

Scorecard - London Hydro Inc.

Performance Outcomes	Performance Categories	Measures	2014	2015	2016	2017	2018	Trend	Target		
									Industry	Distributor	
<b>Customer Focus</b> Services are provided in a manner that responds to identified customer preferences.	Service Quality	New Residential/Small Business Services Connected on Time	100.00%	97.60%	96.60%	97.56%	99.48%		90.00%		
		Scheduled Appointments Met On Time	99.80%	100.00%	99.90%	99.87%	100.00%		90.00%		
		Telephone Calls Answered On Time	64.80%	68.00%	67.00%	68.57%	70.33%		65.00%		
	Customer Satisfaction	First Contact Resolution	99.7%	99.2%	99.5%	99.6%	99.7				
		Billing Accuracy	99.28%	98.34%	99.71%	99.83%	99.76%		98.00%		
		Customer Satisfaction Survey Results	A	A	A	A	A				
<b>Operational Effectiveness</b> Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	Safety	Level of Public Awareness		84.00%	84.00%	82.00%	83.00%				
		Level of Compliance with Ontario Regulation 22/04 <sup>1</sup>	C	C	C	C	C			C	
		Serious Electrical Incident Index	Number of General Public Incidents	0	3	2	1	3			1
			Rate per 10, 100, 1000 km of line	0.000	1.029	0.698	0.349	1.040			0.438
	System Reliability	Average Number of Hours that Power to a Customer is Interrupted <sup>2</sup>	0.98	0.93	0.97	0.93	0.82			0.92	
		Average Number of Times that Power to a Customer is Interrupted <sup>2</sup>	1.21	1.08	1.03	1.00	1.40			1.14	
	Asset Management	Distribution System Plan Implementation Progress	In Progress	In Progress	In Progress	Above Budget	Above Budget				
	Cost Control	Efficiency Assessment	2	2	2	3	3				
		Total Cost per Customer <sup>3</sup>	\$477	\$505	\$521	\$516	\$552				
		Total Cost per Km of Line <sup>3</sup>	\$24,946	\$27,149	\$28,281	\$28,106	\$28,955				
<b>Public Policy Responsiveness</b> Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	Conservation & Demand Management	Net Cumulative Energy Savings <sup>4</sup>		14.51%	32.45%	63.35%	87.00%			196.66 GWh	
	Connection of Renewable Generation	Renewable Generation Connection Impact Assessments Completed On Time	100.00%	90.91%	85.71%	100.00%	100.00%				
		New Micro-embedded Generation Facilities Connected On Time	100.00%	90.74%	91.43%	100.00%	100.00%		90.00%		
<b>Financial Performance</b> Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios	Liquidity: Current Ratio (Current Assets/Current Liabilities)	1.23	1.17	1.31	1.31	1.27				
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio	0.64	0.66	0.74	0.74	0.84				
		Profitability: Regulatory Return on Equity	Deemed (included in rates)	8.98%	8.98%	8.98%	8.78%	8.78%			
			Achieved	9.10%	7.52%	5.99%	9.06%	10.08%			

1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).  
 2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.  
 3. A benchmarking analysis determines the total cost figures from the distributor's reported information.  
 4. The CDM measure is based on the 2015-2020 Conservation First Framework. 2018 results are based on the IESO's unverified savings values contained in the March 2019 Participation and Cost Report.

**Legend:**

5-year trend  
 up down flat

Current year  
 target met target not met

# 2018 Scorecard Management Discussion and Analysis (“2018 Scorecard MD&A”)

The link below provides a document titled “Scorecard - Performance Measure Descriptions” that has the technical definition, plain language description and how the measure may be compared for each of the Scorecard’s measures in the 2018 Scorecard MD&A:

<http://www.ontarioenergyboard.ca/OEB/ Documents/scorecard/Scorecard Performance Measure Descriptions.pdf>

## Scorecard MD&A - General Overview

At London Hydro, fostering innovation in our employees is a corporate priority. Employees in every area of the organization are encouraged to stretch their creative muscles and, by doing so, they have positioned London Hydro as a leader in safety, reliability, technology, cost management, community involvement and energy conservation programming.

The innovation and dedication of our employees led to another successful year in 2018, as London Hydro met or exceeded a majority of the OEB scorecard targets. London Hydro is extremely pleased with the continued improvement of reliability indicators while remaining one of lowest cost utilities in the Province of Ontario.

London Hydro surpassed most OEB targets and is proud of the significant advances in customer focus, operational effectiveness, public policy responsiveness and financial performance it has made in 2018. The following particular achievements helped us reduce or mitigate customer rates, improve safety or enhance the customer experience:

### Customer Focus

Maintaining an “A” rating in our customer satisfaction surveys with an overall customer satisfaction of 92%.

