

**IN THE MATTER OF** the *Ontario Energy Board Act 1998*, S.O. 1998, c.15,  
(Schedule B);

**AND IN THE MATTER OF** an application by Hydro One Networks Inc. for  
an order approving just and reasonable rates and other charges for  
electricity distribution to effective January 1, 2018 to December 31, 2022.

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**CANADIAN MANUFACTURERS & EXPORTERS (“CME”)  
COMPENDIUM FOR  
HYDRO ONE NETWORKS INC. (“HONI”)  
WITNESS PANEL 3**

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## Canadian Manufacturers & Exporters Interrogatory # 15

### Issue:

Issue 20: Does the application promote and incent appropriate outcomes for existing and future customers including factors such as cost control, system reliability, service quality, and bill impacts?

### Reference:

B1-01-01 Section 1.4 Page: 3 Table 8

### Interrogatory:

a) To the extent possible, please update the values in table 8 – Distribution OEB Scorecard to include the actuals for 2017, and the variance between 2017 actuals and target.

### Response:

a) Provided below is an updated version of Table 8 to include the actuals for 2017, and the variance between 2017 actuals and target. Updated Cost Control measures are not available for 2017 as audited 2017 actuals are not available.

**Table 8 – Distribution OEB Scorecard, including actuals for 2017, and the variance between 2017 actuals and target**

RRFE Outcomes		Historical Results						Actual	Target		
	Measure	2011	2012	2013	2014	2015	2016	2017	2017	2017 Target	Variance
Customer Focus	Customer Satisfaction - Perception Survey %	77%	78%	80%	67%	70%	66%	71%	72%	-1%	74%
	Handling of Unplanned Outages Satisfaction %	81%	79%	78%	75%	76%	75%	76%	76%	0%	77%
	Call Centre Customer Satisfaction %	85%	84%	82%	81%	85%	86%	90%	86%	4%	87%
	My Account Customer Satisfaction %	81%	84%	64%	75%	78%	79%	90%	81%	9%	83%
	Pole Replacement - Gross Cost Per Unit In \$	8,541	8,441	7,824	8,928	8,392	8,350	TBD	8,640	TBD	8,733
Operational Effectiveness	Vegetation Management - Gross Cyclical Cost per km \$**	New Program						TBD	New Program	TBD	3,600
	Station Refurbishments - Net Cost per MVA in \$*	386,000	-	318,000	348,000	500,000	557,000	TBD	461,000	TBD	454,000
	OM&A dollars per customer	456	451	498	551	453	455	TBD	449	TBD	455
	OM&A dollars per km of line**	4,723	4,676	5,109	5,654	4,719	4,773	TBD	4,712	TBD	4,773
	Number of Line Equipment Caused Interruptions	7,681	7,316	7,266	8,311	8,164	7,674	8,786	8,200	586	8,200
	Number of Vegetation Caused Interruptions	6,113	6,953	5,791	6,540	6,944	7,439	7,800	6,900	900	6,500
	Number of Substation Caused Interruptions	159	144	129	158	141	103	123	145	-22	145
	SAIDI - Rural - duration in hours	8.2	8.2	8.1	8.6	9.1	9.1	9.4	9.1	0.3	9.0
	SAIFI - Rural - frequency of outages	3.3	3.3	3.0	3.4	3.4	3.1	3.0	3.4	-0.4	3.4
	SAIDI - Urban - duration in hours	2.7	3.2	2.2	2.8	2.8	2.4	2.4	2.8	-0.4	2.8
	SAIFI - Urban - frequency of outages	1.6	1.7	1.6	2.3	1.4	1.6	1.4	1.7	-0.3	1.7
	Large Customer Interruption Frequency (LDA's) - frequency of outages	New Measure	118	147	228	136	162	162	143	19	143

\*There were no station refurbishment units matching the criteria completed in 2012

\*\*Number of line kms are based on the annual OEB Yearbook of Electricity Distributors' report, with 2017 and 2018 targets based on 2015 line km actuals.

Witness: KIRALY Gregory

## Productivity and Outcome Measures Scorecard

### Distribution System Plan: Productivity and Outcome Measures

			Historical Results						Target	
RRFE Outcomes		Measure	2011	2012	2013	2014	2015	2016	2017	2018
Customer Focus	Customer Satisfaction	Customer Satisfaction - Perception Survey %	77%	78%	80%	67%	70%	66%	72%	74%
		Handling of Unplanned Outages Satisfaction %	81%	79%	78%	75%	76%	75%	76%	77%
		Call Centre Customer Satisfaction %	85%	84%	82%	81%	85%	86%	86%	87%
		My Account Customer Satisfaction %	81%	84%	64%	75%	78%	79%	81%	83%
Operational Effectiveness	Cost Control	Pole Replacement - Gross Cost Per Unit in \$	8,541	8,441	7,824	8,928	8,392	8,350	8,640	8,733
		Vegetation Management - Gross Cyclical Cost per				New Program				3,600
		Station Refurbishments - Net Cost per MVA in \$*	386,000	-	318,000	348,000	500,000	557,000	461,000	454,000
		OM&A dollars per customer	456	451	498	551	453	455	449	455
	System Reliability	OM&A dollars per km of line	4,723	4,676	5,109	5,654	4,719	4,773	4,712	4,773
		Number of Line Equipment Caused Interruptions	7,681	7,316	7,266	8,311	8,164	7,674	8,200	8,200
		Number of Vegetation Caused Interruptions	6,113	6,953	5,791	6,540	6,944	7,439	6,900	6,500
		Number of Substation Caused Interruptions	159	144	129	158	141	103	145	145
		SAIDI - Rural - duration in hours	8.2	8.2	8.1	8.6	9.1	9.1	9.1	9.0
		SAIFI - Rural - frequency of outages	3.3	3.3	3.0	3.4	3.4	3.1	3.4	3.4
		SAIDI - Urban - duration in hours	2.7	3.2	2.2	2.8	2.8	2.4	2.8	2.8
		SAIFI - Urban - frequency of outages	1.6	1.7	1.6	2.3	1.4	1.6	1.7	1.7
		Large Customer Interruption Frequency (LDA's) - frequency of outages	New Measure		118	147	165	136	143	143

\*There were no station refurbishment units matching the criteria completed in 2012

# Customer Experience

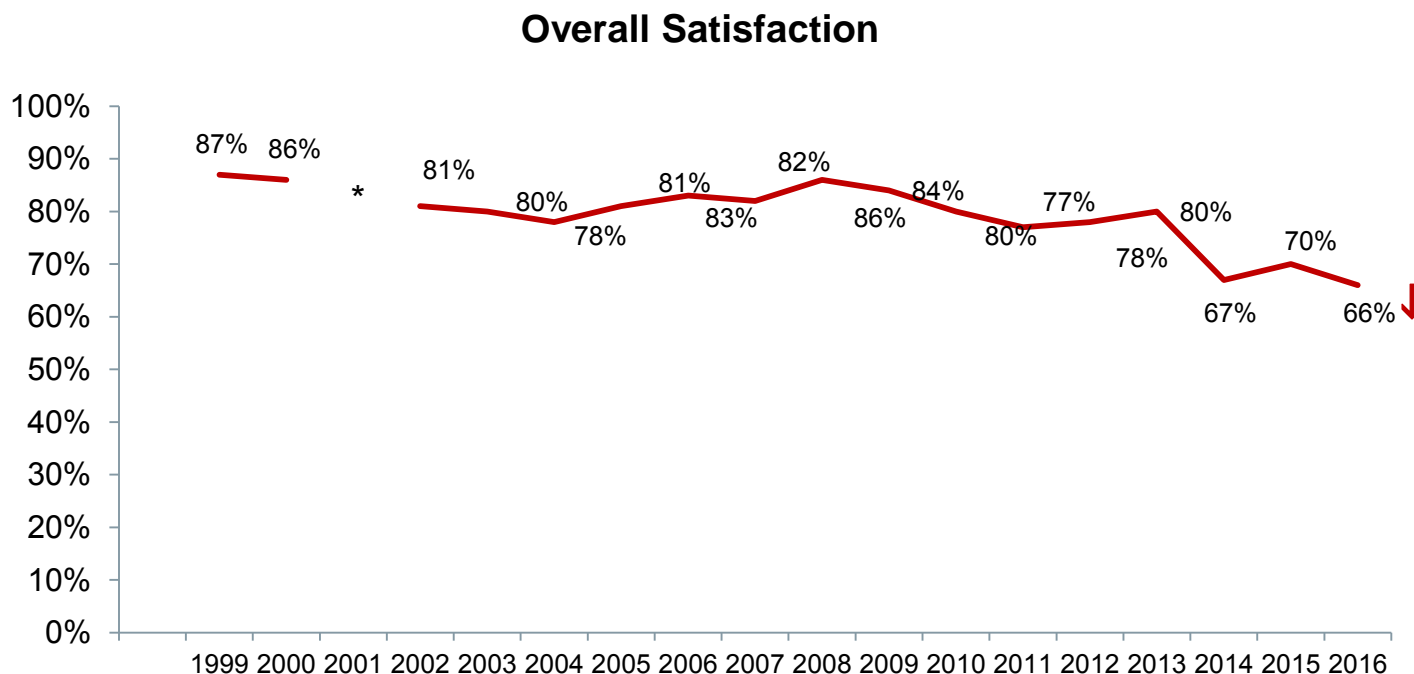
## **Residential and Small Business Customer Satisfaction Study**

December 2016 (Revised February, 2017)

