

A – SCHOOL ENERGY COALITION INTERROGATORY – 001

Reference:

Not provided.

Interrogatory:

a) Please update the application, as applicable, to reflect any material changes in the 2021 forecast information.

Response:

a) Please see the response to Interrogatory A-SEC-002.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-001
Page 2 of 2

1

This page has been left blank intentionally.

Witness: All

A - SCHOOL ENERGY COALITION INTERROGATORY - 002

Reference:

No reference provided

Interrogatory:

Please provide revised version of the following tables showing 2021 year-to-date actuals, as well as year-to-date actuals, on a similar basis at the same point in time in each of 2019 and 2020. Please also provide the responses in Excel format.

- a. B-2-1, Section 2.8, Attachment 1 (Appendix 2-AB)
- b. B-2-1, Section 2.9, Attachment 1 (Appendix 2-AA)
- c. B-3-1, Section 3.8, Attachment 1 (Appendix 2-AB)
- d. B-3-1, Section 3.9, Attachment 1 (Appendix 2-AA)
- e. B-4-1, Section 4.8, Attachment 1 (Appendix 2-AB)
- f. B-4-1, Section 4.9, Attachment 1 (Appendix 2-AA)
- g. D-5-1, p.38 (Table E.3)
- h. E-2-1, Attachment 1A, p.3 (Appendix 2-JC Transmission)
- i. E-3-1, Attachment 1A, p.3 (Appendix 2-JC Distribution)
- j. E-7-1, Attachment 2A (Appendix 2-K)

Response:

Tables showing 2019, 2020 and 2021 Q3 year-to-date actuals are provided as listed below, in Attachments 1 to 6, and 9 of this interrogatory. Only 2021 Q3 year-to-date actuals have been provided in Attachments 8 and 9, owing to time constraints and data availability at this time.

Note: Q3 actual results are not indicative of full year results, as overall expenditures are not necessarily incurred uniformly through the year.

Sub-part	Exhibit	Title	Att. to SEC-002	Excel Attachment
a	B-2-1, Section 2.8, Attachment 1 (Appendix 2-AB)	Transmission Capital OEB Cost Categories	1	I-22-A-SEC-002-01
b	B-2-1, Section 2.9, Attachment 1 (Appendix 2-AA)	Transmission Capital Projects Table	2	I-22-A-SEC-002-02
c	B-3-1, Section 3.8, Attachment 1 (Appendix 2-AB)	Distribution Capital OEB Cost Categories	3	I-22-A-SEC-002-03

Witness: All

Sub-part	Exhibit	Title	Att. to SEC-002	Excel Attachment
d	B-3-1, Section 3.9, Attachment 1 (Appendix 2-AA)	Distribution Capital Projects Table	4	I-22-A-SEC-002-04
e	B-4-1, Section 4.8, Attachment 1 (Appendix 2-AB)	General Plant allocated to Transmission and Distribution	5	I-22-A-SEC-002-05
f	B-4-1, Section 4.9, Attachment 1 (Appendix 2-AA)	General Plant Capital Projects Table	6	I-22-A-SEC-002-06
g	D-5-1, p.38 (Table E.3). See D-LPMA-18	Distribution Number of Customers	See D-LPMA-18	
h	E-2-1, Attachment 1A, p.3 (Appendix 2-JC Transmission)	Transmission OM&A Programs	7	I-22-A-SEC-002-07
i	E-3-1, Attachment 1A, p.3 (Appendix 2-JC Distribution)	Distribution OM&A Programs	8	I-22-A-SEC-002-08
j	E-6-1, Attachment 2A, Appendix 2-K	Employee Costs	9	I-22-A-SEC-002-09

Transmission Capital (Attachments 1 & 2)

As of Q3 2021, a handful of capital programs are anticipated to exceed their 2021 budget by year end. These are identified below and in Attachment 2 to this interrogatory response. Hydro One will address positive variances, if any, in its capital programs by either: (i) offsetting them with reductions in 2021; or (ii) offsetting them with reductions in 2022, such that the overall capital envelope spend for the 2020-2022 rate period is consistent with the total capital values included in the filed evidence, and with no impact to the 2023-2027 rate period.

Capital programs with higher than planned values as of Q3 2021 are identified in Attachment 2 and include:

- System Access: In 2021, Hydro One received higher than forecast load customer connections and upgrades, and third party driven secondary land use and relocation requests. Values for these programs as of Q3 2021 have exceeded the year end 2021 forecast included in the filed materials. Any positive variances will be offset with reductions in 2021 and 2022 from other investment categories, as these investments are mandatory and Hydro One has limited discretion to manage positive variances through reductions to the System Access cost category.
- System Renewal: Power system coordination requirements caused Hydro One to revise the timing of its Integrated Station investments in 2021, which has driven a positive variance in this area. Specifically, the company has had to accelerate costs from 2022 for

- 1 critical air blast circuit breaker replacement projects including Bruce B, Middleport, and
2 Cherrywood. Any positive variances will be offset with reductions in 2021 and 2022.
- 3 • System Service: System Service capital expenditures are consistent with the 2021 forecast
4 included in the filed materials.
 - 5 • General Plant: General Plant capital expenditures are consistent with the 2021 forecast
6 included in the filed materials. Within this category, spending in the Information Solutions
7 program is higher than budgeted and will be offset with reductions in 2021 and 2022.
8 Variances are attributed to new office suite applications, investments to enhance identity
9 and access management capabilities, and investments to improve pay processes.

10

11 **Distribution Capital (Attachments 3 & 4)**

12 As of Q3 2021, a handful of capital programs are anticipated to exceed their 2021 budget by year
13 end. These are identified below and in Attachment 4 to this interrogatory response.

14

15 Hydro One will address positive variances, if any, in specific capital programs by either: (i)
16 offsetting them with reductions in 2021; or (ii) offsetting them with reductions in 2022, such that
17 the overall capital envelope spend for the 2018-2022 rate period is consistent with the total
18 capital values included in the filed evidence, and with no impact to the 2023-2027 rate period.

19

20 Capital programs with higher than planned values as of Q3 2021 are identified in Attachment 4
21 and include:

- 22 • System Access: Hydro One has received higher than forecast system access requests,
23 including joint use and relocation requests, new customer load connections and
24 upgrades, and demand meter failures. Any positive variances will be offset with
25 reductions in 2021 and 2022 from other investment categories, as these investments are
26 mandatory and Hydro One has limited discretion to manage within the System Access
27 cost category.
- 28 • System Renewal: System Renewal capital expenditures are consistent with the 2021
29 forecast included in the filed materials, with some incremental investment in distribution
30 station reinvestment, driven by demand capital and refurbishments.
- 31 • System Service: System Service capital expenditures are consistent with the 2021 forecast
32 included in the filed materials, with some incremental investment in demand system
33 modifications and a variance related to the cost of the Aroland Battery Energy Storage
34 System.
- 35 • General Plant: General Plant capital expenditures are consistent with the 2021 forecast
36 included in the filed materials, however there are select new and revised needs which are
37 being addressed through incremental information technology expenditures, including

- 1 modern functionality through new office suite applications, and investments to enhance
- 2 identity and access management capabilities and enhance HR and pay processes.

1 **General Plant Capital (Attachments 5 & 6)**

2 See above.

3
4 **Distribution Number of Customers**

5 Please see D-LPMA-018 for a discussion on load forecast and number of customer updates.

6
7 **Distribution and Transmission OM&A (Attachments 7 & 8)**

8 OM&A expenditures are generally consistent with the 2021 forecast included in the filed
9 materials. However, in 2021 the Distribution business experienced a higher than planned volume
10 of trouble call and storm response, customer disconnect/reconnect and cable locates.

11
12 **Employee Costs (Attachment 9)**

13 See attached.

14
15 **Updated Forecasts for 2021 and 2022**

16 Other interrogatories requested Hydro One to re-forecast year-end values for 2021 and 2022. This
17 data is currently unavailable, as Hydro One is in the midst of a business planning cycle for 2022
18 which is not complete and has not yet been approved by Hydro One's Board of Directors.

Revised Appendix 2-AB
Table 2 - Capital Expenditure Summary from Chapter 5 Consolidated

First year of Forecast Period: 2023																								
CATEGORY	Historical Period (previous plan1 & actual)																		Forecast Period (planned)					
	2018			2019				2020				2021				2022			2023	2024	2025	2026	2027	
	Plan	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	As-Filed Forecast	Var (Plan to As-Filed)	Plan	As-Filed Forecast	Var (Plan to As-Filed)						
			%												%			%						
System Access	24.3	33.7	39%		30.7	46.2	--	24.8	11.5	19.5	-21%	11.3	45.3	40.1	256%	11.7	31.5	168%	79.4	70.9	59.8	36.5	50.1	
System Renewal	780.4	776.2	-1%		590.0	792.6	--	810.1	565.3	804.0	-1%	982.8	675.6	739.6	-25%	958.2	971.5	1%	1,178.0	1,228.3	1,251.6	1,277.3	1,264.0	
System Service*	75.6	73.9	-2%		66.4	85.6	--	198.4	135.6	196.1	-1%	148.2	170.2	223.9	51%	151.8	122.0	-20%	90.9	101.6	85.8	93.1	90.1	
General Plant	119.7	83.6	-30%		34.2	92.1	--	111.1	73.8	124.7	12%	94.4	102.4	137.8	46%	94.7	102.8	9%	146.8	124.0	114.2	115.9	105.0	
Progressive Productivity								- 17.0				- 39.0				- 61.0	- 48.1		- 61.0	- 61.0	- 61.0	- 61.0	- 61.0	
Other**								- 25.5				- 28.4				- 29.1								
TOTAL EXPENDITURE	1,000.0	967.3	-3%	-	721.3	1,016.5	--	1,101.9	786.1	1,144.4	4%	1,169.2	993.5	1,141.5	-2%	1,126.4	1,179.7	5%	1,434.0	1,463.9	1,450.4	1,461.8	1,448.2	
System O&M***	\$ 394.3	\$ 419.2	6%			\$ 357.9	--	\$ 385.0		\$ 398.5	3%			\$ 389.0	--	\$ 393.4	--	\$ 420.5						

* The 2019-2022 Actuals exclude new transmission line facilities for Chatham and Lakeshore (West of Chatham), Lambton and Chatham (West of London) and Northwest Bulk Transmission Line Project (Waasigan).

** Includes OPEB, pension and compensation directive adjustments.

*** System O&M reflects total Operations, Maintenance and Administration expenses. 2024 - 2027 is determined based on the escalation factor identified in Exhibit A-04-02.