Winning the EDA’s customer service award for creating an online portal that manages residential service connection requests. The new process helped to improve communications, reduce paper and slash service delivery time by 74 percent, while increasing residential service connections by 50 percent.

### Operational Effectiveness

Remaining one of the lowest cost utilities in the Province. London Hydro was able to maintain approximately the same overall cost in 2018 compared to the previous year, while increasing the number of customers serviced as the City of London continues to grow.

This resulted in a reduction of the cost per customer compared to the previous year.

Leading the way as an early adopter of emerging technologies to deliver “mobile first” open standards-based Cloud solutions to our customers. London Hydro developed the “Trickl” App to test real-time energy usage monitoring and device control through the Green Button platform to help customers better understand and manage their energy usage for a pilot group of customers. Continuing our trend of improvement in SAIFI and SAIDI reliability metrics

## **Public Policy Responsiveness**

Partnership with a neighbouring utility to improve efficiencies in the delivery of CDM programs

London Hydro teamed up with the London and Middlesex Housing Corporation to upgrade in suite interior lighting to LED lamps. The program morphed into a province wide initiative for what is believed to be the largest in-suite lamp upgrade in North America installing a total of 1,172,746 LED lamps while recycling all of the outgoing CFLS and incandescent lamps..

Providing funding for the Low-Income Energy Assistance Program (LEAP) in the amount of \$200,000 in 2018

Giving \$5,000,000 in dividends to our shareholder in 2018

## **Service Quality**

- **New Residential/Small Business Services Connected on Time**

In 2018, London Hydro connected 99.48% of its 2312 eligible low-voltage residential and small business customers (those utilizing connections under 750 volts) to its system within the five-day timeline prescribed by the Ontario Energy Board (OEB). This score exceeds the OEB-mandated threshold of 90%. London Hydro is consistently able to achieve high levels of compliance in this area due to the existing workflow processes and computer systems that are used to monitor the status of each job. London Hydro also previously implemented an evening shift service truck, which has resulted in improved flexibility for connecting new customers.

- **Scheduled Appointments Met On Time**

London Hydro scheduled 348 appointments with its customers in 2018 to complete work requested by customers or by customers' representatives. The utility met 100% of these appointments on time, which significantly exceeds the industry target of 90%. The duties

and obligations of this requirement are well communicated to and known by London Hydro's staff, which has contributed to London Hydro's success in this area.

- **Telephone Calls Answered On Time**

In 2018, 145,788 calls were made to London Hydro of which 102,529 were answered in 30 seconds or less by our Customer Service Representatives, representing an average of 600 calls a day. We continue to meet the required percentage of calls answered on time.

In 2014, London Hydro engaged a call over-flow company to assist in call-handling after the implementation of our new online, self-service tool, MyLondonHydro. The drivers to enhance our self-serve online portal included the increase in email correspondence and customer requests for additional online tools to manage interactions 24 hours a day, seven days a week. London Hydro anticipates that telephone call volumes will decline as more customer continue to utilize this tool. In 2015 and 2016, this engagement with the call over-flow partner continued as further enhancements to our customer self-serve web continued.

London Hydro is committed to maintaining exceptional customer care and continuing to find ways to improve the customer experience. London Hydro's approach is to balance customer preferences with regulatory requirements, when necessary. For example, as a best practice, London Hydro's maintains the prescribed 65% metric for "Calls Answered on Time." While we could try to surpass that metric by hiring more Customer Service representatives, our customers have told us that it is more important to keep costs low; therefore, we focus on meeting this objective rather than surpassing it.

## Customer Satisfaction

- **First Contact Resolution**

London Hydro strives to serve customers in a friendly and professional manner and to answer their questions and resolve their issues within the first call. In 2018, London Hydro had great success on the First Contact Resolution measure, scoring over 99%. Our success can be attributed to a number of factors including our intensive training program for new hires and our dedicated resource for gap training and process management. We also use call monitoring tools to record and archive every call to allow us to evaluate our staff's call handling, and each month we review one randomly selected call with each CSR. Any anomalies or customer escalations are reviewed when warranted. All customer interactions are logged in our CIS System, including any escalations. We use the results of our annual Customer Satisfaction Survey to learn what is working and what areas require improvement.