**Prepared by: Ipsos**



# Overall Satisfaction – Survey Results

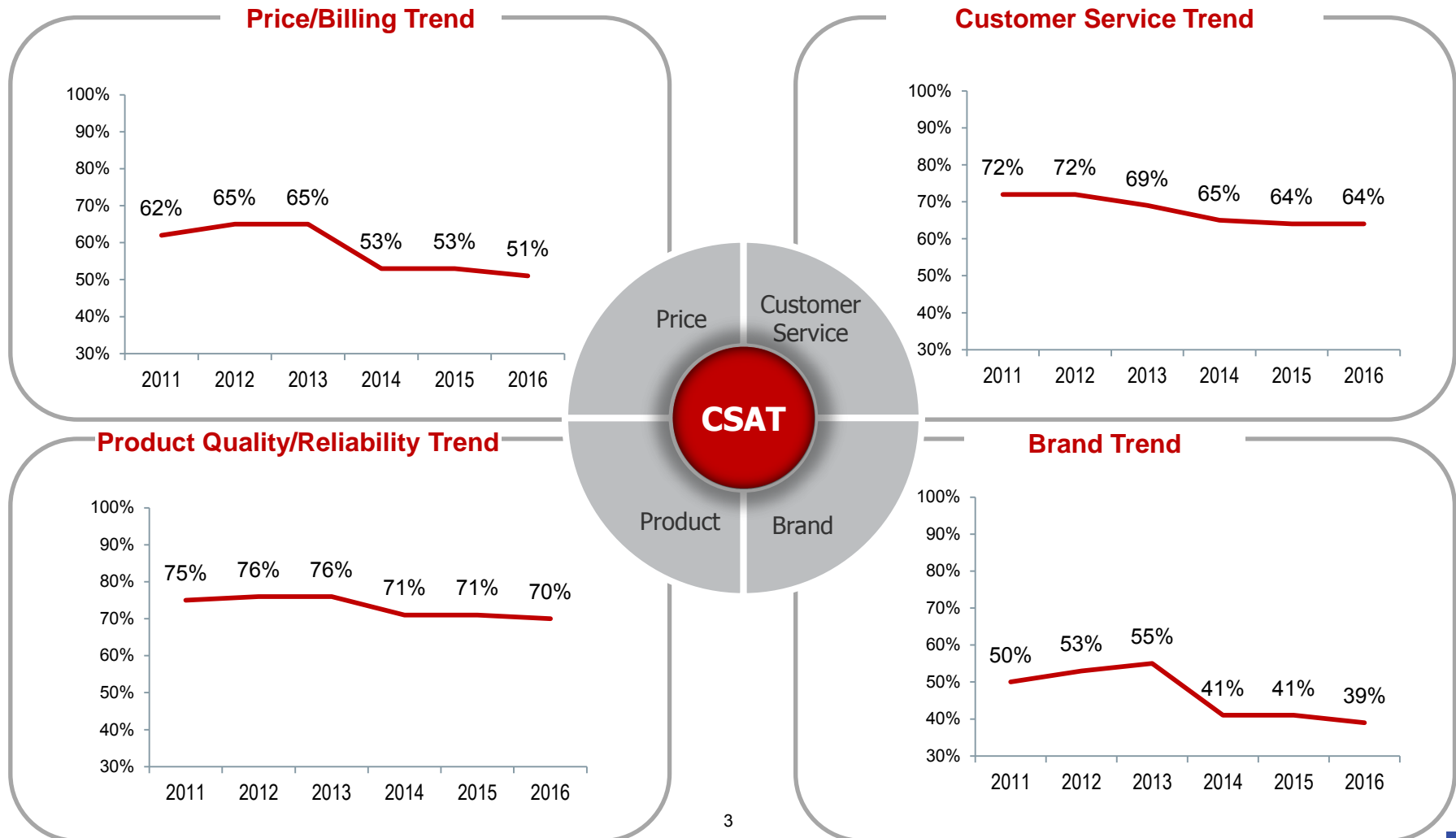


## Key Insights

- Overall Satisfaction is significantly lower in 2016 compared to 2015.
- Rates/Price continues to be the issue mentioned most often by those not satisfied overall with Hydro One. The incidence of mentions has increased significantly to 76% from the 61% found in 2015 – following a steep increase from 2014 to 2015.

# Survey Findings: Drivers of Satisfaction

Despite significant changes in individual metrics in Brand and Price/Billing, the aggregate scores for all groups have remained stable compared to 2015.



**OEB Staff Interrogatory # 2**

**Issue:**

Issue 2: Has Hydro One adequately responded to the customer concerns expressed in the Community Meetings held for this application?

**Reference:**

Executive Presentation Day Transcript, page 41  
At this page Mr. Pugliese testifies,

*“....we are the first utility to offer service guarantees. So, if we make a commitment to do a reconnect, to do a move in and move-out, if we fail to meet that within a set time frame, there is a service guarantee that we will give to the customer and a credit, and that is \$75.*

**Interrogatory:**

- a) Please provide a list of the services that Hydro One’s “service guarantee” would cover.
- b) Please describe in detail how this service guarantee would work for a typical customer.
- c) Are there specific criteria the customer must meet to qualify for this service guarantee?
- d) What is the total amount budgeted for 2018 for this service guarantee credit?

**Response:**

- a) If Hydro One does any of the following, Hydro One will credit the affected customer’s account \$75:
  - i. miss an appointment with a customer;
  - ii. fail to connect the new service within five business days of all connection requirements being met; and
  - iii. fail to return the customer’s phone call within one business day

b) Hydro One's service guarantees are outlined below:

i. **Miss an Appointment with a Customer** – Hydro One may schedule an appointment for a member of the field staff to meet with the customer regarding planned work, or to determine the requirements for unplanned work or a new service connection. If Hydro One sets an appointment for a morning or afternoon visit and the appointment is missed, Hydro One will automatically credit the affected customer's account with \$75. This service guarantee will not apply for design consultations which do not result in a connection and a customer account.

ii. **Fail to Connect the New Service within Five Business Days of All Connection Requirements Being Met** – If (a) all the connection requirements have been met and (b) Hydro One does not connect the power within five business days, Hydro One will automatically credit the affected customer's account with \$75. This service guarantee will not apply if Hydro One and the customer have mutually agreed to connect at a date later than five business days or the service connection is >750V or for distributed generation.

iii. **Fail to Return the Customer's Phone Call Within One Business Day** – When a customer's phone call is escalated in the call centre, Hydro One may schedule a return phone call. If the return phone call is not made within one business day, Hydro One will automatically credit the customer's account with \$75.

c) If Hydro One fails to meet any of these service guarantees, Hydro One will automatically credit the affected customer's account with \$75. Additional information can be found on Hydro One's website, including exceptions and the conditions of service:

<https://www.hydroone.com/about/corporate-information/our-service-guarantees>

d) Hydro One has budgeted \$25,000 to fund service guarantees in 2018.