Notes to the Table:

1. Historical "previous plan" data is not required unless a plan has previously been filed. However, use the last Board-approved, at least on a Total (Capital) Expenditure basis for the last cost of service rebasing year, and the applicant should include their planned budget in each subsequent historical year up to and including the Bridge Year.
2. Indicate the number of months of 'actual' data included in the last year of the Historical Period (normally a 'bridge' year):

Explanatory Notes on Variances (complete only if applicable)
Notes on shifts in forecast vs. historical budgets by category
TSP Section 2.9
Notes on year over year Plan vs. Actual variances for Total Expenditures
TSP Section 2.9
Notes on Plan vs. Actual variance trends for individual expenditure categories
TSP Section 2.9

Appendix 2-AA
Capital Projects Table (\$M)

Projects	2018 Actual	2019 Q3 YTD Actual	2019 Actual	2020 Q3 YTD Actual	2020 Actual	2021 Q3 YTD Actual	2021 Forecast	2022 Forecast	2023 Test	2024 Test	2025 Test	2026 Test	2027 Test
Reporting Basis	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
System Access													
Generator Customer Connection	0.3	1.5	0.5	0.9	2.2	0.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Load Customer Connection	28.5	25.7	40.1	6.9	18.4	40.4	38.3	25.9	41.6	68.1	57.0	35.6	49.3
Component Replacement Programs and	4.4	4.1	5.9	1.1	-1.7	4.2	0.5	5.5	37.8	2.8	2.8	0.8	0.8
P&C Enablement for Generation Connections	0.5	-0.6	-0.3	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	33.7	30.7	46.2	11.5	19.5	45.3	40.1	31.5	79.4	70.9	59.8	36.5	50.1
System Renewal													
Ancillary Systems	0.7	0.1	0.1	-15.7	-15.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Circuit Breakers	0.1	0.6	1.3	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Integrated Station Investment	410.7	317.2	426.8	359.0	499.7	427.1	359.8	512.5	733.3	722.5	699.6	698.3	728.8
IT Security	22.9	17.3	24.5	20.6	35.9	25.1	40.9	34.4	0.0	0.0	0.0	0.0	0.0
Other Power Equipment	0.3	0.1	0.2	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Component Replacement Programs	221.2	177.7	230.5	133.9	196.0	177.9	243.8	297.2	271.2	338.5	406.0	455.1	438.4
Power Transformers	-0.7	-2.7	-2.7	-2.6	-2.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Protection and Automation	21.6	13.2	18.6	9.6	14.4	14.0	29.6	54.5	81.6	88.4	87.5	68.9	36.1
Site Facilities and Infrastructure	0.3	0.1	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tx Transformers Demand and Spares	82.6	57.5	78.2	53.6	68.3	28.0	51.3	45.4	50.7	51.5	52.2	53.2	54.1
Underground Lines Cable Refurbishment & Replace	16.5	8.9	14.9	6.1	7.1	3.8	14.2	27.6	41.1	27.4	6.4	1.9	6.6
Sub-Total	776.1	590.0	792.6	565.3	804.0	675.6	739.6	971.5	1,178.0	1,228.3	1,251.6	1,277.3	1,264.0
System Service*													
Inter Area Network Transfer Capability	48.9	47.8	57.9	100.2	144.8	136.5	174.4	86.2	31.5	25.1	24.5	65.4	60.4
Local Area Supply Adequacy	20.7	12.8	19.7	28.3	41.6	31.6	44.9	34.1	54.9	74.0	58.8	25.8	27.7
Performance Enhancement	0.0	0.2	0.6	3.2	3.2	0.0	0.7	1.2	2.5	0.5	0.5	0.0	0.0
Power Quality	1.4	2.2	3.1	1.2	1.9	0.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0
Risk Mitigation	2.6	3.4	4.2	2.6	4.6	1.5	3.2	0.5	2.0	2.0	2.0	2.0	2.0
Smart Grid	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	73.9	66.4	85.6	135.6	196.1	170.2	223.9	122.0	90.9	101.6	85.8	93.1	90.1
General Plant													
Fleet	9.3	2.0	15.0	3.3	13.5	2.4	14.4	14.9	25.8	26.4	26.7	27.0	27.9
Facilities & Real Estate	23.4	8.0	16.0	5.7	19.7	9.8	15.4	15.5	26.0	24.9	17.5	18.2	14.8
Information Solutions	42.0	28.2	47.1	29.3	42.2	32.6	30.1	29.1	57.4	46.5	45.0	43.7	35.9
System Operations	3.8	1.7	6.0	23.2	38.8	49.5	59.0	21.8	12.0	3.8	4.2	4.8	4.2
Operating Infrastructure	5.8	6.6	8.7	5.5	7.5	6.0	18.9	21.5	25.5	22.4	20.9	22.2	22.3
Other	-0.7	-12.3	-0.7	6.8	3.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	83.6	34.2	92.1	73.8	124.7	102.4	137.8	102.8	146.8	124.0	114.2	115.9	105.0
Progressive Productivity								-48.1	-61.0	-61.0	-61.0	-61.0	-61.0
Total	967.3	721.3	1,016.5	786.1	1,144.4	993.5	1,141.5	1,179.7	1,434.0	1,463.9	1,450.4	1,461.8	1,448.2
Less Renewable Generation Facility Assets and													
Total	967.3		1,016.5		1,144.4		1,141.5	1,179.7	1,434.0	1,463.9	1,450.4	1,461.8	1,448.2

* The 2019-2022 Actuals exclude new transmission line facilities for Chatham and Lakeshore (West of Chatham), Lambton and Chatham (West of London) and Northwest Bulk Transmission Line Project (Waasigan).

Notes:

- Please provide a breakdown of the major components of each capital project undertaken in each year. Please ensure that all projects below the materiality threshold are included in the miscellaneous line. Add more projects as required.
- The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the capital budget in the miscellaneous category.

Appendix 2-AB
Table 2 - Capital Expenditure Summary from Chapter 5 Consolidated Distribution System Plan Filing Requirements

First year of Forecast Period: 2023																								
CATEGORY	Historical Period (previous plan ¹ & actual)																	Forecast Period (planned)						
	2018			2019				2020				2021				2022			2023	2024	2025	2026	2027	
	Plan	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	As-Filed Forecast	Var (Plan to As-Filed)	Plan	As-Filed Forecast ²	Var (Plan to As-Filed)						
			%				%				%				%			%						
System Access	175.1	175.1	0%	147.9	144.1	197.3	33%	153.4	141.7	193.6	26%	150.9	162.1	171.5	14%	143.0	180.8	26%	239.6	240.6	227.0	212.6	204.3	
System Renewal	219.7	219.7	0%	202.3	156.3	189.0	-7%	222.2	162.5	228.6	3%	237.3	176.2	236.1	-1%	256.7	224.9	-12%	373.1	410.3	494.2	491.5	497.8	
System Service	79.1	79.1	0%	124.0	59.4	112.8	-9%	129.4	84.2	98.1	-24%	144.1	83.7	132.6	-8%	103.0	153.2	49%	196.5	169.7	229.6	192.0	205.9	
General Plant	90.7	90.7	0%	142.8	9.9	114.3	-20%	150.3	104.0	178.2	19%	95.3	127.3	173.8	82%	100.4	105.7	5%	195.9	207.4	170.1	175.5	162.9	
TOTAL EXPENDITURE	564.5	564.5	0%	617.1	369.6	613.4	-1%	655.3	492.4	698.6	7%	627.6	549.3	714.0	14%	603.2	664.6	10%	1,005.1	1,028.0	1,120.8	1,071.7	1,070.9	
System OM&A	\$ 544.4	\$ 558.8	3%			\$ 559.6	--			\$ 560.2	--	--	\$ 438.0	\$ 531.4	--	--	\$ 535.8	--	\$ 597.5	*	*	*	*	

* System OM&A includes Operations, Maintenance and Administration expenses. System OM&A for 2024 - 2027 is determined based on the escalation factor identified in Exhibit A-04-3.

** 2022 is Bridge Year Forecast

Notes to the Table:

1. Historical "previous plan" data is not required unless a plan has previously been filed. However, use the last Board-approved, at least on a Total (Capital) Expenditure basis for the last cost of service rebasing year, and the applicant should include their planned budget in each subsequent historical year up to and including the Bridge Year.
2. Indicate the number of months of 'actual' data included in the last year of the Historical Period (normally a 'bridge' year):

Explanatory Notes on Variances (complete only if applicable)
Notes on shifts in forecast vs. historical budgets by category
For a more detailed explanation of shifts in forecast vs historical expenditures, please see DSP Section 3.9
Notes on year over year Plan vs. Actual variances for Total Expenditures
See DSP Section 3.9 Appendix B "Capital Program Performance Report 2019, 2020"
Notes on Plan vs. Actual variance trends for individual expenditure categories
See DSP Section 3.9 Appendix B "Capital Program Performance Report 2019, 2020"

Appendix 2-AA
Capital Projects Table (\$M)