- **Billing Accuracy**

In 2018, London Hydro distributed an average of 155,400 invoices per month and achieved an overall billing accuracy rate of 99.76%. To supplement our validating, estimating and editing process, our CIS system uses audits and controls to ensure the accuracy of bill calculations. Any billing irregularities are investigated, analyzed and evaluated for impacts. All changes are verified and tested by our Subject Matter Experts. This dedicated team also monitors and manages bill print exceptions. As an additional check, we audit the value of the bill, and by setting a “threshold” amount for each billing class of customers, we ensure no excessive/irregular invoice is distributed without validation.

- **Customer Satisfaction Survey Results**

For the past 20 years, London Hydro Inc. has engaged a third party to conduct a Customer Satisfaction Survey. The purpose of London Hydro’s involvement in these surveys is to determine a benchmark for measuring the level of satisfaction our customers experience with all areas of service and, equally important, to identify any areas for improvement. The survey asks a core set of questions that provides benchmarks year-to-year, such as overall satisfaction with London Hydro, reliability of service, outages, billing issues and corporate image. Additionally, London Hydro provides a second set of questions regarding specific current issues to identify and respond to new needs or expectations of the customers. The information gathered from the survey is then carefully considered and included in the development or enhancement of both London Hydro’s Strategic Plan and Corporate Communications Plan.

In 2018 London Hydro’s Customer Satisfaction results were equal to or better than Provincial and National counterparts, and, on most measures, London Hydro demonstrated improvement over the previous year’s score. Customers’ overall satisfaction rating for London Hydro was 92%. On reliability, London Hydro scored 90%

Again, this survey is a valuable tool for gauging customers’ awareness of changes in the industry, their level of satisfaction with the services London Hydro provides, their insights into capital programs, and for identifying any areas of improvement to services. London Hydro’s goal is to provide service excellence in all we do, and we plan to continue surveying our customers to benchmark our service levels and help us continue to develop service enhancements.

## **Safety**

- **Public Safety**

- **Component A – Public Awareness of Electrical Safety**

In 2018, London Hydro undertook major safety awareness efforts, including

- the School Electricity Safety Program, which is presented to over 10,000 students annually;

- the Power of Electricity, a curriculum-based program that involves training teachers to present the program to grades 5/6 each year,
- media coverage for electrical safety-related issues and incidents in the community;
- pole top rescue training; and
- support and presentations at the Safety Village, numerous summer camps and other community event presentations.

In 2017, London Hydro conducted the second public awareness survey (developed by the ESA) among a representative sample of Londoners. The survey helps gauge the public's awareness of fundamental safety precautions related to electricity. London Hydro's 2017 Public Safety Awareness Index Score was 82%.

- **Component B – Compliance with Ontario Regulation 22/04**

Over the past five years, London Hydro has been found to be compliant with Ontario Regulation 22/04 (Electrical Distribution Safety). This success was achieved by London Hydro's strong commitment to safety and adherence to company policies, procedures and Safe Work Practices. The Electrical Distribution Safety Regulation (Ontario Regulation 22/04) establishes objectives-based electrical safety requirements for the design, construction, and maintenance of electrical distribution systems owned by licensed distributors. Specifically, the regulation requires the approval of equipment, plans, specifications and inspection of construction before they are put into service.

The Electrical Safety Authority (ESA) performs Due Diligence Inspections (DDI) throughout the year to ensure utilities remain compliant with the objectives set out in Ontario Regulation 22/04. London Hydro has a process in place for responding to DDI's and for reporting back to the ESA on the action plans taken within the specified time period. In 2018, London Hydro was found to be in compliance on all DDIs conducted by ESA.

- **Component C – Serious Electrical Incident Index**

London Hydro experienced three reportable incidents for the 2018 reporting year. These electrical incidents did not result in injury, either to a worker or to a member of the public. In order to maintain the safety and reliability of the distribution grid, London Hydro conducts an investigation of all incidents of this nature. Two of the incidents were caused by severe weather events. The third incident was caused by the failure of a London Hydro owned piece of equipment which was replaced as part of London Hydro's existing capital replacement program.

Through analysis and review of these incidents, London Hydro has implemented modifications to engineering designs and/or targeted replacement programs where appropriate to ensure continued safe and reliable distribution of electricity to our customers.

## System Reliability

- **Average Number of Hours that Power to a Customer is Interrupted**

In 2018, London Hydro had an annual performance of 0.82 for the average number of hours that power to a customer was interrupted. London Hydro's System Average Interruption Duration Index (SAIDI) 5-year rolling average performance, without contribution from Loss of Supply and Major Event Days, was 0.93, which is slightly above the target of 0.92 by 0.01 hours (36 seconds).

A large percentage of the hours that power to customers was interrupted is related to scheduled outages, which are necessary to complete infrastructure improvement projects and to maintain the system. This work ensures that the system will continue to be reliable in the future.