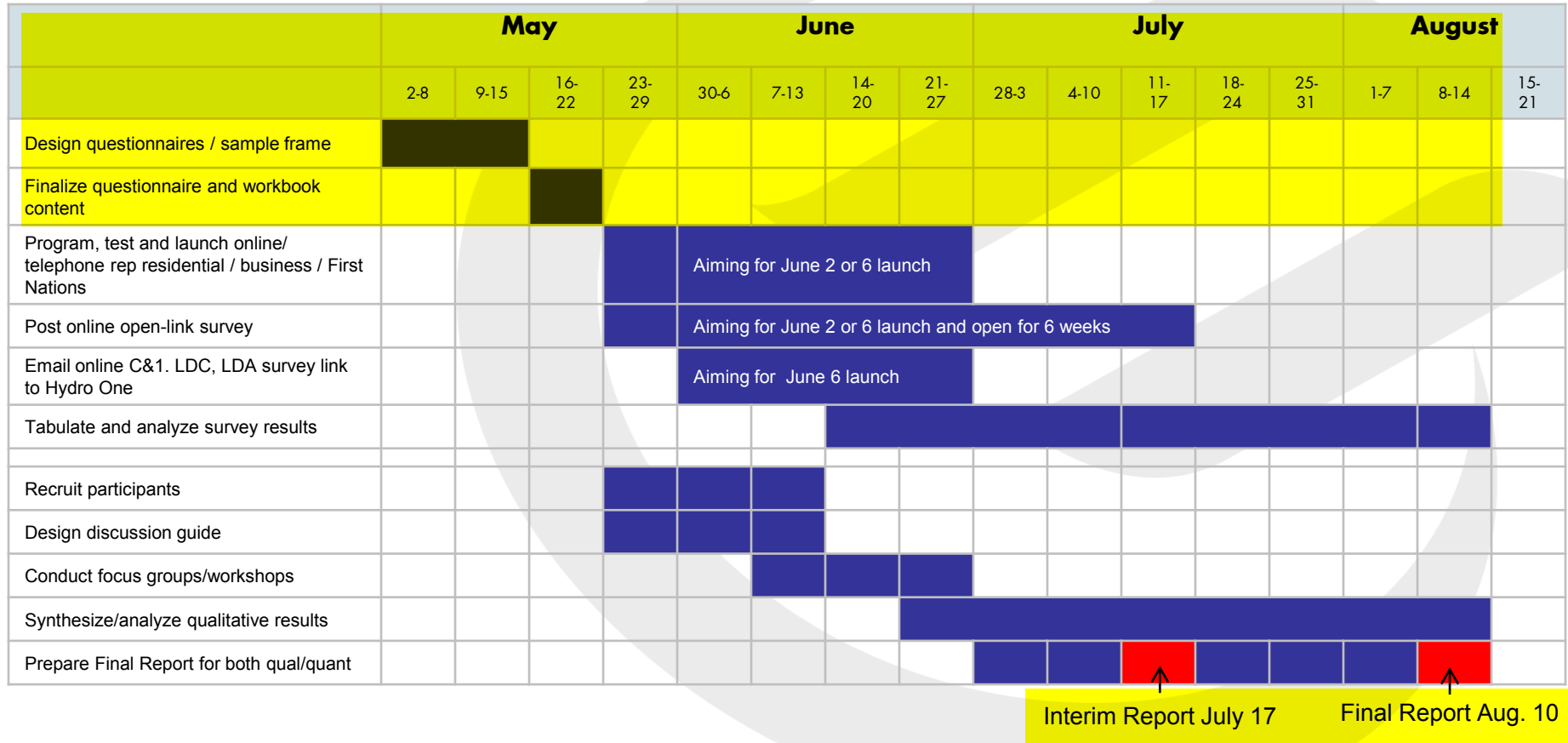
# **Dx Customer Engagement Plan**

**May 18, 2016**

# Phase 1 Detailed Approach for C&I, LDA & LDC Segments

	Group workshops	Surveys
Specific format	<ul style="list-style-type: none"> <li>• Presentation by HONI staff</li> <li>• Audio recording of sessions</li> <li>• Plenary + Small-group breakout sessions facilitated by Ipsos</li> </ul>	<ul style="list-style-type: none"> <li>• Online survey link and workbook emailed directly to <u>ALL</u> C&amp;I, LDA and LDC customers by Hydro One</li> </ul>
Details	<ul style="list-style-type: none"> <li>• 10 in person workshops with ~15 customers in each, per the following: <ul style="list-style-type: none"> <li>• 1 in Essex (Commercial &amp; Industrial only)</li> <li>• 2 in London (Co-locate – separate sessions with C&amp;I and LDA/LDC)</li> <li>• 2 in Hamilton (Co-locate – separate sessions with C&amp;I and LDA/LDC)</li> <li>• 2 in Collingwood (Co-locate – separate sessions with C&amp;I and LDA/LDC)</li> <li>• 1 in Kingston (possibility of C&amp;I, LDA, LDC combined)</li> <li>• 1 in Timmins (possibility of C&amp;I, LDA, LDC combined)</li> <li>• 1 in Thunder Bay (possibility of C&amp;I, LDA, LDC combined)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• IPSOS to use standard online survey platform (not online consultation tool) and provide link to Hydro One to email out.</li> <li>• Costs assume cleaning of verbatim comments and coding of open-ends will be capped at 200. If &gt;200 completes are received a random sampling will be cleaned/coded.</li> </ul>
Screening criteria	<ul style="list-style-type: none"> <li>• C&amp;I: Balance across key sub-segments</li> <li>• LDA: All customers invited to nearest workshop</li> <li>• LDC: All customers invited to nearest workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Assume Hydro One will send out survey to only those organizations that did not attend workshop or one-on-one. One survey per organization.</li> </ul>
Materials needed	<ul style="list-style-type: none"> <li>• Screener/script for recruitment</li> <li>• Master deck for presentations</li> <li>• Customer workbooks and related materials (per segment)</li> <li>• Discussion moderator guide/script</li> </ul>	<ul style="list-style-type: none"> <li>• Ipsos to design surveys</li> </ul>
Key dates	<ul style="list-style-type: none"> <li>• Workshops to be held concurrent with focus groups, post quantitative launch</li> </ul>	<ul style="list-style-type: none"> <li>• TBD</li> </ul>
Questions	<ul style="list-style-type: none"> <li>• Hydro One to recruit participants and provide representative for presentations</li> </ul>	

# Phase 1 – Timeline\*



**School Energy Coalition Interrogatory # 36**

**Issue:**

Issue 24: Does Hydro One's investment planning process consider appropriate planning criteria? Does it adequately address the condition of distribution assets, service quality and system reliability?

**Reference:**

Previous Proceeding - EB-2016-0160, J8.1, Attachment 1-2

**Interrogatory:**

Please provide a detailed chronology of material events in Hydro One's distribution planning process for the capital plan included in this application similar as to provide in Undertaking J8.1 in EB-2016-0160.

**Response:**

Table 1 provides the chronology of material events in Hydro One's distribution planning process up to filing this Application on March 31, 2017.

**Table 1: Chronology of Material Events in Hydro One's Distribution Planning Process**

Date	Activity Category	Activity
March 2015	Strategic Decision	OEB issues decision in Hydro One's 2015-2019 Dx Rate Application
April – November 5, 2015	Strategic Decision	Initial Public Offering (IPO) process occurs. Distribution figures cited in the IPO documentation were those approved in Hydro One's last rates Dx application 2013-0416 which were based on information known in 2013
November 2, 4, 2015	Strategic Decision	CEO/CFO Review of the Draft Investment Plan
November – December 2015	Strategic Decision	Discussion with Board of Directors regarding draft Business Plan. Decision made to undertake a detailed review of the organization with several goals, including a review of the potential for additional productivity and efficiencies.
December 2015	External	Auditor General Report issued.
January 2016	Strategic Decision	2016 budget approved by Hydro One's Board of Directors
April/May 2016	IPSOS Customer Engagement	Develop Dx Customer Engagement Content
May 9, 2016	IPSOS Customer Engagement	CEO Review of Customer Engagement workbook
May 13, 2016	IPSOS Customer Engagement	Workshop invites sent to potential participants

Witness: BRADLEY Darlene

May 18, 2016	IPSOS Customer Engagement	Online workbook send to coding
May 25, 2016	IPSOS Customer Engagement	Workshop deck sent to production
May 27, 2016	Business Planning	CEO/CFO validation of prioritization criteria and weightings
June 2, 2016	Business Planning	Dx investment planning process initiated for 2017-2022 Business Plan.
June 2-17	IPSOS Customer Engagement	Telephone survey targeted towards for residential, seasonal small business, and First Nations customers (representative sample)
June 2-23, 2016	IPSOS Customer Engagement	Online workbook available for residential and seasonal customers (representative sample)
June/July	IPSOS Customer Engagement	Online workbook available for residential and small business customers (open link sample)
June 8-June 24, 2016	IPSOS Customer Engagement	LDC/LDC/C&I customer workshops
June 2016	IPSOS Customer Engagement	Online workbook/survey booklet available for LDC/LDC/C&I customers
June 27-July 6, 2016	IPSOS Customer Engagement	Residential and Small Business customer focus groups
June 2016	Business Planning	Planners input candidate investments into AIP tool.
Late June 2016	IPSOS Customer Engagement	Initial themes identified through customer engagement shared with asset management leadership
July 2016	Business Planning	Management review of individual candidate investment proposals
Mid July 2016	Business Planning	Investment Calibration
July 18, 2016	IPSOS Customer Engagement	Draft Customer Engagement report from IPSOS
July 19, 2016	IPSOS Customer Engagement	Key themes identified through customer engagement shared with asset management leadership
August 18, 2016	IPSOS Customer Engagement	Final Customer Engagement report from IPSOS
Early-Mid August	Business Planning	Prioritization and risk optimization of candidate investments
Mid-August–Mid September	Business Planning	Operational stakeholder (“Enterprise”) engagement on preliminary list of prioritized investments.
September 16, 2017	Business Planning	CFO Review of Draft Investment Plan (Plan A/B)
September 27/28, 2016	Business Planning	CEO/CFO Review of Draft Investment Plan (Plan A/B)
October 11, 2016	Strategic Decision	Discussion with Board of Directors on Distribution Investment Plan (Plan A/B)
October 2016	Business Planning	Further scenario development, exploring opportunities to mitigate rate impacts
October 2016	Benchmarking	Final report of Hydro One Vegetation Management
October 19, 2016	Benchmarking	Final report of Hydro One Distribution unit cost benchmarking study for pole replacements and substation refurbishments

## Distribution Customer Consultation

Interim results: July 19, 2016

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## SURVEY RESULTS **SATISFACTION IS GENERALLY CONSISTENT ACROSS SEGMENTS – C&I DIRECTIONALLY LOWER**

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# THEMES

# COST

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## COST

### Impact of hydro costs and affordability

- For residents, many are interested in lowering the cost of hydro. For a few, it is already unaffordable or approaching being unaffordable
- For small businesses, it is one of many expenses of their operations and a threat to their profitability. Small businesses feel squeezed from many sides, and unsupported in Ontario
- For some large business customers, they stated that the continued rise in hydro prices is a direct threat to the viability and competitiveness of their businesses.
  - it is an expense that they state is one of or the highest after labour
  - it is perceived as being higher than in other jurisdictions and participants have observed anecdotally that business is being lost to these other regions as a result - for example, manufacturing plants in Ontario have closed and moved to the United States and Mexico

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## COST

# Efficiencies

- Large customers inquired repeatedly in all markets about efficiencies in operational and maintenance costs - and asked if Hydro One could improve in these areas in order to save money and re-invest in capital expenditures, instead of raising rates
- They expressed interest in seeing further details on the historical and current efficacy of maintenance programs, and capital expenditures already spent on improvements. This would help them determine if efficiencies are being achieved

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## COST

# Rate increases

- For residents, most don't like the rate increase but understand that it is necessary, several oppose or don't know if they support a rate increase, with a few supporters
- For small businesses, several don't like the rate increase but understand that it is necessary, with an equal number who oppose it
- For large customers, overall the majority are unwilling to accept a rate increase of any size, whether reliability remains the same or improves
- All segments express a desire for more detailed information as to how the rate increases would be spent, so that they can determine if the investments are truly impacting reliability - rather than going to wages, salaries, or payouts to Hydro One employees

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# DISTRIBUTION CUSTOMER ENGAGEMENT REPORT

## DEVELOPMENT OF DISTRIBUTION INVESTMENT PLAN AUGUST 2016

Prepared for:  
**Hydro One Networks Inc.**  
483 Bay Street  
Toronto, ON  
M5G 2P5



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# EXECUTIVE SUMMARY

## BACKGROUND AND CONTEXT

Hydro One Networks Inc. (Hydro One) engaged Ipsos to assist with the design, execution, documentation and analysis of feedback from distribution-connected customers for its customer engagement process. Ipsos was engaged to facilitate, to develop research questions, and to provide a resulting report that is unbiased, unvarnished and evidence-based. The views contained in this report are the views of Ipsos, based on analysis of research results and views expressed by Hydro One customers.

This report documents and summarizes the feedback and insight from that engagement, and will be considered by Hydro One as it develops its investment plan to support its Distribution Revenue Requirement and Rate Application for 2018–2022. This application is to be submitted to the Ontario Energy Board (OEB) in early 2017.

Hydro One's customer engagement process contemplates the enhanced engagement between utilities and their customers as described in the OEB's Renewed Regulatory Framework for Electricity (RRFE). The RRFE holds the expectation that utilities, "... demonstrate consideration of all relevant factors, including the needs of existing and future customers and the costs to meet them, and that planning has



been informed by appropriate consultation..." The expectation therein, that utilities provide an overview of associated customer engagement and outreach activities in their applications and that they demonstrate how customers' feedback and needs have been reflected and considered, further shaped Hydro One's approach.

By engaging Ipsos, the company set out to establish a best-in-class customer engagement process. The multi-segmented and multi-channel approach undertaken by Hydro One over a period of approximately three months, provided the opportunity for all segments of the company's distribution-connected customers across the province to participate in the process. As a result, 19,904 Hydro One customers provided their input into this process.