Projects	2018	2019 Q3 YTD	2019	2020 Q3 YTD	2020	2021 Q3 YTD	2021 Bridge	2022 Bridge	2023 Test	2024 Test	2025 Test	2026 Test	2027 Test
Reporting Basis	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
System Access													
D-SA-01 Joint Use and Relocations	20.4	23.0	28.8	18.3	26.2	24.6	21.4	19.1	24.8	29.0	27.0	26.5	27.2
D-SA-02 New Load Connections, Upgrades, Cancellations	121.2	101.6	141.7	107.5	146.4	124.5	130.6	141.7	150.7	154.6	158.5	162.5	166.7
D-SA-03 Customer Demand Distributed Energy Resources	6.7	5.3	6.6	2.4	2.2	-2.1	1.9	1.4	1.4	1.4	1.4	1.4	1.4
D-SA-04 Metering Sustainment	26.8	14.2	20.1	13.5	18.8	16.8	17.6	18.5	62.6	55.6	40.1	22.2	8.9
D-SA-Other	0.0	0.0	0.0	0.0	0.0	-1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	175.1	144.1	197.3	141.7	193.6	162.1	171.5	180.8	239.6	240.6	227.0	212.6	204.3
System Renewal													
D-SR-01 Distribution Stations Demand Capital Program	6.6	3.3	5.6	6.2	9.8	7.6	4.9	5.0	6.2	6.3	6.4	6.5	6.7
D-SR-02 Mobile Unit Substation Program	1.3	5.9	6.9	3.8	4.0	0.9	4.2	4.3	3.5	4.2	2.9	3.3	4.6
D-SR-03 Distribution Station Planned Component Replacement Program	5.0	6.2	7.7	7.0	8.8	6.9	6.9	7.1	4.6	3.3	1.1	1.2	1.2
D-SR-04 Distribution Station Refurbishment	11.7	12.1	16.5	5.9	7.4	8.1	6.9	3.2	44.8	41.5	28.5	32.3	32.1
D-SR-05 Distribution Lines Trouble Call and Storm Damage Response	112.7	64.8	74.6	75.7	118.4	70.0	92.3	93.8	106.0	108.1	110.3	112.5	114.7
D-SR-06 Distribution Lines PCB Equipment Replacement Program	6.3	6.6	8.1	3.5	4.8	4.8	9.5	9.5	9.4	9.5	9.5	0.0	0.0
D-SR-07 Pole Sustainment Program	52.0	37.7	44.3	36.8	43.6	52.4	73.4	60.1	107.9	110.6	112.4	114.9	116.8
D-SR-08 Distribution Lines Minor Component Replacement Program	1.4	3.3	4.9	4.9	6.3	7.0	12.4	12.3	12.4	14.5	13.5	8.6	7.1
D-SR-09 Submarine Cable Replacement Program	3.2	5.3	6.3	5.6	6.7	5.1	10.9	11.1	12.2	12.5	12.7	13.0	13.2
D-SR-10 Distribution Lines Sustainment Initiatives	7.8	7.4	8.1	9.7	11.7	8.7	10.7	13.7	31.5	30.3	35.3	43.2	42.7
D-SR-11 Life Cycle Optimization & Operational Efficiency Projects	9.1	2.4	3.9	2.4	6.2	3.6	2.5	0.2	2.8	6.5	7.1	0.8	0.4
D-SR-12 Advanced Meter Infrastructure 2.0 (AMI 2.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.9	30.9	62.0	153.7	154.4	157.3
D-SR-Other	2.6	1.2	2.0	0.9	0.9	1.3	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Sub-Total	219.7	156.3	189.0	162.5	228.6	176.2	236.1	224.9	373.1	410.3	494.2	491.5	497.8
System Service													
D-SS-01 System Upgrades Driven by Load Growth	26.5	25.6	45.2	42.6	50.7	42.7	97.1	108.5	98.2	76.3	127.5	76.1	100.2
D-SS-02 Reliability Improvements	1.7	2.2	4.1	3.7	4.6	2.5	3.8	3.7	7.3	0.1	6.5	18.6	7.5
D-SS-03 Demand System Modifications	7.9	8.8	11.8	10.2	14.0	11.1	7.5	10.9	13.2	13.4	13.7	13.9	14.2
D-SS-04 Energy Storage Solutions	0.1	0.8	1.6	5.6	5.0	4.0	3.7	4.2	34.3	35.0	35.6	36.3	36.0
D-SS-05 Worst Performing Feeders	8.3	14.7	21.9	17.6	20.7	13.8	17.0	22.0	39.6	40.9	42.2	43.0	43.8
D-SS-06 Power Quality and Stray Voltage	1.0	1.2	1.3	1.0	1.2	2.6	3.3	3.4	3.8	3.9	4.0	4.0	4.1
D-SS-Other	33.6	6.1	26.9	3.4	2.0	6.9	0.1	0.4	0.1	0.1	0.1	0.1	0.1
Sub-Total	79.1	59.4	112.8	84.2	98.1	83.7	132.6	153.2	196.5	169.7	229.6	192.0	205.9
General Plant Allocated to Distribution													
Fleet	18.1	3.6	29.0	6.1	25.7	4.3	28.3	28.5	50.6	51.7	52.2	53.0	54.7
Facilities & Real Estate	13.7	6.4	15.6	25.2	45.0	17.0	23.7	26.5	65.4	67.2	44.2	39.9	35.7
Information Solutions	52.3	42.8	67.4	52.7	76.2	57.9	66.1	44.0	62.5	71.6	68.5	78.5	70.2
System Operations	5.3	1.3	4.7	21.3	32.8	47.9	55.7	5.7	15.4	14.7	4.0	3.2	2.3
System Capability Reinforcement	2.9	-0.7	-1.0	0.1	-0.7	0.8	0.0	1.0	2.0	2.2	1.1	1.0	0.0
Other	-1.7	-43.6	-1.5	-1.4	-0.9	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	90.7	9.9	114.3	104.0	178.2	127.3	173.8	105.7	195.9	207.4	170.1	175.5	162.9
Total	564.5	369.6	613.4	492.4	698.6	549.3	714.0	664.6	1,005.1	1,028.0	1,120.8	1,071.7	1,070.9
Less Renewable Generation Facility Assets and Other Non-Rate-Regulated Utility Assets (input as negative)													
Total	564.5	369.6	613.4	492.4	698.6	549.3	714.0	664.6	1,005.1	1,028.0	1,120.8	1,071.7	1,070.9

Notes:

- 1 Please provide a breakdown of the major components of each capital project undertaken in each year. Please ensure that all projects below the materiality threshold are included in the miscellaneous line. Add more projects as required.
- 2 The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the capital budget in the miscellaneous category.

Appendix 2-AB
Capital Expenditure Summary from Chapter 5 Consolidated Distribution System Plan Filing Requirements
Distribution System Plan Filing Requirements (\$M)

First year of Forecast Period: 2023

CATEGORY	Historical Period (previous plan and actual/forecast)															Bridge			Forecast Period (planned)				
	2018			2019				2020				2021				2022			2023	2024	2025	2026	2027
	Plan	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	Actual	Var	Plan	Q3 YTD Actual	As-Filed Forecast ¹	Var (Plan to As-	Plan	As-Filed Forecast ²	Var (Plan to As-					
			%				%				%				%			%					
General Plant Allocated to Transmission	119.7	83.6	-30%	NA	34.2	92.1	NA	111.1	73.8	124.7	12%	94.4	102.4	137.8	46%	94.7	102.8	9%	146.8	124.0	114.2	115.9	105.0
General Plant Allocated to Distribution	90.7	90.7	0%	142.8	9.9	114.3	-20%	150.3	104.0	178.2	19%	95.3	127.3	173.8	82%	100.4	105.7	5%	195.9	207.4	170.1	175.5	162.9
Total General Plant	NA	174.3		NA	44.1	206.4		NA	177.8	302.9		NA	229.7	311.7		NA	208.5		342.7	331.4	284.3	291.4	268.0

Notes to the Table:
1. 2021 data is based on a 12-month forecast
2. 2022 data is based on a 12-month forecast

Explanatory Notes on Variances (complete only if applicable)
Notes on shifts in forecast vs. historical budgets by category
For a more detailed explanation of shifts in forecast vs historical expenditures, please see GSP Section 4.9 Capital Expenditures - Trends and Variances
Notes on year over year Plan vs. Actual variances for Total Expenditures
For a more detailed explanation of shifts in forecast vs historical expenditures, please see GSP Section 4.9 Capital Expenditures - Trends and Variances, and GSP Section 4.9 Attachment 2 General Plant Capital Performance Report
Notes on Plan vs. Actual variance trends for individual expenditure categories
For a more detailed explanation of shifts in forecast vs historical expenditures, please see GSP Section 4.9 Capital Expenditures - Trends and Variances, and GSP Section 4.9 Attachment 2 General Plant Capital Performance Report

Appendix 2-AA
Capital Projects and Programs Table for General Plant (\$M)

General Plant Capital Projects and Programs	2018	2019 Q3 YTD	2019	2020 Q3 YTD	2020	2021 Q3 YTD	2021 Forecast	2022 Bridge	2023 Test	2024 Test	2025 Test	2026 Test	2027 Test
Reporting Basis	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
General Plant Allocated to Hydro One Transmission													
Fleet	9.3	2.0	15.0	3.3	13.5	2.4	14.4	14.9	25.8	26.4	26.7	27.0	27.9
Facilities & Real Estate	23.4	8.0	16.0	5.7	19.7	9.8	15.4	15.5	26.0	24.9	17.5	18.2	14.8
Information Solutions	42.0	28.2	47.1	29.3	42.2	32.6	30.1	29.1	57.4	46.5	45.0	43.7	35.9
System Operations	3.8	1.7	6.0	23.2	38.8	49.5	59.0	21.8	12.0	3.8	4.2	4.8	4.2
Operating Infrastructure	5.8	6.6	8.7	5.5	7.5	6.0	18.9	21.5	25.5	22.4	20.9	22.2	22.3
System Capability Reinforcement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	-0.7	-12.3	-0.7	6.8	3.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total GP Allocated to Transmission	83.6	34.2	92.1	73.8	124.7	102.4	137.8	102.8	146.8	124.0	114.2	115.9	105.0
General Plant Allocated to Hydro One Distribution													
Fleet	18.1	3.6	29.0	6.1	25.7	4.3	28.3	28.5	50.6	51.7	52.2	53.0	54.7
Facilities & Real Estate	13.7	6.4	15.6	25.2	45.0	17.0	23.7	26.5	65.4	67.2	44.2	39.9	35.7
Information Solutions	52.3	42.8	67.4	52.7	76.2	57.9	66.1	44.0	62.5	71.6	68.5	78.5	70.2
System Operations	5.3	1.3	4.7	21.3	32.8	47.9	55.7	5.7	15.4	14.7	4.0	3.2	2.3
Operating Infrastructure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
System Capability Reinforcement	2.9	-0.7	-1.0	0.1	-0.7	0.8	0.0	1.0	2.0	2.2	1.1	1.0	0.0
Other	-1.7	-43.6	-1.5	-1.4	-0.9	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total GP Allocated to Distribution	90.7	9.9	114.3	104.0	178.2	127.3	173.8	105.7	195.9	207.4	170.1	175.5	162.9
Total General Plant													
Total General Plant	174.3	44.1	206.4	177.8	302.9	229.7	311.7	208.5	342.7	331.4	284.3	291.4	268.0

Notes:

- 1 Please provide a breakdown of the major components of each capital project undertaken in each year. Please ensure that all projects below the materiality threshold are included in the miscellaneous line. Add more projects as required.
- 2 The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the capital budget in the miscellaneous category.

Appendix 2-JC
Transmission OM&A Programs Table

(\$M)

