \$9 per year for the average customer Average residential bill is \$150 The reliability of supply in London is very good at the present time by investing prudently now ensures high availability as the city and energy needs increase

The majority of London Hydro's customers that were surveyed prefer a proactive strategy for replacing equipment to ensure reliable power instead of run-to-failure

London Hydro's operating costs account for approximately 18% of an average monthly electricity bill

Getting the Lead Out

London Hydro has taken steps to remove lead from London's electricity distribution network by investing in new cable technologies that allow lead covered cables to be replaced with a modern alternative.

Improvements to the Lead Control Program were made following third party assessments of the health and safety of existing lead protocols. Changes included:

- Design of a new lead work area
- Changes to work trucks
- New protocols for working with lead in any setting
- Increases in safety for workers and the public

By standardizing the safety measures for working with lead, the safety of employees and the public has been greatly increased.



A new mechanical

harmful lead fumes.

crimping tool eliminates

the need to "sweat" the lead, which releases



Environmental Leadership Award



London Hydro hosted the Let's Get the Lead Out Forum, which attracted 50 industry professionals from across North America.

INSULATING PP J4



Since digging up and replacing the old cable would require tremendous financial investment and lead to unacceptably long power interruptions, silicone injection has been identified as an efficient and effective alternative solution for all cross linked polyethylene insulated power cable (XLPE) rehabilitation projects.

Based on the rate of depreciation and cable life expectancy, London Hydro identified the need to replace 50 km of cable per year. London Hydro's experience has shown that silicone injection has extended the life of medium voltage cable by up to 40 years.

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chnolog an aging infrastructure

Improving reliability is paramount for London Hydro's customers, and failure of the old, medium voltage cable used in London's residential subdivisions has been identified as a major cause of service interruptions.



London Hydro became the first and only utility to receive the Green Button Certification from UL (Underwriters' Laboratories)

Empowering Customers through **New Technology** and **Apps**

Green Button started with the simple idea that energy data belongs to the customer and they should be able to access and share that data in a meaningful way.

It establishes a common language for that data to be encoded in and given to third parties like mobile and web-based applications.

In 2015, London Hydro took its leadership in technology to new heights by becoming a founding member and Chair of the Green Button Alliance.

Green Button applications are revolutionizing the way consumers can interact with their utility information and empowering them to make changes in response to timely, relevant and actionable information.

The Green Button Alliance is seeking to establish Green Button as the standard used across the utility industry for securely moving utility information from the company to third party apps.

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These applications enable you to analyze and plan energy consumption, potentially saving you money.

The MyLondonHydro online customer portal is powered by Green Button data. MyLondon Hydro gives you the ability to access your usage information anytime, anywhere.

HomeBeat third party app.



London Hydro employees developed 🛃 London Hydi 3 smart apps to improve business processes and access to information. Using the Incident/Deficiency Reporting

App, employees can report the location and the urgency of an incident or equipment, providing both a description and pictures, and forward the information to the relevant departments. so that action can be taken.







any issues early on.

Opened in early 2015, it has been testing smart meters to ensure their safety and accuracy, identifying any malfunctions that could affect residential or commercial customers' meter reading data. The Validation Test Bench can even be set to run tests automatically, which reduces human involvement and potential error.

London Hydro has been certified by Measurement Canada to verify and seal electricity meters since 1999.



Zapple is London Hydro's proprietary Wellness and Safety App that gives employees immediate access to awide range of health and safety information including procedures, resources and emergency contact information.

As technology advances to give consumers more control over their data through initiatives like the Green Button program, reliance on the data being generated by smart meters becomes more and more crucial. London Hydro's Validation Test Bench is designed to verify the efficacy of the meter data and identify

> Employees who enter substations for non-electrical reasons use the *Log Presence App* on their smartphones to notify the Control Room of their presence without taking Operators away from high priority switching work.



London Hydro's Interval Data Centre enables the Thames Valley District School Board to view the electricity usage data for over 150 schools across 7 Local Distribution Companies. This service saves time and money by giving us access to all our critical electricity data in one spot.