## GLOSSARY OF TERMS

The following terms are used throughout the report.

TERM	MEANING
<b>Directional differences</b>	Refers to comparisons between sub-groups of customers where the differences cannot be said to be statistically significant
<b>'Informed' Customers</b>	Refers to customers who were provided with additional information about Hydro One's network/business
<b>Large Customer</b>	Refers to the aggregate of the following Large Customer segments: Commercial and Industrial (which will be referred to as C&Is), Large Distribution Accounts (which will be referred to as LDAs), Local Distribution Companies (which will be referred to as LDCs), Connected Distributed Generators (which will be referred to as DGs)
<b>Local Distribution Companies (LDCs) and Distributed Generators (DGs)</b>	Throughout the report, the Local Distribution Companies (LDCs) and Connected Distributed Generators (DGs) (>10 kW) have been managed as one segment; both are supported by the same Key Account Executives
<b>Residential and Small Business Customer (R&amp;SB)</b>	Refers to the aggregate of Residential, Seasonal and Small Business customer segments
<b>Small Business Customer</b>	Refers to General Service customers (<50 kW peak demand and 50 to <500 kW peak demand)
<b>'Uninformed' Customers</b>	These customers did not receive the additional information that 'Informed' Customers did

## SUMMARY OF FINDINGS

The following summary is based on the collective feedback of 19,904 distribution customers who provided 20,062 responses through the various customer engagement activities. A full detailing of the customer engagement activities are provided in the Methodology section of this report. Detailed findings from each distribution customer segment are also provided in later sections of this report.

The findings of the engagement process are grouped thematically:

1. Costs
2. Customer priorities
3. Level of reliability customers expect
4. Types of reliability improvements customers value
5. Willingness to accept a rate increase to maintain and improve service levels

### 1. COSTS

Keeping costs as low as possible is customers' top priority. This was evident across most of Hydro One's distribution customer segments, with the exception of local distribution companies who place a greater priority on receiving reliable service, both in terms of the number and duration of interruptions.

*"If there is a way to improve both [service and cost], obviously that is ideal, but if I'm going to weigh one over the other, then I'm going to choose the cost."*

Among R&SB customers, the preference for keeping costs low is influenced by three factors:

1. The majority of customers indicate that the current level of reliability and service they receive from Hydro One is in line with their expectations, and therefore there is not a strong desire for improved service, particularly if it means raising rates.

*"The service is consistent with very few outages."*

*"I would rather the company not worry about improving the other areas and instead concentrate on keeping costs low for customers."*

2. The preference for keeping costs low, for some customers, is influenced by a desire to see Hydro One demonstrate greater fiscal management and operational efficiency before considering rate increases. There is a perception among some customers that Hydro One has not demonstrated this in the past, and thus some customers do not accept that rate increases are necessary.

*"If Hydro [One] had ever been well-managed, they would have known years ago that the equipment needed to be dealt with and would have been looking towards that and doing that every year so that their equipment did not become outdated and go beyond its life expectancy. So, now they're saying all this needs to be done and dealt with and they're already in debt and they're already gouging us with hydro rates. And now they're saying this all has to get fixed. This is how they're trying to justify the extra increase so they can deal with this, but why wasn't this dealt with years ago?"*

*"I think it's unreasonable honestly because I know the company's net assets have increased 13% since 2012, and something like 4,000 employees have made the Sunshine List, earning over \$100,000 a year on the public dime. So, I think it's a little unreasonable to be dipping into the customer's pocket to sustain the level of outages that I personally feel is a little unreasonable."*



3. The final factor is that for some customers, electricity costs represent a financial challenge, and are approaching being unaffordable. These customers feel that they simply can't afford an increase in rates. The reference to rates is in relation to the overall bill, rather than a specific comment about the distribution delivery rate charge. This was heard primarily in focus groups and in Workshop feedback from C&I customers, rather than arising from survey responses.

*"...some months, I have problems paying my hydro bills. So, because of the rates of hydro and all the additional delivery charges and all of that other stuff that comes on your bill, I actually had to go to equal billing in order to be able to pay my hydro, and that's crazy."*

*"...electricity prices are certainly surpassing my wage [increases]. So, I always think of it that way that I'm definitely paying more out of pocket in proportion to my income."*

## 2. CUSTOMER PRIORITIES

For those who identify cost as their top priority, maintaining reliable electricity service is consistently their second priority. Many Large Customers, particularly C&I businesses, are facing reliability challenges. For many of them, power quality events and unplanned momentary power interruptions of less than one minute, rather than sustained interruptions of one minute or more, is their primary concern and many express that improvements are needed for their businesses to remain competitive and grow. Other customers are facing capacity challenges and want more access to power in order to grow their enterprises.

Customer service improvements, while desired particularly among Large Customers, are not something for which customers are willing to pay higher rates. However, it is clear that customer service issues for C&I and Small Business customers need to be better addressed for these customers to feel heard. The customer service issues raised by these customers during the customer engagement range from those with relatively specific and potentially simple solutions,

such as improving the way in which Hydro One communicates with Large Customers during outages/interruptions and doing a better job explaining the charges (such as Global Adjustment) on the bill, as well as correcting outstanding billing errors, to more complex issues such as the need for greater and more prompt support for capacity expansion applications, as well as for incentive programs.

The sentiments expressed by customers indicate that there is a significant opportunity for Hydro One to improve its communication and overall interaction with Large Customers, specifically C&I customers. The customer engagement activities also exposed several areas where customers, both large and small, lack a sufficient level of awareness or have misconceptions of what is within Hydro One's purview, what is mandated by the OEB, what is the responsibility of the Independent Electricity System Operator (IESO), and what is the role of government in setting policy and directing the IESO on the province's fuel mix, the price of electricity, and cost attribution.

## 4. THE TYPES OF RELIABILITY IMPROVEMENTS THAT CUSTOMERS VALUE

Large Customers were provided with six various investment options that Hydro One could prioritize and asked to rank each of them in order from one to six, where one represents the item that would have the greatest positive impact on their organization and where six represents the item that would have the least positive impact. All Large Customer segments, to a lesser extent C&I, prioritize the Renewal Program that focuses on replacing equipment that affects reliability ahead of other options for improving reliability. Other options include: tree-trimming, using technology to reduce the chances of losing power, strengthening the grid to better withstand severe weather, better detection of outages and/or remotely responding to outages.

Views on secondary and tertiary priorities vary somewhat. LDA customers place the second greatest priority on the Smart Grid, that is, using technology to reduce their chances of losing power. They place

this slightly ahead of increased tree-trimming and grid strengthening. LDC/DG customers place tree-trimming in the second position – in fact nearly as many of these customers feel this would have the greatest positive impact on them as those favouring the Renewal Program. C&I customers actually place as much of a priority on grid strengthening as the Renewal Program and then place investments in Smart Grid as their tertiary choice.

When it comes to ranking other service-related options, of which there were seven to rank, all Large Customer segments prioritize providing more accurate estimates of when power will be restored. But, this is followed closely by power quality – that is, monitoring and reducing the number of power quality issues (e.g., your lights flickering). LDA customers actually place this slightly ahead of more accurate power restoration estimates.

## 5. WILLINGNESS TO ACCEPT A RATE INCREASE TO MAINTAIN AND IMPROVE SERVICE LEVEL

A majority of R&SB customers who offer an opinion are willing to accept the rate impact shown during the customer engagement activities – roughly an additional 1% of the total monthly bill each year for five years – that would maintain the current reliability and service levels. 'Informed' customers – particularly among the Seasonal customer segment – are directionally more willing to accept the rate impacts that would maintain the current number and average length of outages than the average 'uninformed' customer. The majority of R&SB customers are unwilling to accept higher rate impacts for better reliability regardless of whether they are 'informed' or 'uninformed'.

Hydro One's Large Customers generally accept that investments are needed to address the company's aging infrastructure and distribution system. However, they expect Hydro One to exhaust all operational efficiencies before raising rates. As such, at present there is limited acceptance of any of the illustrative rate impact scenarios, even to maintain the current

levels of reliability and service. Directionally, between the three scenarios posed – one each for improving, maintaining and degrading reliability – Large Customers are more likely to accept larger rate impacts to maintain and improve reliability than smaller rate impacts for declining reliability.

Rate increases are difficult for many Large Customers to accept as they have concerns and need more information about Hydro One's operational efficiencies and its ability to effectively manage costs. Further, they need to be assured the company has sufficiently explored other options. The opinions of some are influenced by negative experiences they have had in the past that they associate with Hydro One's poor decision-making. This is particularly true of those who struggle with their electricity supply, either in terms of reliability and/or capacity, as well as those who have had billing problems and/or difficulty getting the answers they feel they need from the company.

*"I do think you have not been efficient in the last 20 years and I think there's a lot of costs you can cut...what do you think is acceptable, 2.5% or 4% increase...How efficient have you become in the last 5 years, do you have that?"*

Negative experiences with and poor perceptions of Hydro One have bled into their view of the company's ability to make prudent, cost-efficient investment decisions. They question Hydro One's current operational effectiveness, and believe that maintaining and improving the system can be achieved by managing costs more effectively rather than increasing rates. As well, because customers perceive that Hydro One is a monopoly in its service area, they are reluctant to believe that the company has the desire to get better.

For some Large Customers, the current high cost of electricity means that a rate increase of any size and on any line item of their bill is unaffordable, and a direct threat to the viability and the competitiveness of their businesses in Ontario. Unfavourable comparisons to prices in other jurisdictions were made several times, as participants perceive that Ontario has one of the highest costs of electricity of any jurisdiction in North America. A rate increase by Hydro One needs to include customer-facing, public details on operational efficiencies, as well as information as to how the company has effectively managed costs to date. The investment plan should detail tangible benefits to the customers who struggle most with reliability — addressing power quality concerns and regional concerns. The plan should also detail how Hydro One can address those with additional capacity needs.