Programs	2018 Actuals	2019 Actuals	2020 Board Approved	2020 Actuals	2021 Q3 YTD Actuals	2021 Forecast	2022 Bridge Year	2023 Test Year	Variance (Test Year vs. 2020 Actuals)	Variance (Test Year vs. 2020 Approved)
Reporting Basis	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
Sustainment										
Land Assessment and Remediation	1.3	1.0		0.7	0.4	0.9	0.9	0.9	0.3	
Environment Management	13.9	12.5		15.9	17.1	22.1	23.0	15.1	-0.8	
Power Equipment	60.1	50.8		43.1	31.6	45.0	44.7	52.6	9.5	
Ancillary System Maintenance	8.3	9.1		8.0	6.6	7.5	7.4	9.3	1.3	
Protection, Control, Monitoring, Metering and Telecommunications (including cybersecurity)	55.1	51.2		52.9	42.9	52.2	54.5	58.7	5.7	
Site Infrastructure Maintenance	22.7	19.5		20.7	15.0	20.9	21.3	22.8	2.1	
Rights of Way	37.3	31.9		32.6	26.2	32.4	32.3	33.0	0.4	
Overhead Lines	18.9	18.3		17.2	10.8	15.6	15.8	18.2	0.9	
Underground Cables	7.6	5.6		4.3	3.5	4.0	3.7	4.0	-0.3	
Engineering & Environmental Support	4.1	7.9		5.4	4.7	4.7	4.7	5.0	-0.4	
Sub-Total	229.4	207.8		200.9	158.7	205.2	208.3	219.6	18.7	
Development										
Transmission Standards Program	2.8	2.5		4.1	3.1	4.0	4.0	4.3	0.1	
Research Development and Demonstration	2.2	1.8		2.3	2.1	3.4	3.9	3.3	1.0	
Customer Power Quality Program	0.2	0.1		0.2	0.2	0.9	1.0	1.0	0.8	
Sub-Total	5.2	4.4		6.7	5.4	8.3	8.9	8.6	1.9	
Operating										
Operations Contracts	19.5	20.2		19.5	15.3	22.3	20.8	22.6	3.1	
Environmental, Health and Safety	1.4	2.0		1.1	0.6	1.5	1.4	1.4	0.4	
Operators	32.5	28.8		27.3	19.4	25.0	26.4	25.0	-2.3	
Sub-Total	53.4	51.0		47.9	35.3	48.8	48.6	49.0	1.1	
Customer										
Customer Service OM&A	11.0	7.2		7.0	4.3	6.0	6.7	6.9	-0.2	
Sub-Total	11.0	7.2		7.0	4.3	6.0	6.7	6.9	-0.2	
Common Functions and Services										
Corporate Management	3.9	2.4		2.7	2.2	1.9	2.0	2.1	-0.7	
Finance	20.8	17.5		15.8	10.5	14.5	14.8	14.4	-1.5	
Human Resources	10.4	10.9		12.4	7.6	10.2	11.0	12.4	0.0	
Indigenous Relations, Communications and Stakeholder Relations, and Outsourcing Services	4.6	4.5		4.4	4.6	7.2	7.3	7.6	3.1	
General Counsel	5.0	4.3		5.2	4.5	4.5	4.7	4.8	-0.4	
Regulatory Affairs	9.2	9.0		9.6	8.5	10.6	11.6	10.6	1.0	
Security Management	2.9	2.1		1.6	1.2	2.6	3.0	3.1	1.5	
Internal Audit	3.0	2.9		2.4	1.8	3.0	3.2	3.3	0.9	
Facilities and Real Estate	32.7	34.7		34.3	26.2	36.2	37.3	38.7	4.3	
Sub-Total	92.5	88.2		88.6	67.1	90.7	94.9	96.9	8.3	
Asset Management (Planning) costs										
Sub-Total	31.0	26.7		25.3	20.1	25.2	26.6	27.4	2.1	
Information Technology										
Information Technology	50.4	53.7		51.2	40.3	51.4	51.2	53.7	2.5	
Sub-Total	50.4	53.7		51.2	40.3	51.4	51.2	53.7	2.5	
Miscellaneous										
Cost of Sales	8.4	3.7		7.7	4.6	6.4	4.9	5.7	-2.0	
Other Recovery	-127.4	-145.6		-102.3	-85.2	-122.1	-126.8	-118.7	-16.4	
Property Taxes & Rights Payments	65.3	60.8		65.4	47.1	69.1	70.2	71.4	5.9	
									0.0	
									0.0	
									0.0	
Sub-Total	-53.7	-81.1		-29.2	-33.5	-46.6	-51.8	-41.6	-12.4	
Total	419.2	357.9	385.0	398.5	297.6	389.0	393.4	420.5	22.0	35.5

Notes:

- Please provide a breakdown of the major components of each OM&A Program undertaken in each year. Please ensure that all Programs below the materiality threshold are included in the miscellaneous line. Add more Programs as required.
- The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the OM&A budget in the miscellaneous category

Appendix 2-JC
Distribution OM&A Programs Table

(\$M)

	2018 Board Approved	2018 Actuals	2019 Actuals	2020 Actuals	2021 Q3 YTD Actuals	2021 Forecast	2022 Bridge Year	2023 Test Year	Variance (Test Year vs. 2020 Actuals)	Variance (Test Year vs. 2018 Board-Approved)
Programs										
Reporting Basis	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
Sustainment										
Stations		21.8	20.1	22.2	17.0	21.2	20.5	20.2	-2.0	
Lines		133.3	149.0	149.9	127.5	121.2	125.3	132.0	-17.9	
Meters, Telecom & Control		17.7	15.5	14.9	11.0	17.5	17.5	19.8	4.9	
Vegetation Management		139.5	162.4	137.9	104.9	139.6	140.3	139.4	1.5	
Sub-Total		312.3	347.1	324.9	260.4	299.6	303.6	311.4	-13.5	
Development										
Engineering & Technical Studies		1.9	1.8	1.5	1.6	2.1	2.2	2.0	0.5	
Distribution Generation Connections		1.7	2.4	1.5	1.9	1.5	1.5	1.5	-0.1	
Distribution Standards Program		0.6	0.2	0.5	0.6	1.2	1.4	1.5	0.9	
Research Development & Demonstration		3.2	2.6	2.3	1.9	5.0	5.0	5.9	3.6	
Customer Power Quality Program		0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	
Sub-Total		7.5	7.1	6.0	6.0	10.0	10.2	11.0	5.1	
Operating										
Operations Support		3.6	13.0	12.1	8.8	13.2	13.8	12.0	-0.1	
Operations		20.7	18.4	18.4	18.4	23.8	25.9	27.0	8.6	
Health, Safety & Environment		1.8	1.9	1.0	0.6	1.3	1.3	1.3	0.3	
Smart Grid		11.2	3.4	1.5	0.4	1.3	0.4	0.5	-1.1	
Sub-Total		37.3	36.6	33.0	28.2	39.7	41.3	40.8	7.8	
Customer										
Customer Service OM&A		111.7	97.8	111.2	80.2	108.6	107.9	118.3	7.1	
Sub-Total		111.7	97.8	111.2	80.2	108.6	107.9	118.3	7.1	
Common Functions and Services										
Corporate Management		4.0	2.9	2.5	1.9	2.7	2.7	2.8	0.3	
Finance		15.0	13.0	12.9	11.8	15.8	16.2	15.7	2.8	
Human Resources		9.7	9.0	9.7	8.0	10.0	10.8	12.1	2.4	
Indigenous Relations, Communications and Stakeholder Relations, and Outsourcing Services		7.5	7.5	7.2	6.9	6.9	7.1	7.3	0.1	
General Counsel		3.2	3.4	4.2	4.1	3.9	4.0	4.1	-0.1	
Regulatory Affairs		10.8	10.7	11.2	8.2	10.3	11.0	10.3	-0.8	
Security Management		2.3	1.7	1.4	1.3	2.2	2.6	2.6	1.3	
Internal Audit		2.3	2.6	2.1	1.9	3.0	3.2	3.4	1.3	
Real Estate and Facilities		25.2	26.1	25.2	20.1	29.0	29.7	30.8	5.6	
Sub-Total		80.1	76.9	76.4	64.2	83.8	87.2	89.1	12.7	
Asset Management (Planning) costs										
Sub-Total		15.7	13.5	14.2	10.9	13.6	14.4	14.9	0.7	
Information Technology										
Information Technology		73.8	81.1	78.4	65.7	83.8	81.5	85.9	7.5	
Sub-Total		73.8	81.1	78.4	65.7	83.8	81.5	85.9	7.5	
Miscellaneous										
Cost of Sales		10.4	5.3	4.1	3.1	4.0	4.4	4.4	0.3	
Other Recovery		-95.1	-110.5	-93.4	-84.7	-117.3	-120.6	-84.3	9.1	
Property Taxes & Rights Payments		5.1	4.6	5.4	4.0	5.6	5.8	6.0	0.6	
Sub-Total		-79.6	-100.6	-83.8	-77.7	-107.7	-110.3	-73.9	9.9	
Total	544.4	558.8	559.6	560.2	438.0	531.4	535.8	597.5	37.3	53.1

Notes:

- Please provide a breakdown of the major components of each OM&A Program undertaken in each year. Please ensure that all Programs below the materiality threshold are included in the miscellaneous line. Add more Programs as required.
- The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the OM&A budget in the miscellaneous category

Appendix 2-K
Employee Costs

FTE Levels

	Transmission				Distribution			
	2019 Q3	2020 Q3	2021 Q3	2021 Plan	2019 Q3	2020 Q3	2021 Q3	2021 Plan
	YTD	YTD	YTD		YTD	YTD	YTD	
Staff	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
Headcount Q3								
Regular - MGT/non-represented	300	320	342		301	316	356	
Regular - Society	824	832	939		584	610	697	
Regular - PWU	1,049	1,079	1,074		2,428	2,474	2,583	
Temporary - MGT/non-represented	8	11	14		8	15	16	
Temporary - Society	20	15	22		19	13	17	
Temporary - PWU	61	47	57		59	34	41	
Casual Trades	1,904	1,911	1,937		1,142	1,199	1,174	
Total	4,165	4,214	4,385		4,541	4,662	4,885	

FTE (Average month-end Jan-Sept)

	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
Regular - MGT/non-represented	220	233	252	347	220	231	256	348
Regular - Society	615	620	679	963	437	451	511	694
Regular - PWU	801	820	811	1,090	1,858	1,892	1,948	2,608
Temporary - MGT/non-represented	7	7	10	8	7	10	12	4
Temporary - Society	14	12	13	20	12	13	12	14
Temporary - PWU	53	40	43	65	57	31	29	61
Casual Trades	1,331	1,225	1,419	1,656	820	757	823	1,056
Total	3,042	2,958	3,226	4,149	3,412	3,385	3,591	4,787

Total FTE Levels

	Shareholder Allocated (SA)				Total Tx+Dx+SA			
	2019 Q3	2020 Q3	2021 Q3	2021 Plan	2019 Q3	2020 Q3	2021 Q3	2021 Plan
	YTD	YTD	YTD		YTD	YTD	YTD	
Staff	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
FTE (Average month-end Jan-Sept)	39	33	37	54	6,494	6,375	6,855	8,990

Breakdown of Compensation by Type of Pay

	Transmission				Distribution			
	2019 Q3	2020 Q3	2021 Q3	2021 Plan	2019 Q3	2020 Q3	2021 Q3	2021 Plan
	YTD	YTD	YTD		YTD	YTD	YTD	
Salary & Incentive Pay	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Base Pay								
Regular - MGT/non-represented	27,064	29,179	32,820	44,609	26,875	28,177	32,838	44,280
Regular - Society	66,476	69,704	81,813	110,132	46,804	48,726	59,505	78,917
Regular - PWU	77,514	79,796	87,165	105,151	167,033	172,381	197,099	236,857
Temporary - MGT/non-represented	563	561	776	735	577	596	1,015	335
Temporary - Society	1,168	1,090	1,208	1,790	974	1,109	1,032	1,240
Temporary - PWU	3,631	2,507	2,990	4,236	3,599	1,948	2,091	3,956
Casual Trades	88,268	81,433	101,352	133,067	48,093	42,220	51,251	73,173
Total	264,684	264,270	308,125	399,719	293,955	295,157	344,831	438,757
Overtime	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - Society	3,335	2,833	4,087	5,644	2,784	2,970	4,351	5,487
Regular - PWU	11,249	11,327	14,939	17,123	32,250	36,955	42,765	55,655
Temporary - Society	11	17	24	31	8	11	31	14
Temporary - PWU	64	33	29	77	74	32	42	84
Casual Trades	10,006	9,811	12,016	19,360	4,844	5,039	5,617	11,743
Total	24,665	24,021	31,096	42,234	39,960	45,007	52,806	72,982
Performance Dollars	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - MGT/non-represented	7,741	5,928	6,664	9,048	7,537	5,720	6,318	8,831
Total	7,741	5,928	6,664	9,048	7,537	5,720	6,318	8,831
Share Grants	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - Society	1,756	1,773	1,772	1,382	980	894	912	997
Regular - PWU	2,287	2,347	2,118	1,771	4,166	3,752	3,474	4,234
Total	4,043	4,120	3,890	3,152	5,146	4,646	4,386	5,231
ESOP	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - MGT/non-represented	594	629	614	797	501	507	599	791
Regular - Society	29	121	89	129	25	108	89	141
Total	623	750	703	926	527	614	688	932
Burdens	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - MGT/non-represented	12,741	13,737	15,451	21,001	12,643	13,255	15,448	20,831
Regular - Society	28,666	30,058	35,280	47,492	20,183	21,012	25,660	34,031
Regular - PWU	33,426	34,410	37,588	45,344	72,029	74,335	84,994	102,139
Temporary - MGT/non-represented	38	38	52	49	39	40	68	23
Temporary - Society	79	73	81	120	66	75	69	83
Temporary - PWU	244	169	201	285	242	131	141	266
Casual Trades	40,504	39,837	48,792	54,524	26,024	24,265	29,738	45,627
Total	115,698	118,322	137,445	168,815	131,226	133,113	156,119	202,999