- **Average Number of Times that Power to a Customer is Interrupted**

In 2018, London Hydro had an annual performance of 1.40 for the average number of times that power to a customer was interrupted. London Hydro's System Average Interruption Frequency Index (SAIFI) 5-year rolling average performance, without Loss of Supply and Major Event Days, was 1.14, which meets the target of 1.14.

London Hydro's reliability performance is a clear indicator of our commitment to reliably deliver electricity to our customers. In order to achieve this performance, London Hydro's engineers analyze system events and produce weekly reports, monthly reports, and an annual Quality of Supply report, which includes a feeder by feeder performance analysis. The reports identify system solutions to avoid future interruptions and initiate projects in areas that can be improved. By investing in maintaining infrastructure, we ensure that the system is able to minimize the impact of inclement weather events.

## Asset Management

- **Distribution System Plan Implementation Progress**

London Hydro's DSP implementation is "Above Budget." London Hydro has experienced increased demand for Commercial, (0%), Single Family Residential, (263%), and Multi-Family, (86%) over budget. For Infrastructure projects metrics are in place to ensure that ongoing and new initiatives related to the distribution system are effective. The main performance indicator is the reliability of the system. While the overall system reliability (expressed as SAIDI and SAIFI) is important, London Hydro has refined the outage reporting and analysis to the point where specific outage causes (such as underground primary cable faults) can be tracked before and after implementing a change in remediation (such as introducing silicone cable injection).

For London Hydro's DSP, the following reliability metrics are monitored and used to make annual adjustments to the projects and programs that are in place to make improvements.

Reliability Metric	Purpose & Form	Desired Outcome	Motivation	Related Projects / Programs
System Average Interruption Duration Index (SAIDI) – Equipment Design-Related Outages (outages related to controllable causes such as defective equipment)	SAIDI – EDRO (Equipment Design Related Outages) provides a measure of the reliability of the distribution system as affected by controllable causes. It is calculated using only outages related to controllable causes such as defective equipment.	Stable year-over-year; slight decrease over time in customer minutes of outage	<u>Consumer</u> : Consistent level of reliability for customers; <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages; <u>System Performance</u> : Evidence that assets are performing as expected	Most System Renewal Proj.- 16C1 Feeder Tie; 17C1 Supply to Core; 16B7, 17B7 Installation of Backup Supply; 16B8, 17B8 Installation of Fault Indicators; 16H1, 17H1 Recloser Installation; 16H5, 17H5 Line Status Sensors
System Average Interruption Frequency Index (SAIFI) – Equipment Design Related Outages	SAIFI – EDRO provides a measure of the reliability of the distribution system as affected by controllable causes. It is calculated using only outages related to controllable causes such as defective equipment.	Stable year-over-year; slight decrease over time in number of customers affected by an outage	<u>Consumer</u> : Consistent level of reliability for customers; <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages; <u>System Performance</u> : Evidence that assets are performing as expected	Most System Renewal Projects
Customer Acceptance of Existing Level of Reliability (via surveys)	This metric measures customer acceptance of reliability. Expressed as a percentage of respondents who agree “London Hydro provides consistent, reliable energy”	Consistent year-over-year of majority of responses find existing level of reliability acceptable (90%)	<u>Consumer</u> : Consistent level of reliability for customers	Overall spending on System Renewal and reliability focused projects are kept relatively consistent year-over-year
Number of Faults in Residential Underground Primary Conductor	This metric tracks the quantity of faults on residential underground primary conductor per year to determine if the level of investment in cable injection and rebuilds is effective.	Year-over-year decrease	<u>Consumer</u> : Consistent level of reliability for customers; <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages; <u>System Performance</u> : Evidence that assets are performing as expected	16B1, 17B1 Cable Silicone Injection; 16B2, 17B2 Subdivision Conversions / Rebuilds with Silicone Injection
Number of Outages Caused by Lightning	This metric tracks the quantity of outages caused by lightning each year to determine if lightning mitigation measures are effective.	Year-over-year decrease (relative to the number of lightning flashes)	<u>Consumer</u> : Consistent level of reliability for customers; <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages; <u>System Performance</u> : Evidence that assets are performing as expected	Pre-2016 projects (15G6) to install shield wire and arrestors on critical main feeders; now part of new construction standard for overhead main feeders
Number of Broken Poles (not due to motor vehicle accidents)	This metric tracks the quantity of outages caused by broken poles each year to determine if the pole testing and replacement program is effective.	Stable year-over-year quantity	<u>Consumer</u> : Consistent level of reliability for customers <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages and optimize the lifecycle cost of wood poles <u>System Performance</u> : Evidence that assets are performing as expected	16G1, 17G1 Replace Deteriorating Poles
Number of Pole Fires	This metric tracks the quantity of outages caused by pole fires each year to determine if the pole inspection and replacement program is effective.	Year-over-year decrease	<u>Consumer</u> : Consistent level of reliability for customers <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages and optimize the lifecycle cost of wood poles <u>System Performance</u> : Evidence that assets are performing as expected	16G2, 17G2 Replacement of Poles Susceptible to Pole Fires