*"Good for Hydro One. They've been under the radar, [but it is] very brave of [them] to come out and do these sessions."*



*"How can we see a rate increase of this magnitude in general, but particularly for decreasing service? Why are there seemingly no attempts to maintain service but to reduce YOUR operating costs?"*

*"[I] would have liked to see some slides on what Hydro One is doing internally to identify opportunities to create operational efficiencies and reduce costs internal to the organization."*

Overall, as evidenced by the comments and questions raised during the in-person Workshops, the Distribution Customer Engagement was successful in raising awareness of Hydro One's past investment planning and performance, in receiving a wide variety of detailed feedback from all its customer segments, and in positively affecting perceptions of the company by making an effort to engage and listen.





Satisfaction with Hydro One does not vary significantly between 'uninformed' customer segments. There is more variation between the 'informed' customer segments including between Large Customer segments. 'Informed' Residential customers report lower satisfaction than 'uninformed' customers.

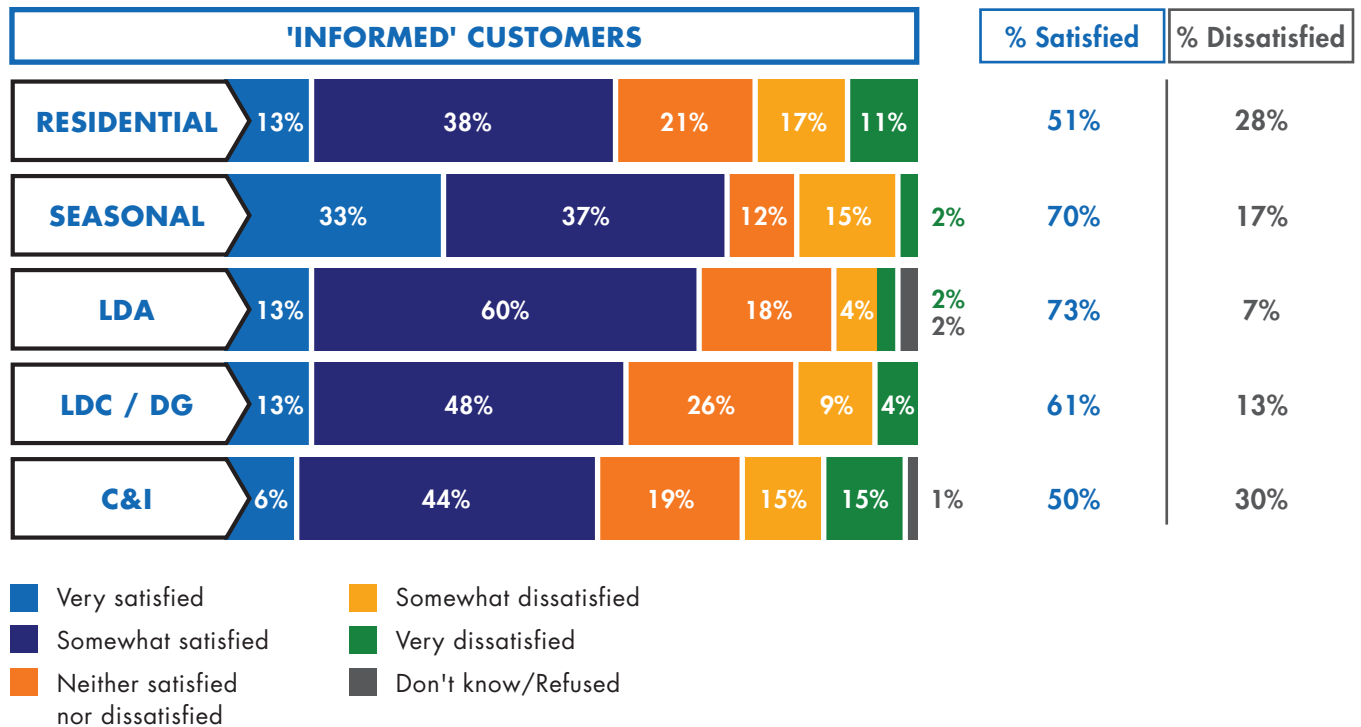
## ALL CUSTOMER SEGMENTS OVERALL SATISFACTION WITH HYDRO ONE

'UNINFORMED' CUSTOMERS							% Satisfied	% Dissatisfied
RESIDENTIAL	23%	43%	10%	10%	13%	1%	66%	23%
SEASONAL	19%	47%	4%	15%	15%		66%	29%
SMALL BUSINESS	25%	43%	6%	13%	11%	1%	68%	24%
FIRST NATIONS	22%	39%	4%	16%	17%	3%	60%	32%



As you may know, Hydro One builds and maintains power lines, towers and poles, safely delivers electricity, reads meters, calculates your charges, answers your calls, responds during outages, and clears trees and brush from power lines. Hydro One does not generate electricity or set electricity prices. Q1. How satisfied are you with Hydro One overall? Note: During the first week of fielding the response scale was changed from 1 to 5 to a word scale to be consistent with the Annual Customer Satisfaction survey. Base: All Respondents Post Q change; Telephone Survey: Residential (n=243), Seasonal (n=68), Small Business (n=159), First Nations (n=204)

## ALL CUSTOMER SEGMENTS OVERALL SATISFACTION WITH HYDRO ONE

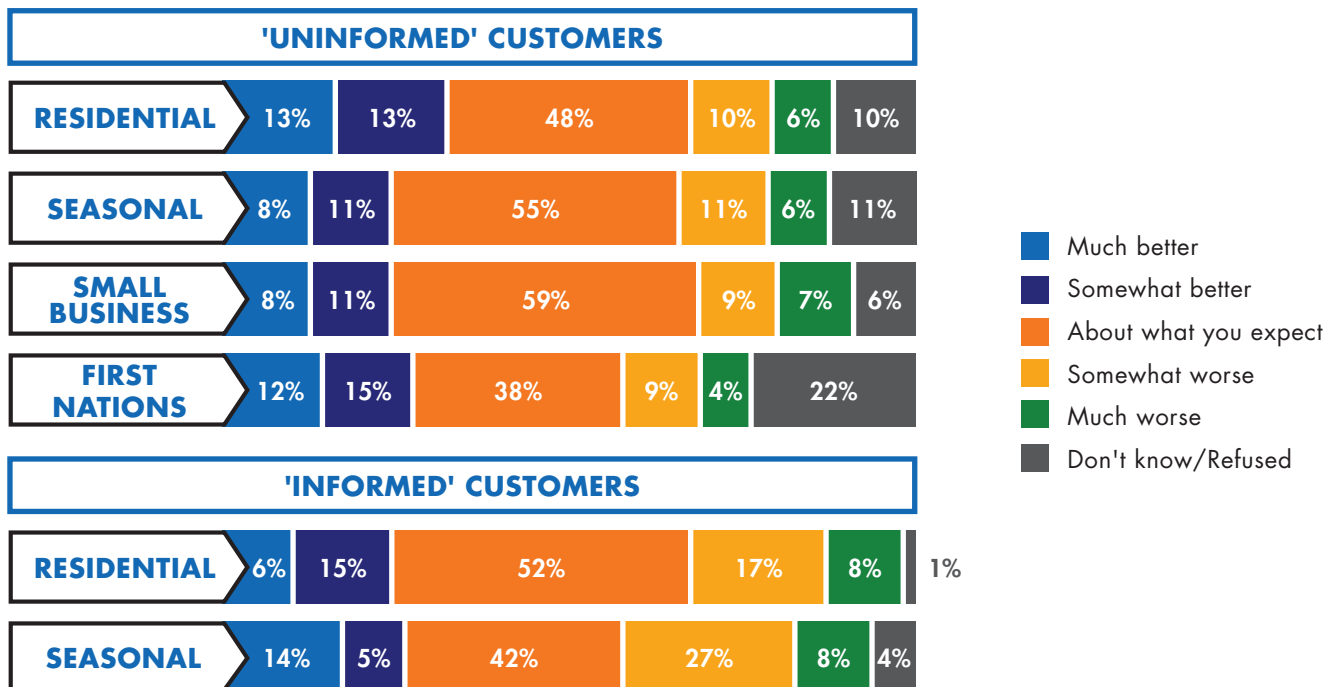


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The largest share of 'uninformed' customers indicate that the current number and average length of outages they experience is about what they expect. 'Informed' customers are directionally more likely to indicate it is worse than they expect.

## TELEPHONE SURVEY + ONLINE WORKBOOK REPRESENTATIVE SAMPLE RELIABILITY EXPECTATIONS

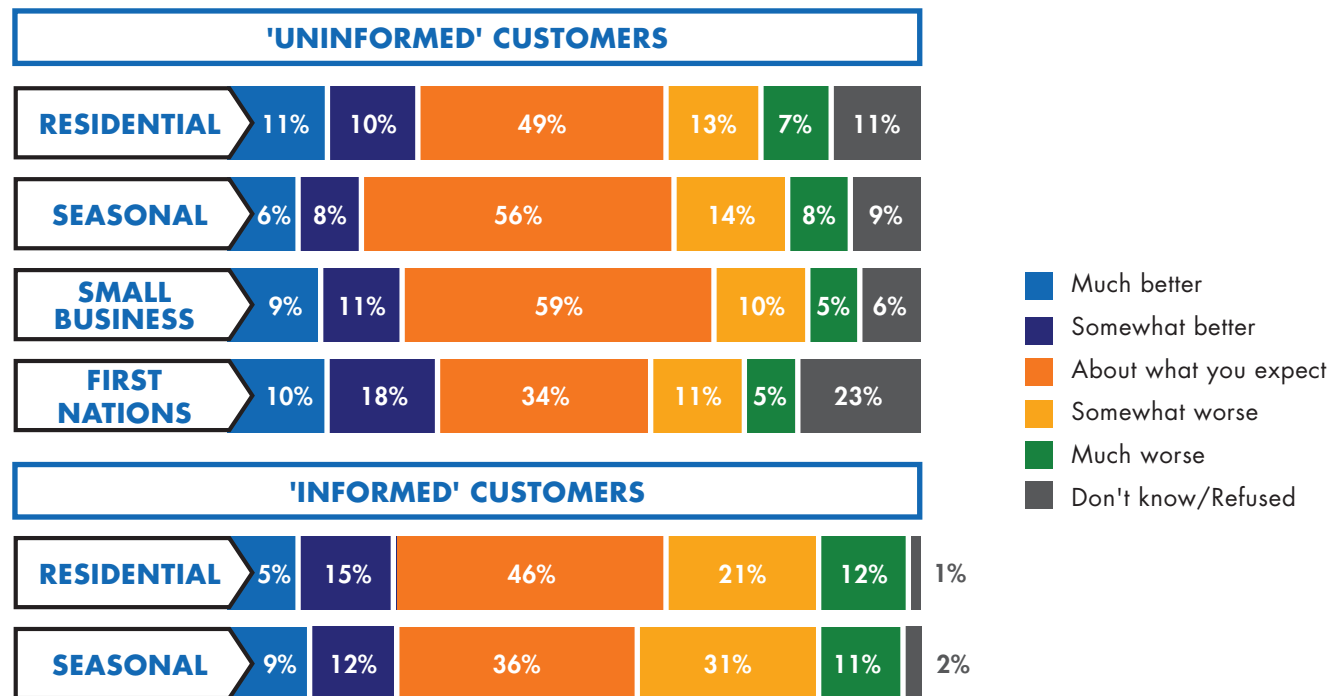
### NUMBER OF OUTAGES



Q8. In general, when you think about how many power outages you experienced over the last 12 months how did it compare to your expectations [READ LIST]?  
Base: One or more sustained power outages in the past 12 months; Residential (n=314), Seasonal (n=66) Small Business (n=144), First Nation (n=217). Informed: Residential (n=977), Seasonal (n=52)