Total Compensation

	Transmission				Distribution			
	2019 Q3	2020 Q3	2021 Q3		2019 Q3	2020 Q3	2021 Q3	
	YTD	YTD	YTD	2021 Plan	YTD	YTD	YTD	2021 Plan
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Regular - MGT/non-represented	48,140	49,472	55,549	75,455	47,556	47,658	55,203	74,733
Regular - Society	100,262	104,489	123,042	164,779	70,776	73,709	90,517	119,573
Regular - PWU	124,477	127,880	141,809	169,388	275,478	287,424	328,333	398,884
Temporary - MGT/non-represented	600	598	828	784	616	636	1,083	358
Temporary - Society	1,258	1,180	1,313	1,941	1,048	1,195	1,132	1,337
Temporary - PWU	3,939	2,710	3,221	4,598	3,914	2,111	2,273	4,305
Casual Trades	138,778	131,081	162,159	206,951	78,961	71,524	86,606	130,543
Total	417,454	417,409	487,921	623,895	478,349	484,257	565,147	729,733

Compensation & FTE by Capital and OM&A Program

	Transmission				Distribution			
	2019 Q3	2020 Q3	2021 Q3		2019 Q3	2020 Q3	2021 Q3	
	YTD	YTD	YTD	2021 Plan	YTD	YTD	YTD	2021 Plan
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Total Capital Compensation	299,653	300,627	358,545	448,949	241,884	246,569	288,650	372,338
Total OM&A Compensation	117,801	116,782	129,377	174,946	236,465	237,688	276,497	357,394
Total	417,454	417,409	487,921	623,895	478,349	484,257	565,147	729,733

	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
	2019 Q3	2020 Q3	2021 Q3		2019 Q3	2020 Q3	2021 Q3	
	YTD	YTD	YTD	2021 Plan	YTD	YTD	YTD	2021 Plan
Total Capital FTE	2,239	2,189	2,451	3,096	1,644	1,643	1,741	2,338
Total OM&A FTE	803	769	775	1,052	1,768	1,742	1,851	2,449
Total	3,042	2,958	3,226	4,149	3,412	3,385	3,592	4,787

Total Compensation: Transmission + Distribution + Shareholder Allocated

	Shareholder Allocated (SA)				Total Tx+Dx+SA			
	2019 Q3	2020 Q3	2021 Q3		2019 Q3	2020 Q3	2021 Q3	
	YTD	YTD	YTD	2021 Plan	YTD	YTD	YTD	2021 Plan
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Salary & Incentive Pay								
Base Pay	4,962	4,062	4,962	6,858	563,600	563,488	657,918	845,333
Overtime	44	68	121	43	64,669	69,096	84,022	115,260
Performance Dollars	1,618	678	882	2,131	16,895	12,326	13,863	20,010
Share Grants	49	34	32	35	9,238	8,799	8,307	8,418
ESOP	70	70	70	75	1,220	1,434	1,461	1,934
Burdens	2,282	1,868	2,282	3,180	249,206	253,304	295,846	374,995
Total Compensation	9,025	6,780	8,349	12,322	904,828	908,447	1,061,417	1,365,949

A - SCHOOL ENERGY COALITION INTERROGATORY - 003

Reference:

No reference provided

Interrogatory:

SEC seeks to understand the impact of COVID-19 on the information included in the application. Please confirm that all COVID-19 related costs are included or expected to be included in Account 1509. If not confirmed, please identify all COVID-19 related costs contained within the actual and/or forecast cost information included in the application.

Response:

As stated in Exhibit G-01-01 (Sections 4.7 and 6.13), Hydro One has tracked COVID-19 costs in Account 1509. 2020 audited balances are presented in this Application.

Hydro One does not expect to seek recovery of Account 1509 tracked balances at this point. Please refer to the Interrogatory Response to **G-Staff-309**.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-003
Page 2 of 2

1

This page has been left blank intentionally.

Witness: CHHELAVDA Samir

A - SCHOOL ENERGY COALITION INTERROGATORY - 004

Reference:

No reference provided

Interrogatory:

Please provide a copy of each of Hydro One's 'Team Scorecards' from 2018 to 2021, and provide the year-end result for each measure.

Response:

The 2021 Team Scorecard was filed in Exhibit E-06-01 Attachment 3.

The remaining 2018 to 2020 Team Scorecards are attached to this response.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-004
Page 2 of 2

1

This page has been left blank intentionally.

Witness: LILA Sabrin

2018 Team Scorecard

Corporate Goal	Component Weight	Definition	Measure	Sub Component Weight	Performance Levels		
					Threshold	Budget	Maximum
Health and Safety *	10%	Recordable Incidents	Incidents per 200,000 hours	100%	1.3	1.1	1.0
Work Program	25%	Transmissions (Tx) Reliability – average length of unplanned interruptions to multi-circuit supplied delivery points (SAIDI)	Minutes per Delivery Point	25%	9.2	7.6	5.4
		Distribution (Dx) Reliability – average length of outages in hours that a customer experiences (SAIDI)	Hours per Customer	25%	7.5	7.0	6.8
		Tx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$1,174M (Tx following OEB decision)	25%	+/- 6%	+/- 4%	+/-1%
		Dx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$641M (Dx Application)	25%	+/- 5%	+/- 3%	+/-1%
Net Income	30%	Net Income to Common Shareholders	\$M	100%	redacted	redacted	redacted
Productivity	10%	Savings in \$M	\$M	100%	\$103.1	\$114.5	\$140.0
Customer	25%	Residential and Small Business customer satisfaction	Customer Satisfaction	50%	71%	73%	76%
		Tx (including Dx connected LDCs) customer satisfaction	Customer Satisfaction	50%	84%	86%	90%

* If the company has a fatality, the attained Safety measure will be reduced by 50% based on the findings of the System Investigation

2019 Team Scorecard

2019 Team Scorecard							
Corporate Goal	Component Weight	Definition	Measure	Sub Component Weight	Performance Levels		
					Threshold	Target	Exceeds
Health and Safety *	10%	Recordable Incidents	Incidents per 200,000 hours	100%	1.11	1.05	0.99
Work Program	25%	Transmissions (Tx) Reliability – average length of unplanned interruptions to multi-circuit supplied delivery points (SAIDI)	System Average Interruption Duration Index – mc (minutes)	25%	8.4	8.1	6.3
		Distribution (Dx) Reliability – average length of outages in hours that a customer experiences (SAIDI)	System Average Interruption Duration Index (hours)	25%	7.00	6.30	6.00
		Tx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$951M	25%	+/-6%	+/-4%	+/-1%
		Dx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$668M	25%	-5%/+4%	-3%/+2%	+/-1%
Net Income	30%	Net Income to Common Shareholders	\$M	100%	Redacted		
Productivity	10%	Productivity Savings in \$M	\$M	100%	164.10	193.00	222.00
Customer	25%	Residential and Small Business customer satisfaction	Customer Satisfaction	40%	71%	77%	80%
		Transmission Connected & Local Distribution Companies (LDCs)	Customer Satisfaction	40%	85%	90%	92%
		Commercial and Industrial	Customer Satisfaction	20%	73%	77%	80%

2020 Team Scorecard

	2020 Team Scorecard							
Strategic Priority	Corporate Measure	Component Weight	Definition	Measure	Sub Component Weight	Performance Levels		
						Threshold	Target	Exceeds
Be the Safest & Most Efficient Utility	Health and Safety *	20%	Serious Injuries and Fatalities	Incidents per 200,000 hours	50%	0.143	0.136	0.129
			Recordable Incidents	Incidents per 200,000 hours	50%	1.023	0.972	0.920
	Productivity	10%	Productivity Savings in \$M	\$M	100%	\$221.4	\$260.5	\$286.5
Build a Grid for the Future	Reliability	20%	Transmissions (Tx) Reliability – average length of unplanned interruptions to multi-circuit supplied delivery points (SAIDI)	Minutes per Delivery Point	25%	8.1	7.9	6.3
			Distribution (Dx) Reliability – average length of outages in hours that a customer experiences (SAIDI)	Hours per Customer	25%	7.0	6.1	5.9
	Work Program		Tx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$931M	25%	+ /-5%	+/- 2 %	+/- 1%
			Dx In Service Additions - Delivery Accuracy	Variance (%) to approved budget of \$664M	25%	+/- 3%	+/- 2%	+/- 1%
Innovate & Grow the Business	Net Income	30%	Net Income to Common Shareholders	\$M	100%	Redacted		
Advocate for Our Customer	Customer	20%	Residential and Small Business customer satisfaction	Customer Satisfaction	33.34%	81%	86%	89%
			Tx (including Dx connected LDCs) customer satisfaction	Customer Satisfaction	33.33%	82%	87%	90%
			Commercial and Industrial	Customer Satisfaction	33.33%	74%	79%	82%

* If the company has a fatality, the attained Safety measure will be reduced to 0% based on the findings of the System Investigation

A - SCHOOL ENERGY COALITION INTERROGATORY - 005

Reference:

No reference provided

Interrogatory:

Please provide a copy of all third-party benchmarking analyses, studies, reports, and/or similar documents, undertaken for, or that include Hydro One, since 2017, that are not already included in this application or on the record in EB-2019-0082, regarding any aspect that directly or indirectly relates to a material aspect of Hydro One's business.

Response:

The BGIS Facilities Management Benchmarking Study performed by Information Services Group Inc. (ISG) in October 2020 is provided in Attachment 1.

Please see Interrogatory E-Staff-206, part c) for the Hydro One JSOC Financial Analysis prepared by ADGA Group Consultants Inc.

Please see Interrogatory E-Staff-248, part b) for Hydro One's response regarding the benchmarking review of Inergi fees for the supply chain services scope of work by ISG.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-005
Page 2 of 2

1

This page has been left blank intentionally.