Number of Outages due to Sectionalizing Enclosure (SE) Failures	This metric tracks the quantity of outages caused by SE failures each year to determine if the SE inspection and replacement program is effective.	Year-over-year decrease	<u>Consumer</u> : Consistent level of reliability for customers <u>Corporate</u> : Cost effectiveness – prevent costs associated with unplanned outages <u>System Performance</u> : Evidence that assets are performing as expected	16B3, 17B3 Replacement / Removals of SE's
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London Hydro also monitors the overall cost to our customers to ensure competitiveness with our peers and affordable increases year-over-year. The following cost-based metrics provide feedback to our customers and stakeholders regarding our overall cost efficiency.

Cost Metric	Purpose & Form	Desired Outcome	Motivation	Related Projects / Programs
Controllable Cost per Customer	This metric tracks the controllable costs per customer each year to ensure costs are competitive with peers. Values are sourced from OEB Yearbook.	Bottom quartile of all LDCs	<u>Consumer</u> : Customers should see rates competitive with similar sized LDCs <u>Corporate</u> : Feedback to management on cost effectiveness of LDC	Top down budget constraints, System Renewal Projects[1]; 16B8, 17B8 Installation of Fault Indicators & 16H5, 17H5 Line Status Sensors (reduce time required to locate problems)
PEG Efficiency Assessment	This metric measures the LDC's overall efficiency as determined by PEG. Values are sourced from OEB/PEG.	Remain within Group 2 (2 <sup>nd</sup> most efficient)	<u>Consumer</u> : Customers should see rates competitive with similar sized LDCs <u>Corporate</u> : Feedback to management on cost effectiveness of LDC	Top down budget constraints
Annual Distribution Revenue (Residential)	This metric tracks the average annual distribution revenue per residential customer. Values are sourced from OEB yearbook; stats by class tab.	Bottom quartile of all LDCs	<u>Consumer</u> : Customers should see rates competitive with similar sized LDCs <u>Corporate</u> : Feedback to management on cost effectiveness of LDC	Top down budget constraints

Any project valued at \$25,000 or more that comes in over or under budget by 10% or more requires analysis to determine the source of the variance. These variance reports are reviewed by managers to determine if opportunities exist to improve the estimating process and/or project execution process.

Regular meetings with engineering and operations staff are used to provide status reports (red/green/amber) on capital projects and review significant variances. Bi-weekly meetings focus on the project level while monthly meetings focus on the program level. A year-end report is used to assess total variance to budget and actual completion of planned work to budget.

DSP Implementation Metric	Purpose & Form	Desired Outcome	Motivation	Related Projects / Programs
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Utilization of the EASY application (number of crew leaders using application on a regular basis)	Crew leaders are encouraged to take ownership of projects and monitor their costs compared to budget. This metric will track the number of crew leaders using this application to ensure it is effective and user-friendly.	Higher utilization should result in lower variance to budget for capital projects	<u>Corporate</u> : Less variance to budget should assist with keeping costs within budget, resource allocation is optimized <u>Consumer</u> : Meeting budget targets should keep rates stable	All capital projects
Average % Variance to Budget for System Renewal and System Service Projects	This metric measures the variance percentage to budget to determine the accuracy of budgeting and effectiveness of project execution. Calculated as the percent difference in actual annual spending to budget on System Renewal and System Service projects.	Slight improvement each year with ultimate goal of 10% or less	<u>Corporate</u> : Less variance to budget should assist with keeping costs within budget <u>Consumer</u> : Meeting budget targets should keep rates stable	All System Renewal and System Service Projects
Percentage of Actual System Renewal and System Service Projects Completed per Half Year vs Planned	This measures the quantity of actual work vs planned work to determine the effectiveness of the planning and execution of capital projects. Calculated as the percent difference of actual vs planned System Renewal and System Service projects each quarter. Some subjectivity will be used as some projects will span set time periods.	Slight improvement each year with ultimate goal of 100%	<u>Corporate</u> : Less variance to budget should assist with keeping costs within budget <u>Consumer</u> : Meeting budget targets should keep rates stable	All System Renewal and System Service Projects

For customer-focused initiatives, London Hydro monitors the number of customers using each initiative and then adjusts either the promotion of the initiative (so more customers are aware of them) or the actual initiative (to make it more useful to customers).