TELEPHONE SURVEY + ONLINE WORKBOOK REPRESENTATIVE SAMPLE  
**RELIABILITY EXPECTATIONS**

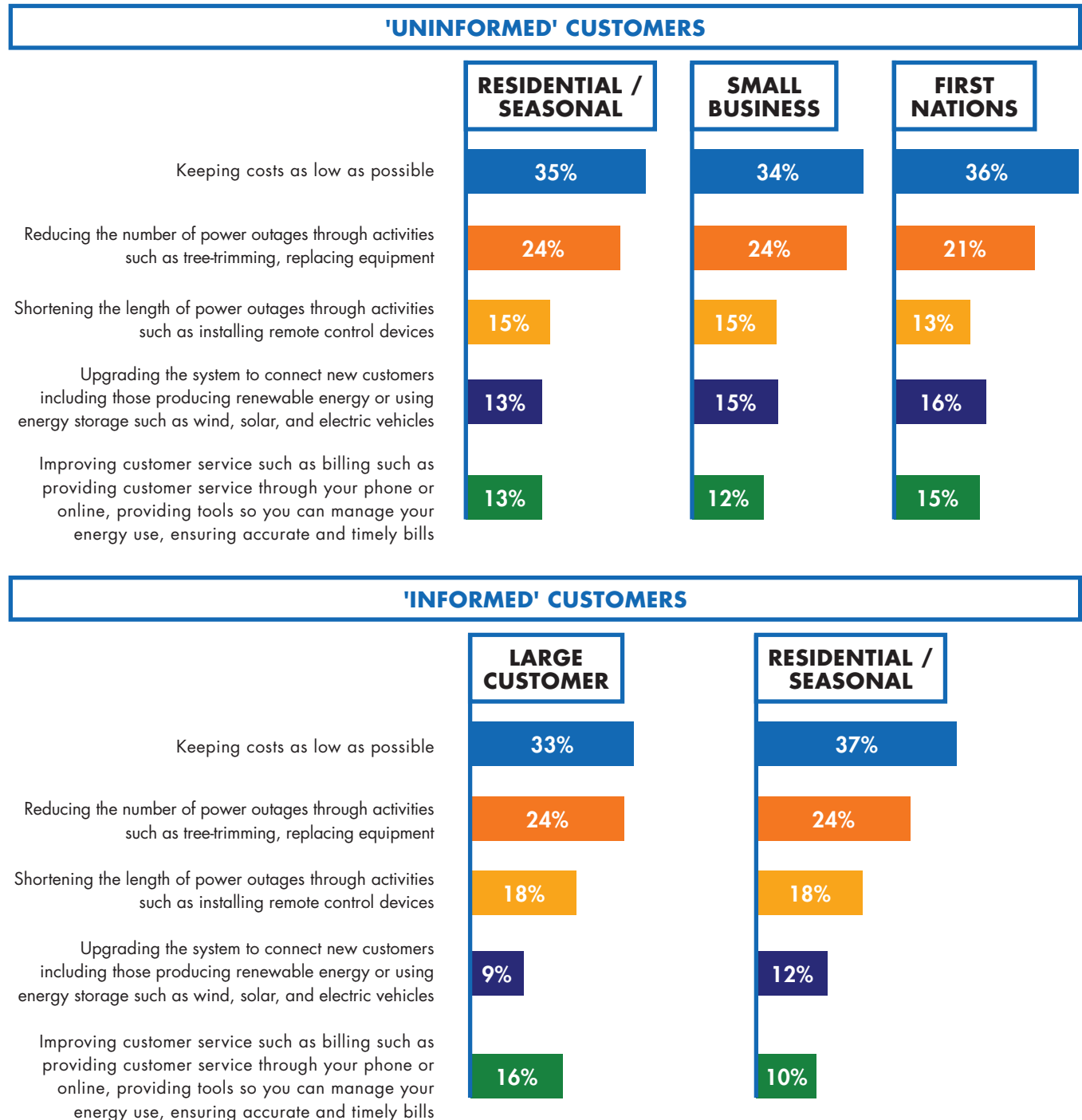
**LENGTH OF OUTAGES**



Q10. In general, when you think about the average length of the power outages you experienced over the last 12 months how did it compare to your expectations [READ LIST]? Base: One or more sustained power outages in the past 12 months; Residential (n=314), Seasonal (n=66) Small Business (n=144), First Nation (n=217)  
 Informed: Residential (n=977), Seasonal (n=52)

All customer segments prioritize keeping costs as low as possible over improvements in other areas. Reducing the number of power outages is consistently the second priority among customers.

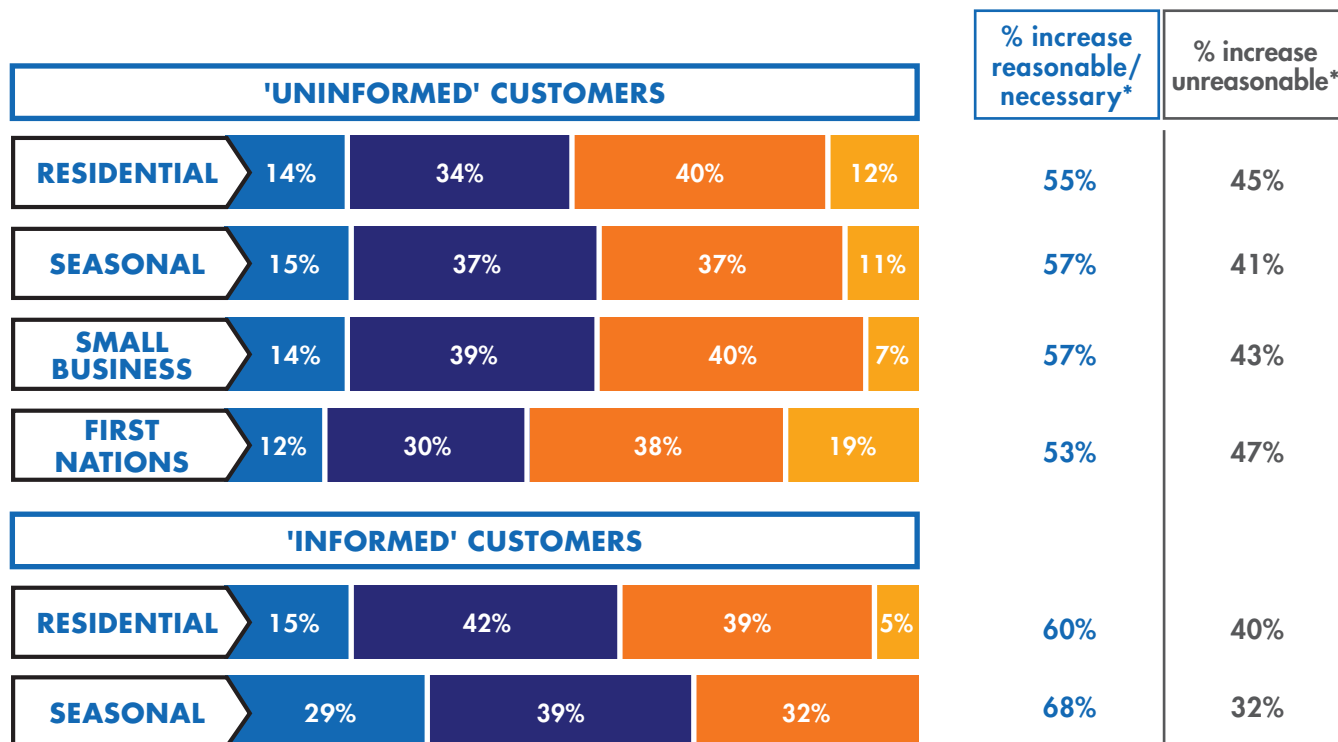
## ALL CUSTOMER SEGMENTS CUSTOMER PRIORITIES



Q5. Hydro One would like to better understand what is important to you as a [insert] customer. [Below is /I am going to read] Hydro One's major expenditures in pairs and for each pair please tell me which one is more important to you. Paired choice preferences relative to other options. Base: Uninformed - Residential/Seasonal (n=499). One respondent opted not to answer, Small Business (n=199). One respondent opted not to answer Q5., First Nations (n=300). Informed - Large Customers (n=87). Base: Residential/Seasonal (n=1604).

When posed with a roughly 1% rate increase on the total monthly bill, per year for five years, acceptance varies from 53% to 57% among 'uninformed' customers who had an opinion (i.e., excluding don't know/refused) and from 60% to 68% among 'informed' customers.