Hydro One – BGIS Facilities Management Benchmarking Study

Prepared for Hydro One and BGIS
By ISG
26 October 2020

imagine your future®

Privileged and Confidential to Hydro One and BGIS.

Proprietary and Confidential to Information Systems Group Inc. © 2020 Information Systems Group Inc. No part of this document may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval devices or systems, without prior written permission from Information Services Group, Inc.

About ISG

ISG is the Only Independent, Publicly Traded Advisory Firm in the Industry.

World's Most Extensive Database of price, cost, and operational metrics

ISG consultants are experienced in IT, application development and support, and BPO in benchmarking outsourced agreements. We have studied some of the world's largest and most complex outsourcing agreements. ISG advises on over 25% of the Sourcing Markets Annual Total Contract Value Awarded.

Two-Thirds of Advised Transactions

ISG is responsible for 70% of all advisory led transactions:

- ✓ This means that service providers and systems integrators sit across the table from ISG twice as often as they do from everyone else combined
- ✓ Far deeper knowledge of service providers' capabilities and contracting practices
- ✓ Better able to facilitate deep buyer-seller connections that lead to successful relationships

Table of Contents

Table of Contents

- ☐ Report Overview
- ☐ Objectives and Scope
- ☐ Summary of Findings
- ☐ Management Fee
- ☐ Rate Card for Self-performed Work
- ☐ Pass Through Expenses
- ☐ Service Levels
- ☐ ISG Approach and Method

Benchmark Report

Benchmark Report



About this Report



The primary objective of this benchmarking report is to communicate the results of ISG's analysis and findings that are based on the information and data reported over the course of this engagement.

Report Overview



imagine your future

Privileged & Confidential to Hydro One and Inergy
Page 6 of 30

Project Timeline

The study took place over an eight-week period in September and October 2020. Both Hydro One and BGIS personnel participated.

Project Milestone	Completion Date
Kick-off meeting held	Sept 9
Data collection completed	Sept 25
Data analysis and benchmark complete	Oct 16
Draft findings shared	Oct 19
Final report	Oct 30

Objectives and Scope

Project Objectives

Hydro One requested ISG to perform a benchmark of the current BGIS Facilities Management contract, as provided for in the agreement.

- ❑ Hydro One is exercising its option to conduct a benchmarking effort associated with the Facilities Management scope being delivered by BGIS.
- ❑ Hydro One has retained ISG as an independent third party to undertake a review BGIS' Fees for Facilities Management Services in the fourth calendar quarter of 2020. The "Contract Year" commencing January 1, 2019, through to December 31, 2019, will be used for the review of BGIS' Fees and Pass-Through Expenses.
- ❑ Pursuant to the Article 16, Section 16.1 of the Master Services Agreement between Hydro One and BGIS, Hydro One has the right to have BGIS' Charges for the Services under the Facilities Management Statement of Work reviewed by an independent third party. ISG was selected to conduct this review.

Overall Project Scope

The Scope of the Services includes the following BGIS charges for services performed during the calendar year 2019:

- ☐ Management Fee and Facilities Management Employee Cost
- ☐ Rate cards for services
- ☐ Pass through expenses

Excluded from this benchmark were new construction projects and major capital projects

Summary of Findings

Summary of Benchmark Findings

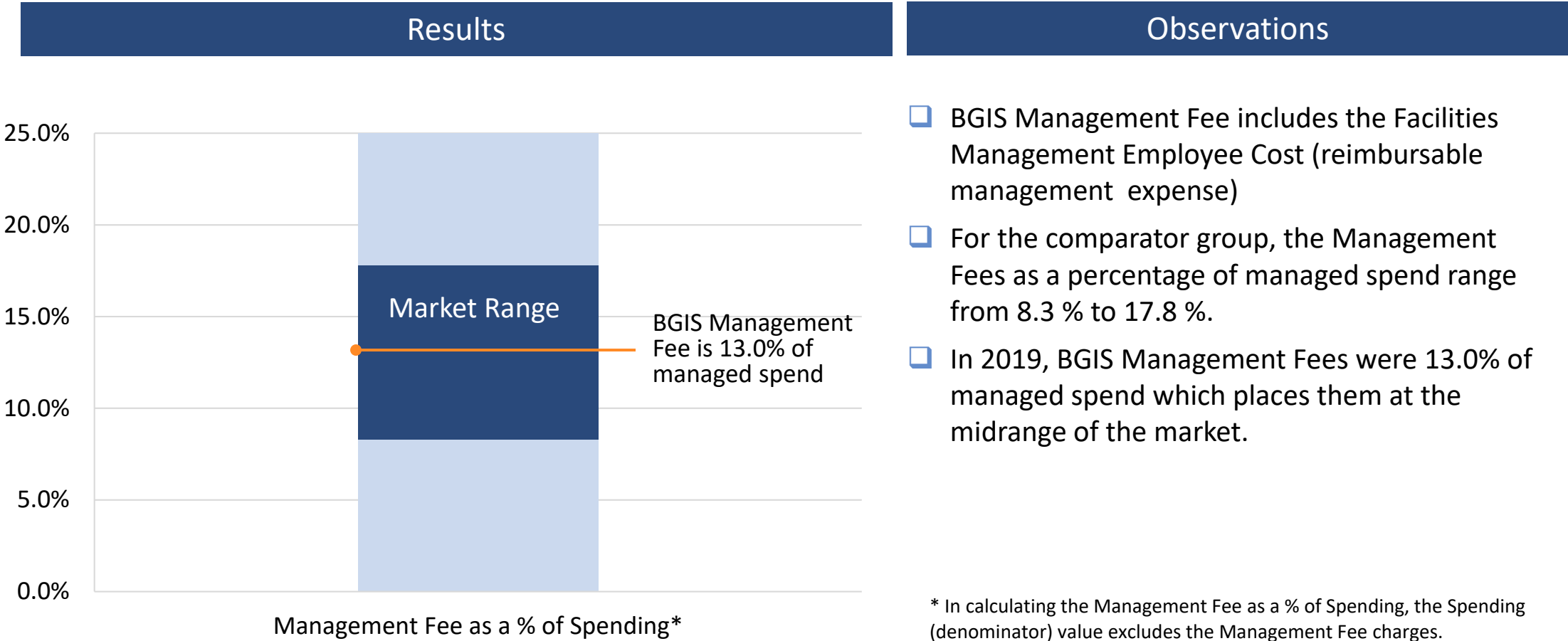
In general, the BGIS contract continues to provide good value to Hydro One. The following observations were made during the study.

- ☐ The Management Fee expressed as a percentage of spend under management is at the midpoint of the market range for similar agreements.
- ☐ The rate card for project management is similar to the rate cards for other providers.
- ☐ A study of the expenses in running the Markham office compared to the published IFMA benchmark show that the facility is being run efficiently at expenses slightly lower than for other Utilities industry sites.
- ☐ The procurement processes at BGIS are well documented and transparent. The process uses MERX – a publicly available tool – for bid management. The BGIS process is designed to ensure that best value providers are selected.
- ☐ The service levels are comparable to the service levels in other FM contracts.

Management Fee

Management Fee Comparison

ISG performed a comparison of the Management Fee as a percentage of the annual managed spend. The results of this comparison are provided below:



Rate Card for Self-performed Work

Rate Card Comparison

ISG performed a comparison of BGIS's Rate Card and compared it to the Market. The results of this comparison are provided below:

Results			Observations	
Mark-to-Market® Ranges			<ul style="list-style-type: none">Many BGIS roles on the rate card did not have directly comparable roles in other contracts. The area of commonality was restricted to Project Management.BGIS Rate Card rates for comparable roles were similar to those of the comparators.	
Rate Card	BGIS	Market Range		
Senior Project Manager	████	██████████		
Project Manager	████	██████████		
Project Coordinator/Superintendent	████	████		

Pass through Expenses

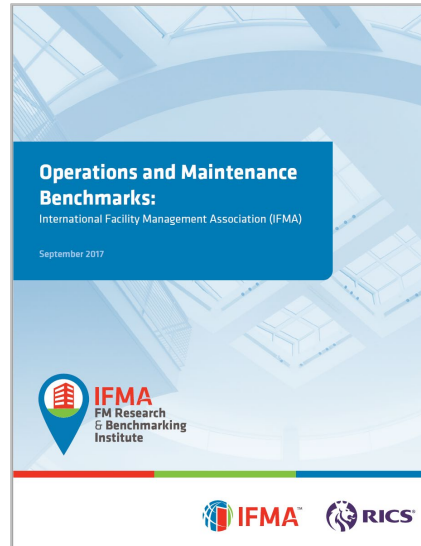
The Markham Office on Clegg Road

The Markham office was chosen for the benchmark review as it is the largest office managed by BGIS for Hydro One and is most directly comparable to the IFMA benchmark.



The Markham office has an area of 105,565 square feet and is used for mixed office and call centre space.

For the purposes of the benchmark, the RSF was assumed at 95% of the gross building area or 100,567 rsf.



The International Facility Management Association (IFMA) publishes a benchmark study of practices and costs for the US and Canada which has become the most widely accepted benchmark for Facilities Management.

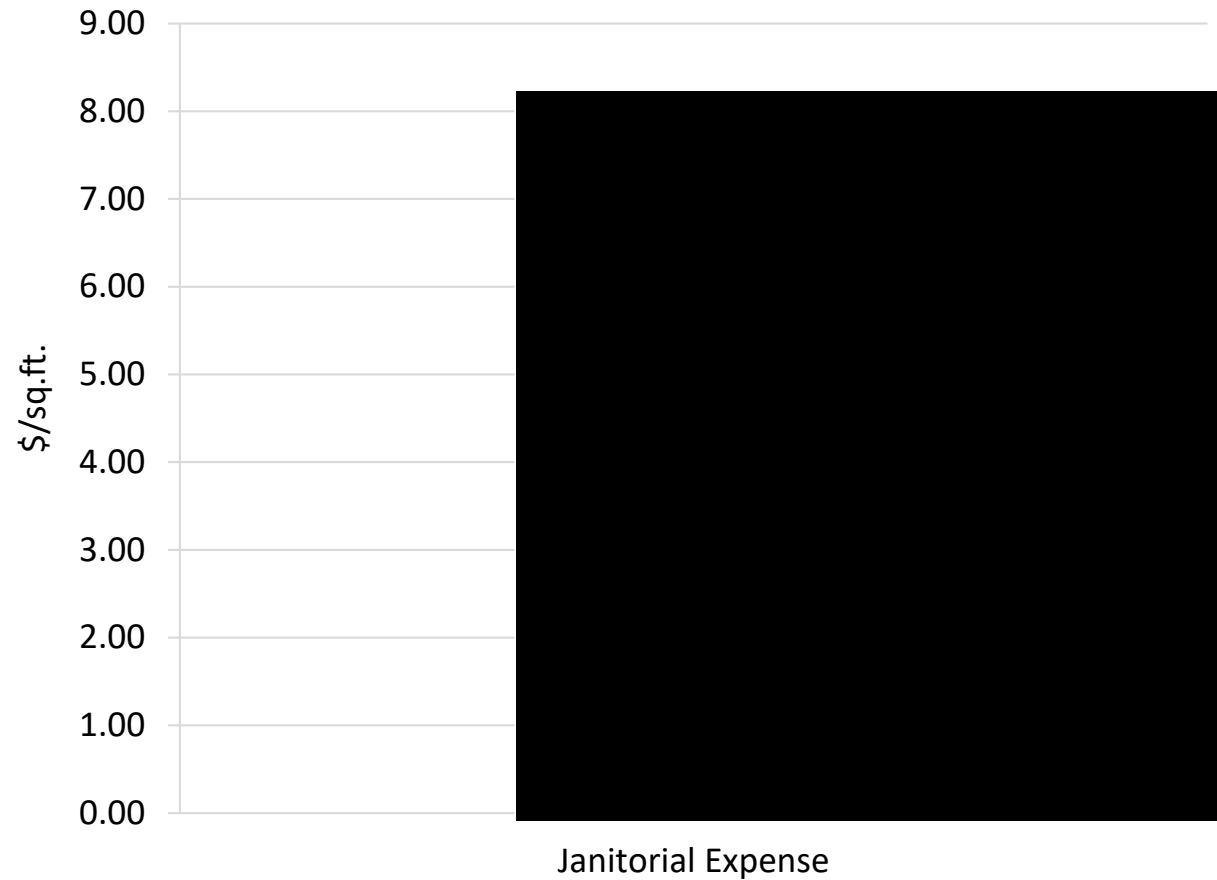
Respondents were asked to provide information on the facilities they manage for a 12-month time period. Approximately 2,193 surveys were returned during a four-month time period representing more than 98,000 buildings.