Customer Participation Metric	Purpose & Form	Desired Outcome	Motivation	Related Projects / Programs
Number of Customers Subscribed to Paperless Billing	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : Easier customer access to billing information <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements
Number of Customers Subscribed to Customer Portals (UCES / MyLondonHydro)	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : Easier customer access to billing information <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	Builders Portal, New Property Management Portal
Number of Customers Subscribed to Outage Notification	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : Better communication with customers on outage status	CE (Customer Engagement) Website Enhancements
Number of Customers on Paperless Billing Enrolled in Aeroplan	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : Travel Rewards for converting to paperless billing; reduced costs to customers over time due to lower OM&A <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements

Customer Participation Metric	Purpose & Form	Desired Outcome	Motivation	Related Projects / Programs
Number of online move-in / move-out / transfer of service requests placed via LH website	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : Services available on-demand, anywhere <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements
Number of Accounts Utilizing Delegate Functionality	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year	<u>Consumer</u> : More flexibility for customers to assign others to be responsible for hydro account, fewer missed or late payments <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements
Number of Budget Billing Sign Ups via MyLondonHydro	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year, decline in quantity and value of late and delinquent accounts	<u>Consumer</u> : Option for customers to assist with budgeting hydro payments <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements
Number Payment Notifications via MyLondonHydro	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year, decline in quantity and value of late and delinquent accounts	<u>Consumer</u> : Reduces the likelihood of late or missing payments and subsequent repercussions <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements
Number Payment Arrangements via MyLondonHydro	This measure will track usage of this website option to determine how many customers find this application useful. Software tracks the number of subscribers.	Gradual Increase in usage year-over-year, decline in quantity and value of late and delinquent accounts	<u>Consumer</u> : Simplifies payment process <u>Corporate</u> : Effectiveness of website development, proper allocation of resources in Customer Service area.	CE (Customer Engagement) Website Enhancements

In addition to these metrics, Google Analytics is used to monitor the number of website visits (total, unique, new, and returning), the percentage of mobile users, average bounce rate and most popular page.

## Cost Control

- **Efficiency Assessment**

The total costs for Ontario local electricity distribution companies are evaluated by the Pacific Economics Group LLC (PEG) on behalf of the OEB to produce a single efficiency ranking. The electricity distributors are divided into five groups based on the magnitude of the difference between their respective individual actual and predicted costs. London Hydro's 2018 results kept us in the Group 3. Group 3 distributors are defined as having actual costs are within +/- 10% of predicted costs. Group 3 is considered average performers – in other words, London Hydro's costs are in the average cost range for distributors in the Province of Ontario. In reviewing the provincial electricity distributors 2018 results, 41% (26 distributors) (2017 - 45% (29 distributors)) of the Ontario distributors were ranked as "average efficiency"; 30% (19 distributors) (2017 - 25% (16 distributors)) were ranked as "more efficient"; 14% (9 distributors) (2017 - 17% (11 distributors)) were ranked as "least efficient."

As previously indicated in our DSP commentary, the most significant factor associated with the increased costs within London Hydro is due to the incremental growth within the City of London. The three year gross spending average of City and Developer works have been \$2.4M and \$10.4M while the amounts in the three preceding years were \$1.9M and \$6.6M, an increase of 22% and 58% respectively. It is London Hydro’s opinion that this incremental spending associated with the growth of the City of London is the primary contributor for moving from tier 2 to tier 3 in 2017.

London Hydro notes that with the passage of time many distributors are challenged with respect to the efficiency measures and are losing ground. London Hydro’s goal is always to advance in the ranking to the “more efficient” group; however, management’s expectation is that London Hydro’s efficiency performance will decline over the next few years, keeping the company in the average efficiency category. While London Hydro works hard to implement efficiencies and maintain costs at or less than inflation, continuing outside influences accelerate operational spending, which is the prime driver in this assessment.

- **Total Cost per Customer**

Total cost per customer is calculated as the sum of the OEB PEG report on London Hydro’s capital and operating costs divided by the total number of customers that London Hydro serves. The cost performance result for 2018 is \$552 /customer (2017 was \$516 /customer) which is a 7.0% increase over 2017.