## TELEPHONE SURVEY + ONLINE WORKBOOK REPRESENTATIVE SAMPLE ACCEPTABILITY OF RATE INCREASE TO MAINTAIN LEVELS



- The increase is reasonable and I would support it
- I don't like it, but I think the increase is necessary
- The increase is unreasonable and I would oppose it
- Don't know/Refused

\* re-based to exclude don't know/refused

Q17. Hydro One has determined that in order to at least maintain the level of reliability and customer service it currently provides, a typical [residential or seasonal / small business] customer's total monthly bill will need to increase by [IF residential or seasonal 1.1% or the equivalent of \$2.00 / IF small business 1% of the equivalent of \$5.20]. The increase will be applied each year for the next 5 years. By the fifth year, a typical monthly bill will be roughly [IF residential or seasonal \$10.00 / IF small business \$26.00] higher than it is now. Please note that this increase reflects the cost to maintain the current level of reliability and service to customers. The monthly bill could still increase for other reasons which are outside the control of Hydro One. Would you be willing to accept this increase to maintain the current level reliability and customer service across the electricity system? Note that for the Telephone Survey, this question was posed as Which of the following is closest to your point of view? Base: Uninformed - Residential (n=400), Seasonal (n=100), Small Business (n=200), First Nations (n=300). Informed - Residential (n=1502), Seasonal (n=102)





## SUMMARY

*There are some key differences between the various Large Customer segments. C&I customers prioritize keeping costs as low as possible, well ahead of other priorities such as reducing the number of outages or shortening the duration of outages. LDA customers strike more of a balance between reducing the number of outages and cost, and LDC/DG customers actually place equal importance on shortening the duration of outages and reducing the number of outages. Both*

*of these are considered more important than simply keeping costs as low as possible.*

*These segments also vary fairly substantially in their preferences with how Hydro One invests in maintaining and reducing reliability and service. However, what is common among them is that all express a preference for Hydro One to improve power quality as they feel this would have a positive impact on their organization.*

## ONLINE WORKBOOK + WORKSHOP BOOKLET RESPONSES

As described in the Customer Engagement Methodology section, all of Hydro One's Large Distribution Accounts (LDAs) and Local Distribution Companies (LDCs) and a sub-set of Distributed Generators (DGs) were invited to participate in the facilitated in-person Workshops held in seven locations across the province. Hydro One invited all LDAs and LDCs that did not attend a Workshop to review the presentation and offer their feedback through an Online Workbook — the results of which are presented in this section. A stratified sampling of Commercial and Industrial customers was also invited to participate in the in-person Workshops. The remaining 5,000+ customers were invited (via e-mail or mail) to complete the online workbook. Refer to the Customer Engagement Methodology section for more details on the execution of the Workshops and Online Workbook.

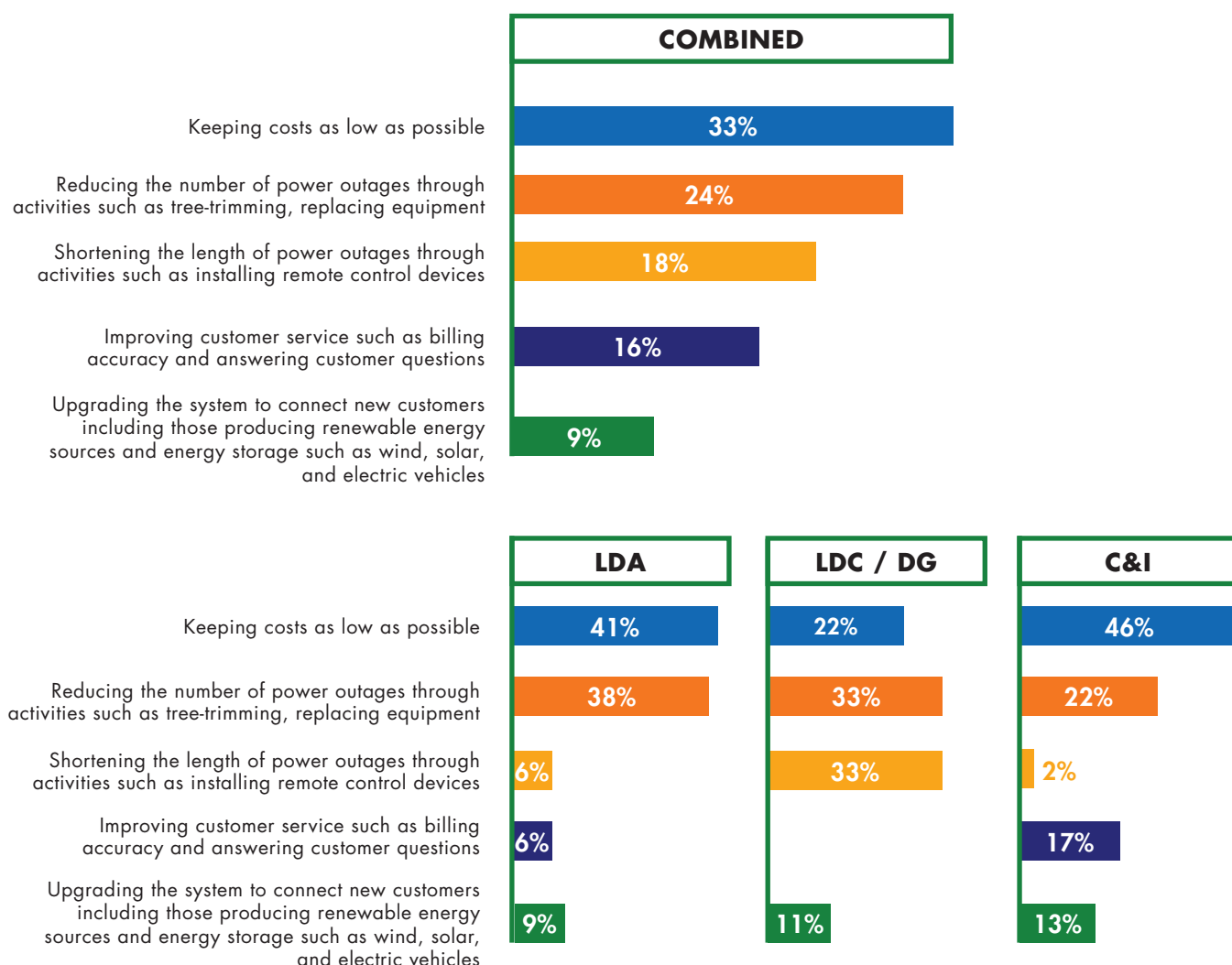
Each Workshop session began with a presentation from Hydro One staff. After presenting specific information, participants were provided an opportunity to ask questions or offer comments and then given time to complete a survey booklet that was provided to each of them. The Online Workbook contained the same presentation that was delivered at the sessions and posed all but one of the same questions. The paired-choice questions on customer priorities could not be asked effectively in a hard copy and so it was asked as "pick the most important priority" in the survey booklet.

The results in this section combine the results of the completed survey booklets with the completed online workbook. The combined sample sizes are LDAs  $n=45$ , LDCs/DGs  $n=23$ , C&I  $n=133$ . The results of Large Customers are directional only.

## CUSTOMER PRIORITIES

Large Customers, with the exception of LDC/DG customers, also prioritize keeping costs as low as possible over improved reliability, customer service or upgrades to the system to connect new customers including those producing renewable energy. LDC/DG customers prioritize better reliability, as well as both fewer and shorter outages ahead of all else.

### ONLINE WORKBOOK/ WORKSHOP SURVEY BOOKLET CUSTOMER PRIORITIES



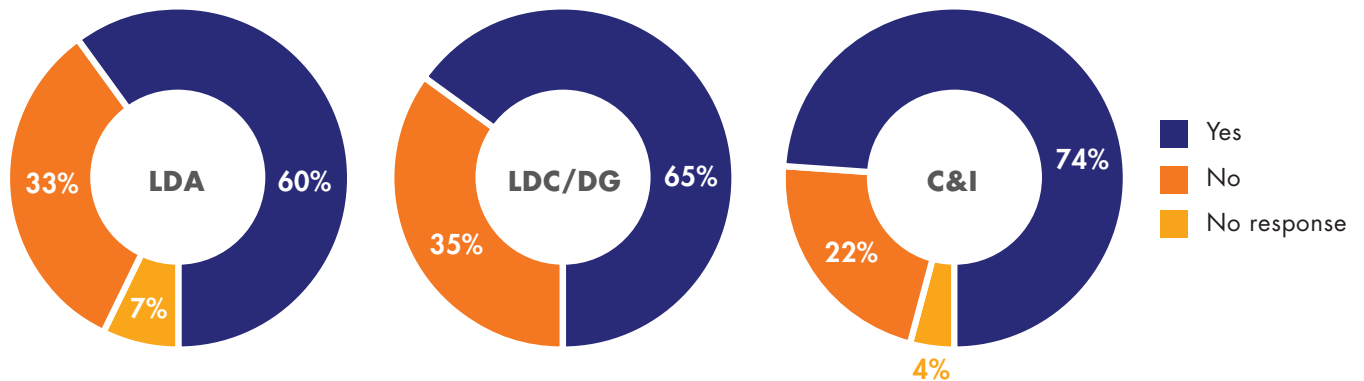
Q3. Hydro One would like to better understand what is important to you as a large customer. From the following list, which would you say is most important to your organization? (select one only) Base: Excludes don't know/refused. LDA (n=34), LDC/DG (n=18), C&I (n=46) Note: the online workbook asked this question in the form of a paired-choice and the analysis was conducted on the combined response (due to smaller base sizes) Base: LDA/LDC/DG/C&I (n=87).