The IFMA Benchmark contains values reported by various industries. For this study, the values reported by Utility companies were used.

This benchmark was used to evaluate current spending at the Markham office.

Pass through Expense Findings – Janitorial

Janitorial Expenses at the Markham office on Clegg road were compared to expenses for similar buildings reported by IFMA.



- ❑ Expenses in 2019 CAD are \$ [REDACTED]/rsf
- ❑ Janitorial expenses at the Markham office are at about the 20th percentile of expenses reported by IFMA for buildings of similar size.
- ❑ In 2019, Hydro One and BGIS collaborated on a cost reduction project which included some revising some schedules for periodic work.
- ❑ BGIS leverages its scale across multiple clients to achieve best available janitorial rates for services.

Pass through Expense Findings – Maintenance Expense

Maintenance Expenses at the Markham office on Clegg road were compared to expenses for similar buildings reported by IFMA.

	External Building	Internal Systems	Roads and Grounds	Utility/Central Services	Health, Safety and Environment
2019 Actual spend					
\$/RSF					
IFMA benchmark (adjusted)					
Utilities industry	0.35	2.00	0.57	1.00	0.07

- ❑ In all categories, the current expenses at the Markham office are consistent with building maintenance expenses reported by other Utility companies.
- ❑ IFMA offers benchmark data arranged by industry. For this study, the data for the Utilities industry and for the Mixed Use Office facility type were used.
- ❑ BGIS expenses for internal and external maintenance are lower than the IFMA benchmark for both the Utilities industry and for Mixed Use buildings across all industries. This lower cost is driven in part by BGIS' use of multi-skilled technicians enabling the bundling of work orders, and also by BGIS' ability to leverage the scale of their entire client base in negotiating key supplier contracts.
- ❑ Roads and ground costs are similar to other sites in the Utilities industry.
- ❑ The very low value for Utility/Central services is due to the low complexity of the building and the absence of substantial utility equipment on site.
- ❑ The low spending for Health, Safety and the Environment (HSE) is due to the cost of the cost of HSE facilities work orders being attributed to general building maintenance (i.e repair of stair railings is attributed to building repairs rather than to HSE).

Procurement of Pass through Expense Items

The procurement process of BGIS was reviewed, and a 2019 procurement for Janitorial Services was examined in detail. Hydro One provided examples of areas of concern and these were also discussed.

- ☐ The process for tendering ongoing supply was reviewed. BGIS has a robust and well documented procurement process which uses MERX, a public tendering software.
- ☐ Hydro One business volume is aggregated with other BGIS clients through a process of simultaneous release of multiple RFP's each specific to a client and notice to vendors that the bid responses will be evaluated in the aggregate. This results in lower unit costs for each of the participating clients.
- ☐ For minor facilities maintenance capital projects, BGIS relies on a few general contractors. Although these general contractors do obtain multiple bids for larger projects and can demonstrate fiscal responsibility, the process for selecting the general contractors is not clear.

Service Levels

Service Level Findings

Current Service Levels and Reporting of Service Levels were reviewed.

- ☐ The current service levels are consistent with service levels used in other contracts for the management of corporate real estate assets.
- ☐ ISG noted that the Service Levels have not been reviewed since the Effective Date, and there would be benefit to both parties to engage in a review and revision to correct or remove current issues.
- ☐ The customer satisfaction questionnaire was revised at some point without making corresponding changes to the service level thresholds. This measure would benefit from being re-baselined during a period that both parties agree represents an acceptable level of service.

ISG Approach and Method

ISG Approach

ISG analyzed the performance of the current BGIS contract for the management of existing performance relative to market standards by:

- ☐ Evaluating the Management Fee appropriateness by comparing to market benchmarks against contracts for which ISG was the advisor.
- ☐ Evaluating Pass-through Expenses using two approaches;
 - A review of recent tendering activities of BGIS to determine whether BGIS is performing the contracted services are at current market rates;
 - A review of the Operating Expenses at the Markham office on Clegg Road against the published North American IFMA benchmark.
- ☐ Evaluating the BGIS Rate Card for self-performed services by comparing to the rates to market rates on contracts for which ISG was the advisor.

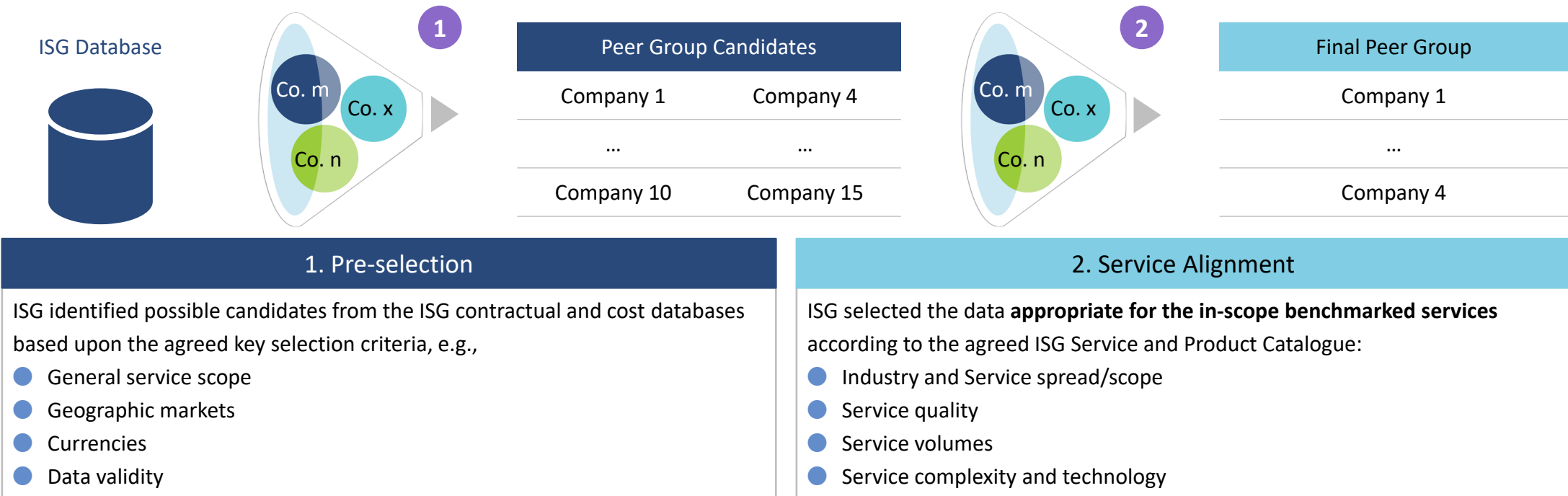
ISG's Benchmarking Peer Groups

ISG's approach for selecting appropriate comparators withstands regulatory scrutiny.

Key selection criteria will be agreed with all parties at the start of the process.

ISG then selects those reference group members that **best fit** to the services.

- ISG provides and aligns with client on a Peer Group.
- Peer Group members consist of with similar services performed.
- Each group consists of at least 5 comparable businesses with similar services performed in Canada.
- Data shown represents the mean performance of the group.



Facilities Management Services Comparators

The companies and contracts that were used as comparators for the Hydro One/BGIS price benchmark are outlined below.

The comparators used to perform the benchmark were comprised of:

- ☐ Canadian public companies, some of whom also had US operations.
- ☐ One of the contracts was a Canadian energy company. The balance were other industries.
- ☐ The smallest comparator had 127 sites, the largest had 891 sites
- ☐ The services provided were similar (janitorial, maintenance, minor maintenance capital, receptionist / admin)
- ☐ All contracts used a similar structure with management fee and pass-through of expenses.

Adjustments Applied

Listed below are adjustments that ISG applied/considered to the comparator/market costs to normalize pricing.

❑ **For the benchmark study of the Management Fee and Rate Cards, the following adjustments were used:**

- The comparator contracts were all expressed in CAD. Therefore, no currency conversions were required.
- Inflation adjustments based on the CPI index for Canada; all items excluding energy were applied to those comparator costs prior to 2019.
- The impact of unionization requirements is immaterial and not applicable for this benchmark comparison.

❑ **For the Markham Office study, the following adjustments were used:**

- Values used in adjusting amounts for inflation were taken from [Stats Canada](#) Consumer Price index, annual average, not seasonally adjusted using the line for “All-items excluding energy”.
- Conversion from CAD to USD was done using the IFMA regional adjustments table at the rate of \$3.81 USD ~ \$4.75 CAD.
- Conversion of gross building area to RSF (rentable square feet) assumed a load factor of 5% for utility space.

Report Sign-Off

Report Sign Off Agreement:

Signed in Toronto, Ontario, Canada on October 13, 2020.

Agreement:

Hydro One

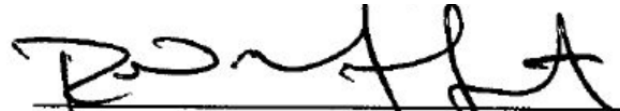
Agreed by:



John Boldt

BGIS

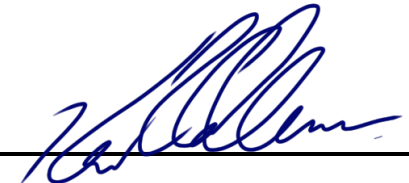
Agreed by:



Richard MacIntosh

ISG

Agreed by:



Kevin Coleman



ISG (Information Services Group) (Nasdaq: III) is a leading global technology research and advisory firm. A trusted business partner to more than 700 clients, including more than 75 of the top 100 enterprises in the world, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis. Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,300 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry’s most comprehensive marketplace data.