Per PEG Report	2018	Cost Per Customer	2017	Cost Per Customer
Customers	159,039		157,188	
OM&A Costs	\$37,400,594	\$235	\$35,729,769	\$227
Capital Costs	\$50,450,167	\$317	\$45,328,100	\$289
Total Cost	\$87,850,761	\$552	\$81,057,869	\$516

Similar to most distributors in the province, London Hydro has experienced increases in the total costs required to deliver quality and reliable services to customers. London Hydro’s Total Cost per Customer has increased, on average, by 3.5% (2017 2.2%) per annum over the period 2013 through 2018. Province-wide programs, such as smart meters required for Time of Use pricing, growth in wage and benefits costs for our employees, as well as investments in new information systems technology and the renewal and growth of the distribution system, have all contributed to increased operating and capital costs.

London Hydro will continue to replace distribution assets proactively along a carefully managed timeframe in a manner that balances system risks and customer rate impacts. As was demonstrated in our future 2017 Cost of Service rate application, London Hydro will continue to implement productivity and improvement initiatives to help offset some of the costs associated with future system improvement and enhancements. Customer engagement initiatives will continue in order to ensure customers have an opportunity to share their viewpoint on London Hydro’s capital spending plans. However, as discussed in our efficiency assessment, London Hydro is concerned that continuing public policy initiatives will result in continued cost escalations beyond London Hydro management’s control.

- **Total Cost per Km of Line**

This measure uses the same total cost that is used in the Cost per Customer calculation above. The total cost is divided by the kilometres of line that London Hydro operates to serve its customers. London Hydro's 2018 rate is \$28,955 per km of line, an increase over 2017 due to increased capital spending. London Hydro experienced a moderate level of growth in its total kilometres of lines complemented by moderate annual customer growth rate. This continued modest growth rate provides London Hydro with the ability to fund capital renewal projects and buffers some of the increased operating costs realized through customer growth. As a result, cost per km of line has increased year over year with the increase in capital and operating costs. See the Cost per Customer section above for cost drivers commentary. London Hydro continues to seek innovative solutions to help ensure cost per km of line remains competitive and within acceptable limits to our customers.

Per PEG Report	2018	Cost Per kM of Line	2017	Cost Per kM of Line
kM of Line	3034		2884	
OM&A Costs	\$37,400,594	\$12,327	\$35,729,769	\$12,389
Capital Costs	\$50,450,167	\$16,628	\$45,328,100	\$15,717
Total Cost	\$87,850,761	\$28,955	\$81,057,869	\$28,106

## Conservation & Demand Management

- **Net Cumulative Energy Savings**

As a means of improving the overall effectiveness of both organizations, London Hydro entered into a partnership arrangement with Tillsonburg Hydro for the delivery of CDM programs throughout the 2015-2020 CDM delivery framework, and submitted a Joint CDM Plan to IESO consisting of the following public-domain documents:

- London Hydro Report EM-14-03, Integrated Resource Planning: Forecasts of Energy Efficiency Program Outcomes as a Demand-Side Resource (Volume 1 – Articulation of the Vision); April 2015
- London Hydro Report EM-14-03B, Integrated Resource Planning: Forecasts of Energy Efficiency Program Outcomes as a Demand-Side Resource (Volume 2 – Budget & Resource Plan); April 2015
- London Hydro Report EM-14-03C, Integrated Resource Planning: Forecasts of Energy Efficiency Program Outcomes as a Demand-Side Resource (Volume 3 – Tillsonburg Hydro Element); April 2015

London Hydro's assigned net energy savings target for the current framework was 196.66 GWh.

According to the IESO publication 2018 Final Verified Annual LDC CDM Program Results Report, throughout 2018 London Hydro achieved another 47,338 MWh of net energy savings (persisting to 2020), and has now achieved 63.35% of its 196 GWh target. Consequently, London Hydro is on-track to meet its assigned CDM target (for both London Hydro and Tillsonburg Hydro).

Note: This is consistent with the Environmental Commissioner of Ontario's Annual Energy Conservation Progress Report entitled: Making Connections - Straight Talk About Electricity in Ontario - 2018 Energy Conservation Progress Report, Volume One, wherein it was reported (on page 316) that "LDCs as a whole are on track to achieve the 7 TWh target".

Embedded load displacement generation projects by their very nature are long-term (and can involve some level of unpredictability of in-service date due to the number of steps set forth in the Distribution System Code and number of organizations involved in the process) and have significant associated energy savings. At the time the Joint CDM Plan was formulated, London Hydro did not have information about the likely in-service date of the various generation projects underway, so it assumed a linear adoption (i.e. equal savings each year) whereas, realistically, these savings will be lumpy in nature. Consequently, comparing actual CDM results to the CDM Plan is not entirely meaningful.