> MICHAEL COLQUHOUN, Energy Management Coordinator, TVDSB

Global Adjustment	1, 2016 - Jan 31, 2016)	\$217.61
15225.47 kWh x \$0.08423/kWh (Jan 2016)	1, 2016 - Jan 31,	\$1,282.45
	TOTAL	S1 500 00

	TOTAL	\$1,500.06
DELIVER	Υr	
Distribution Fixed 100.00% of month x \$154.54/month (Jan 1, 2 2016)	1016 - Jun 31,	\$154.54
Distribution Variable		\$117.76

Real Solutions to Real Problems

Adjustment Factor Charge (GA) \$52.51 TOTAL

OTHER

\$89.83

5121.59

Regulatory Charges

The Green Button Program enabled London Hydro to create new Apps and tools for commercial and industrial customers. The TVDSB now enjoys the benefits of managing their consumption, bills and energy conservation for all schools across their region through the IDC online tool.



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Peak D

Power

Energy App for Industrial and Commercial Customers

London Hydro collaborates with industrial and commercial customers to understand their needs in managing their energy accounts and usage. As a result London Hydro created a mobile App that provides a unique solution to allow these customer to monitor and manage their energy consumption from the shop floor.

The knowledge we can gain from the data is enormous and having it online is a great asset.

> MARY QUINTANA, Facilities Management, Western University



Energy App for Entertainment Venues

In order to proactively manage the energy needs for different types and sizes of events, London Hydro worked closely with Budweiser Gardens and Western University Computer Science students to develop a predictive model that helps to determine electricity costs based on specific parameters for each event through a new App. This approach will allow entertainment and other venues to accurately estimate future electricity costs.

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Donated

to over

In 2015, employees donated over \$28,000 through the Employee Community Charity Organization to over 35 charities, many of which are local. This program makes it easy for employees to donate through payroll deductions to the charity of their choice.

Employees also donate their time and money to different events and fundraisers throughout the year. The London Food Bank and the Christmas Hamper Toy Program are two of the programs that receive substantial donations from the employees each year.



Volunteering, Donating and Serving the Community



Environmental awareness is top of mind in daily operations. In fact, London Hydro has participated in the Global Reporting Initiative for the past two years, tracking and reducing their footprint wherever possible. Earth Day is a day for employees and their families to take part in cleaning up along the river and in Thames and Carfrae Parks.



The Power of Electricity program was developed to help students understand the value of electrical energy in our lives and the role it plays in our lifestyle and economy.

The You'll Make a World of Difference program teaches energy conservation to grade 5 students in accordance with their Science and Technology curriculum.

The Electrical Safety Program aims to teach children from grades three through eight about the dangers of electricity and what to do if an electrical accident occurs.







For over 30 years, London Hydro has worked with the Thames Valley District School Board and the London District Catholic School Board to develop educational programs and teaching guides to help children in grades three through eight learn about energy, electricity safety and conservation.

Safety is a Top Priority

In the last several years, London Hydro has proven itself to be a leader on many fronts. First and foremost is the focus on safety for our employees and the public. The company has received recognition for the safety culture it has created with its employees through communication safety programs and safety training. A three-year health and safety strategic plan sets the pace for continued and improved safety initiative that employees have embraced with "Safety Starts with ME." The strategy includes a list of specific objectives that follow the code: Communication, Outreach, Development and Engagement.

Through a public safety awareness survey Londoners scored 84% on their knowledge of electrical safety.

London Hydro's emphasis on workplace safety has resulted in several awards, including the Infrastructure Health and Safety Association President's Award and the Canada's Safest Employer Award. No wonder 89% of customers believe safety is a top priority for London Hydro.



employees value a balanced To help employees achieve and mental health awareness training for all employees.

President Award - 1,000,000 hours with no time loss for injuries Canada's Safest Employers 2014 and 2015 • ESA Ontario Electrical Safety Award Worker Safety ESA Ontario Electrical Safety Award for Powerline Safety Electrical Business Magazine - Safety Champion Award



of customers believe safety is a tor

for London Hydro.

London Hydro recognizes that work-home life and feeling healthy. these goals London Hydro offers wellness programs that include ergonomics, stress management





Electrifying the Children's Museum

Children are challenged to create a circuit that can make sounds and produce light by moving various blocks around an interactive model

London Hydro has partnered with the London Children's Museum to develop and display the "You'll Make a World of Difference" exhibit. The first of three phases opened in June 2015. Phase 2 opened in December 2015 and Phase 3 is coming in 2016.

Phase 1 of this interactive exhibit shows the difference between traditional incandescent light bulbs and LED light bulbs.

Visitors can learn about the flow of electricity through circuits now that Phase 2 of this exhibit is open. The interactive model allows children to move various blocks with buzzers, lights and motors around the board and connect them to form a large circuit.

Phase 3 will educate children - and their parents - on the importance of conservation.



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