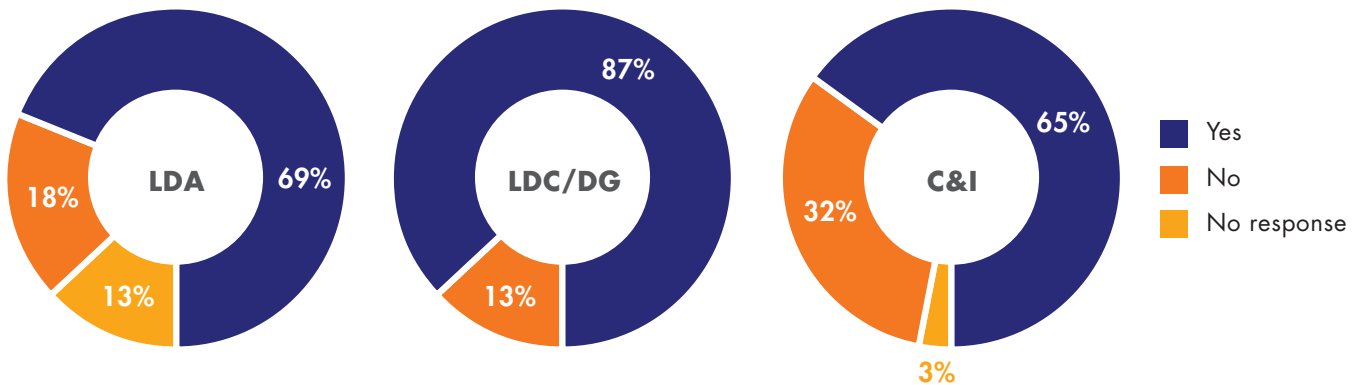
## CUSTOMER REACTION TO HYDRO ONE'S CURRENT INVESTMENTS

The majority (60% and higher across the Large Customer segments) indicate that based on what they heard/read in the presentation by Hydro One, the investments that Hydro One is making today to maintain and improve the current level of reliability and service make sense.

### TO MAINTAIN CURRENT LEVEL OF RELIABILITY AND SERVICE



### TO IMPROVE THE LEVEL OF RELIABILITY AND SERVICE



Q9. Based on what you just heard/read in the presentation, do the investments to maintain the current level of reliability and service that Hydro One is making today make sense to you? Base: LDA (n=45), LDC/DG (n=23), C&I (n=133). Q10. Based on what you just heard/read in the presentation, do the investments to improve the current level of reliability and service that Hydro One is making today make sense to you? Base: LDA (n=45), LDC/DG (n=23), C&I (n=133).

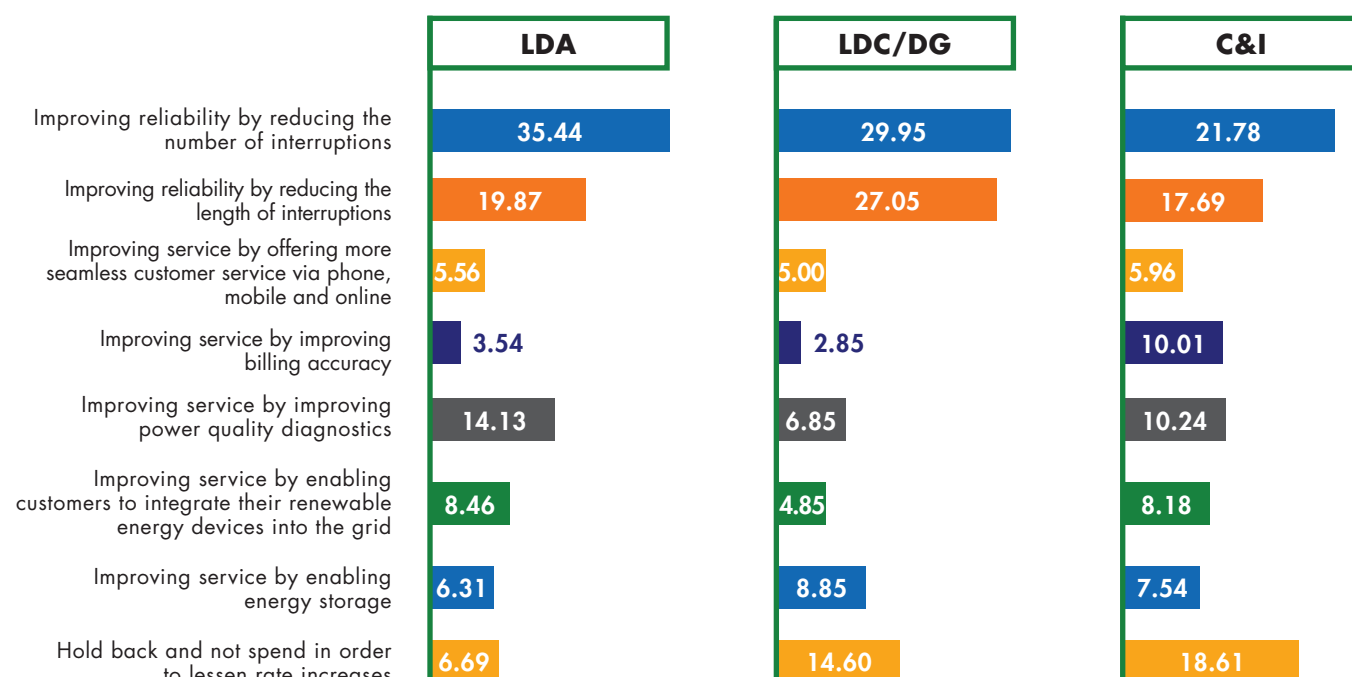
## HOW CUSTOMERS WOULD ALLOCATE INVESTMENTS

Large Customers were provided with the opportunity to allocate \$100 based on their preferences. All three customer segments allocate the most to reducing the number of interruptions (averaging from roughly 22% of spending to 35% of spending). LDA and LDC/DG customers allocate the next largest share to reducing the length of interruptions (LDA customers allocate an average of roughly 20% and LDC/DG allocate 27%).

### ONLINE WORKBOOK/ WORKSHOP SURVEY BOOKLET

## HOW LARGE CUSTOMERS WOULD ALLOCATE SPENDING

Data shown below is the mean score – representing the average amount (\$) customers would spend on these items.



Q13. To explore your preferences for reliability, service and level of rates, please complete the following exercise. If you had \$100 to spend on the following, how would you allocate the money? Note that for the workshop survey booklet, the wording was "let's do a simple exercise". The data shown above excludes customers who do not answer the question or whose answer did not total \$100. Base: LDA (n=39), LDC/DG (n=20), C&I (n=121).

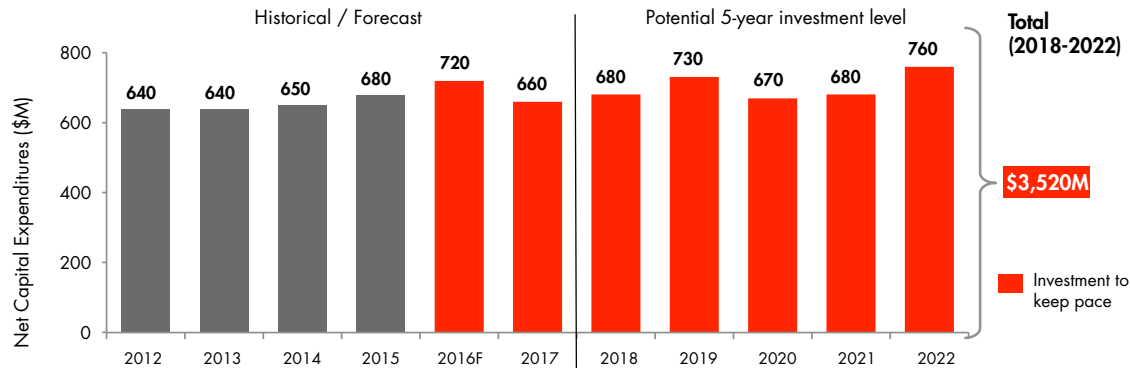
For C&I customers the next largest share is allocated to savings, i.e. hold back and not spend in order to lessen rate increases (roughly 19%). LDC/DG customers would hold back an average of 15%, while LDA customers would hold back 7%. LDA customers allocate more to improving power quality (at roughly 14%) than LDC/DG or C&I customers.

## Scenario 1: Maintain current reliability and service levels



1

### Maintain performance scenario

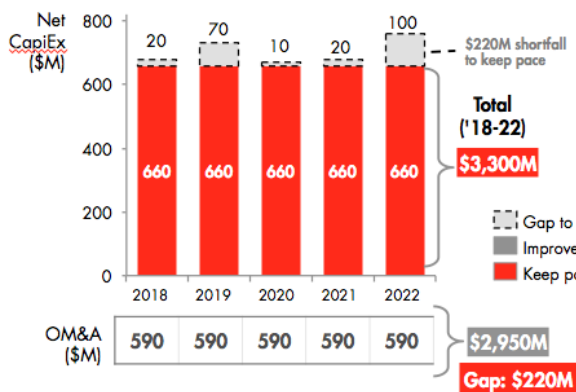


## Scenarios 2 and 3: Declining or improving reliability



2

### Declining performance scenario

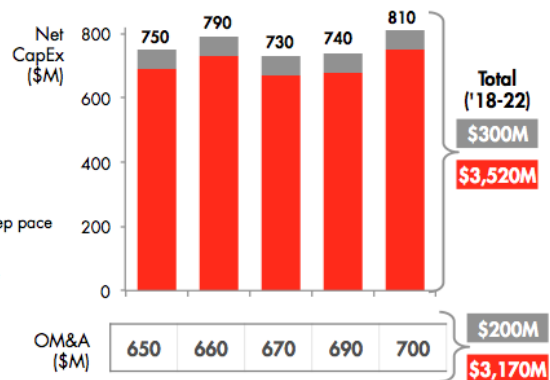


#### Key elements

- Capital and OM&A expenditures frozen at 2017 levels
- Focus on non-discretionary expenditures associated with safety, environment, equipment repair and compliance.
- Reduced preventative maintenance

3

### Improving performance scenario



#### Key elements

- Additional \$500M in spend over 5 years
- Increased preventative maintenance to 'get ahead' of asset degradation and prevent issues from occurring
- Improvement in overall levels of reliability and service

Overall, the majority of Large Customers are not willing to accept any of the rate impacts proposed in the illustrative examples (ranging from 2.5% - 4.0% on the distribution delivery rate). As shown in the chart, the vast majority of customers will not accept a rate increase (2.5% on the distribution rate delivery) where reliability declines. Customers are more likely to accept the larger rate impacts of 3.4% or 4.0% on the distribution delivery rate where reliability is at least maintained or improved. As shown in the qualitative section that follows, customers take issue with the idea that they would be asked to pay more for worse service.

# Two-Phases

Phase 1	To inform Dx plan (Qualitative and Quantitative)	Summer 2016
Phase 2	Validate earlier results and to add any new or additional customer insights	Winter 2016 or Spring 2017