## Connection of Renewable Generation

- **Renewable Generation Connection Impact Assessments Completed on Time**

In 2018, London Hydro completed all Connection Impact Assessments within the prescribed time limit of 60 days.

- **New Micro-embedded Generation Facilities Connected On Time**

In the same year, all new Micro-embedded Generation Facilities were connected within the 5 day window stipulated by the OEB

## Financial Ratios

- **Liquidity: Current Ratio (Current Assets/Current Liabilities)**

Current assets represent cash and other assets that are expected to become cash within the next year. Conversely, current liabilities are financial obligations that are anticipated to be paid within a year. A ratio that is greater than 1 may be an indicator that a company is able to meet its financial obligations coming due within the next year. A higher ratio of current assets to current liabilities provides a greater comfort zone since it indicates that current liabilities can be paid, while leaving excess funds for future investments and long-term debt servicing. A ratio of less than 1 could be a signal that a company may not be able to keep up with its upcoming payments, indicating insufficient cash flows from profits or the need for financing.

London Hydro's current ratio is affected by items such as accounts receivable and liabilities for electricity, which can fluctuate significantly, depending on factors including changes in customer consumption and the price of electricity acquired on behalf of customers. Additionally, the timing and extent of capital investments in the London Hydro distribution system can have a significant impact on cash balances. Accordingly, a fluctuation in London Hydro's ratio is not an indicator of stability or financial performance but more a matter of timing and leveling with long-term debt.

The Company's ratio as of December 2018 was 1.27, which has decreased in comparison to the 2017 amount (1.31), but has increased from the last five year average (1.25).

- **Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio**

London Hydro has a capital mix of 46% debt and 54% equity (debt to equity ratio of .84) for 2018. The OEB uses a deemed capital structure of 60% debt and 40% equity (debt to equity ratio of 1.5) when establishing rates.

A debt to equity ratio higher than 1.5 may indicate that the Company will have difficulty obtaining any required debt to finance capital investments and meet working capital requirements. A debt to equity ratio less than 1.5 may be a signal that the Shareholder is not achieving an optimum rate of return, as a portion of their investment is providing a lower yield.

London Hydro's capital mix equips the Company with unused debt capacity making funds readily available. This, in turn, keeps London Hydro in a strong financial position as displayed by the recent Standard & Poor's Rating Services rating of A/Stable.

- **Profitability: Regulatory Return on Equity – Deemed (included in rates)**

London Hydro's current distribution rates were approved by the OEB and include an expected (deemed) regulatory return on equity of 8.78%. The OEB allows a distributor to earn within +/- 3% of the expected return on equity. When a distributor performs outside of this range, the actual performance may trigger a regulatory review of the distributor's revenues and costs structure by the OEB.

- **Profitability: Regulatory Return on Equity – Achieved**

London Hydro submitted a IRM application for new rates effective May 1, 2018. The approved application resulted in a right sizing of our return on equity (ROE) achieved in 2018 of 10.08% from the 2017 value of 9.06%. The achieved ROE is above the deemed ROE of 8.78%.

London Hydro's actual 2018 financial results pretty much mirrored the OEB approved 2017 financial forecast applied for in our 2017 COS application. London Hydro experienced a higher regulatory net income of \$12.4M being \$1.9M or 18.8% higher than approved for in our 2017 COS. However higher than planned capital costs realized depreciates London Hydro's ROE such that the 2018 formulaic deemed equity is \$0.3M (3%) higher than the 2017 COS forecast. The higher net income buoyed over the lower equity causes the slight difference in calculated ROE.

With the filing of the 2017 COS London Hydro anticipated that the declining ROE trend seen in 2016 and prior years would stabilize in 2017. However London Hydro anticipates that future reported ROE balances will continue to decline annually as annual depreciation in future years is expected to be significantly higher than the 2017 COS forecast. London Hydro is facing higher than expected municipal infrastructure and developer driven capital spend demands, which impacts annual depreciation. The ROE decline may be buoyed in part moderately by the 2018 ACM adjustment included in our 2018 IRM application. It is London Hydro's wish not to artificially curtail planned DSP projects to accommodate this unanticipated external demand.

## **Note to Readers of 2018 Scorecard MD&A**

The information provided by distributors on their future performance (or what can be construed as forward-looking information) may be subject to a number of risks, uncertainties and other factors that may cause actual events, conditions or results to differ materially from historical results or those contemplated by the distributor regarding their future performance. Some of the factors that could cause such differences include legislative or regulatory developments, financial market conditions, general economic conditions and the weather. For these reasons, the information on future performance is intended to be management's best judgement on the reporting date of the performance scorecard, and could be markedly different in the future.