A - SCHOOL ENERGY COALITION INTERROGATORY - 006

Reference:

No reference provided

Interrogatory:

Please provide summaries of all internal audit reports conducted since 2017, related to any aspect that directly or indirectly relates to Hydro One's business, their findings, recommendations, and the status of any actions that have or are to be taken.

Response:

The summaries provided herein are from the internal audit reports provided to the Audit Committee of the Board of Directors.

Please see Attachment 1 for the summary of audit reports provided in Hydro One's previous transmission application (EB-2019-0082) for the 2017 to 2019 period.

The summary of audit reports applicable to Hydro One Distribution not included in Attachment 1 for the period 2017 to 2019, and audit reports for Hydro One Distribution and Transmission for the period 2019 to 2021 have been included herein.

Audits - Hydro One Distribution for the period 2017 to 2019.

Report Code	Audit Name	Conclusion	Summary of Observations and Recommendations	Management Action Plans	Status	Witness
2017-08	SF6 Gas Management	The processes and controls to satisfy regulatory requirements for accurate reporting of the SF6 emissions need significant improvement. The processes and controls to minimize SF6 emissions need improvement.	<ul style="list-style-type: none"> - Re-assess the feasibility of using one of the two mandated formats and methodologies specified by O. Reg. 143/16 to report SF6 emissions. - Develop a plan to mitigate the reporting risks or implement actions to address the control gaps to satisfy reporting requirements. - Clarify the management framework relating to the strategy, processes and documentation to manage and report SF6 emissions. 	Management initiated immediate corrective action.	COMPLETE	JABLONSKY Donna
2017-11	Distribution System Force Majeure Event Assessment	Some control improvements are needed for reporting of distribution system reliability results and Force Majeure events.	<ul style="list-style-type: none"> • Update accountabilities for distribution system reliability measures (incl. Force Majeure major events) in the documents. • Update the Force Majeure Days Determination Guideline with more prescriptive assessment criteria that is aligned with OEB and CEA terminology. • Implement controls to ensure that the outcome of the event assessment is documented and matches the reported outcome in the scorecard. • Establish a process owner to lead the development of a process for the 	Management will action the recommendations	COMPLETE	JESUS Bruno

Witness: As Specified Herein

			reporting Major Event information to the Ontario Energy Board as per its Electricity Reporting & Record Keeping Requirements instruction issued on May 3, 2016.			
2017-13	Power Quality Management	Improvements are needed to ensure adequate controls are in place for effective power quality management.	<ul style="list-style-type: none"> - Clarify accountabilities and document a response process with timelines on power quality investigations for large distribution customers - Align the Distribution Power Quality and Reliability Policy with the process documented in NOD's Customer & Operating Support Process Document and Provincial Lines' Power Quality Work Instructions - Establish a centralized tracking and reporting mechanism for power quality related incidents reported by large distribution customers 	Management will action the recommendations	COMPLETE	GILL Spencer
2017-16	Meter-to-Bill: Estimating and Billing	Shared accountabilities with other support groups require clarity.	<ul style="list-style-type: none"> - Work with Enterprise IT and Security to ensure the sensitive transactions and data within the billing process are made available to only those who require the functionality. - Develop a formalized operating level agreement with Advanced Metering Infrastructure Network Services, Provincial Lines and Customer Service Operations that defines purpose, scope, roles and responsibilities, performance 	Management will action the recommendations	COMPLETE	GILL Spencer, MARCOTTE Kevin

			management and cost management procedures			
2017-27	Move to Mobile Post Implementation Review	Project management controls were generally effective to mitigate the risks associated with the integration of the M2M solution. Controls over the benefit realization reporting process, process adoption and management reporting need improvement.	<ul style="list-style-type: none"> - Augment the benefits realization calculation to include a number of contributing factors which affect the integrity of the benefits calculation being reported to Senior Management. - Implement process adoption metrics and management reporting to ensure business processes are being followed 	Management will action the recommendations	COMPLETE	NG CK
2017-31	Polychlorinated Biphenyls Management (PCB Management)	Review of the asset records and PCB test results indicates that the Company is making progress across various LoBs in obtaining PCB sample test data from our in-service assets as summarized in Table 1.	<ul style="list-style-type: none"> • Distribution Stations, Transmission Stations, and Distribution Lines have formal and effective processes to monitor accomplishment of PCB inspections, testing, retrofills and equipment replacement at the individual work program accomplishment level. In general, the Station Service and Distribution Lines field staff are able to achieve the PCB inspection, testing and retrofill work targets as set out by the Planning Division. <p>Some challenges include:</p> <ul style="list-style-type: none"> • Identifying pre-1985 equipment; • Scarcity of funds for the PCB sampling and replacement programs; and • Resource and outage constraints for 	Remedial actions have been implemented to ensure the 2025 compliance obligation is achieved.	COMPLETE	NG CK, JESUS Bruno

			effective implementation of the work programs.			
2017-40	Remote Disconnect Reconnect - Post Implementation Review	The RDR project is in a pilot project state. Although the technology is reliable, the supporting RDR process controls need improvement.	<ul style="list-style-type: none"> • The RDR meter installation process has gaps with respect to monitoring and oversight controls. • The smart meter network is waiting for software vulnerability patches from the vendor. 	Management is actioning the recommendations including by redesigning the Credit and Collections' policies to reduce overdue receivables and simultaneously reduce disconnections for non-payment. Remote disconnection/reconnection improves safety for our field crews, reduces cost by eliminating truck rolls and allows us to quickly reconnect customers who have paid their bills.	COMPLETE	HOLDER Godfrey
2018-05	Distribution Station Design Standards	Controls need improvement	<ul style="list-style-type: none"> - Establish a consistent mechanism to evaluate design alternatives against key design criteria and stakeholder needs. - Establish a mechanism to track, monitor and communicate the needs of design standards based on new functional requirements from Asset Management 	Management will establish and enforce a consistent approach and criteria to document, evaluate and communicate design alternatives to determine the best design option aligned with corporate values and priorities. - We will develop a mechanism to track new functional requirements to facilitate design standards development, and to ensure that Engineering	COMPLETE	SPENCER Andrew

				is involved in the development process.		
2018-15	Review of Sustainment of Underground-Submarine System	The processes and controls related to the sustainment of the submarine system need improvement.	<ul style="list-style-type: none"> - The replacement program does not take into account all known damaged submarine cable assets. - The inspection maintenance cycle does not take into account the full population of submarine cable assets. 	Management has established plans to review all decommissioned functional locations to ensure replacement of all damaged submarine cables.	COMPLETE	FALTAOUS Peter
2019-04	Customer Call Centre - Timesheet Process Review	The CCC Timesheet Process needs improvement	Recommendations, both short term and longer term, have been developed in conjunction with the Customer Service Operations (CSO) and Human Resources (HR) to align CCC payroll with Hydro One's centralized process, correct payroll errors (which are immaterial in nature), and address identified issues.	Management is addressing the identified issues, and action plans are currently underway to strengthen and improve the CCC Timesheet processes.	COMPLETE	GILL Spencer
2019-07	Outage Communication to Customers	The design and synchronization of customer communications systems, controls over the validity of ETR information inputs, and the timeliness of information updates to the customer need improvement.	<ul style="list-style-type: none"> • ETR information may be communicated inaccurately during storms • Outage information is not consistent across customer communication channels • ETR information lacks data change management controls • The methodology for calculating Reported ETR accuracy requires enhancement 	<ul style="list-style-type: none"> • Management has committed to clarify and communicate the ETR storm accountabilities and mutually agreed upon ETR performance targets to improve the ETR accuracy • Management has committed to reinforce existing guidelines, utilize automation and establish the appropriate system logic controls for ETR changes to improve the accuracy of ETR communications and reporting 	COMPLETE	HOLDER Godfrey

Hydro One Distribution and Transmission for the period 2019 to 2021

Report Code	Audit Name	Conclusion	Summary of Observations and Recommendations	Management Action Plans	Status	Witness
2019-12	MTO Driver Certification Program Compliance Review (2019)	Compliance observed with 44 of 45 MTO DCP audit protocol requirements.	The audit identified instances of inaccurate marking of written tests for driver license upgrades and renewals. None these marking variances impacted overall test results.	Management has taken corrective actions to immediately review and amend written test marking quality assurance and pursue a long-term solution to leverage electronic testing and marking to address this repeat infraction.	COMPLETE	BERARDI Rob
2019-13	Distribution Lines Work Program Management	While key processes and controls are generally effective. Minor improvements are needed to ensure consistent cost and unit accomplishment forecasting.	Inconsistent approaches were applied for monthly cost and unit accomplishment forecasts.	Management has developed action plans to enhance work program forecasts and establish a variance approval process.	COMPLETE	CK NG
2019-14	Casual Trades Board and Travel Allowances	The B&T allowance process is highly manual and cumbersome and needs improvement to ensure appropriate governance, efficient administration and effective oversight. In the absence of effective controls, enhanced processes and greater use of technology, analytics and automation, there is an increased risk of inaccurate B&T	- Lack of management verification procedures – Periodic audits will be introduced to validate eligibility and policy compliance, and the enhanced functionality provided by the HR-Pay Transformation Project and Concur will improve controls.	The successful and effective implementation of some management actions will need the support of Labour Relations and supporting labour groups and are dependent upon the enhanced tools to be delivered by the HR-Pay Transformation Project and Concur. Internal Audit will support management on these initiatives and track the action plans until completion.	IN PROGRESS	CHHELAVDA Samir, LILA Sabrin

Witness: As Specified Herein

		allowance payments and process inefficiencies.				
2019-16	Temporary Employee and Contractor Management	Inconsistent approach to the contractor management lifecycle, inclusive of workforce management strategy, background security screening aligned with the corporate standard, and contractor training and oversight.	<ul style="list-style-type: none"> • Lack of directives to determine the optimal use of contractor and temporary employees • Background checks and security screening is not performed for contractors • Lack of clear direction on mandatory training requirements for contractors 	<ul style="list-style-type: none"> – A workforce strategy will be developed to provide clear guidance on the suggested use of contingent workforce to meet business objectives. – Supply Chain has committed to enabling Security with the tools to improve background security screening for contractors. 	IN PROGRESS	BERARDI Robert, LILA Sabrin
2019-18	PCB Management Follow-up Review	The Company has made substantial progress since the 2017 PCB Management Audit	<ul style="list-style-type: none"> – The back-loaded plan for retrofilling of Transmission Stations PCB assets (i.e., bushings) requires accelerated efforts – Sampling and Chain of Custody issues have been identified through Line of Business reviews and third-party laboratory quality assurance reports. – Executive-level oversight, monitoring and reporting over the remaining PCB phase-out program could be enhanced 	<ul style="list-style-type: none"> – Management will monitor the overall plan execution on a quarterly basis and adjust the Business Plan annually to ensure achievement of the end-of-use compliance deadline. – Management has initiated action plans to understand and improve these issues through continuous improvements to the PCB sampling program and enhanced training. 	COMPLETE	JABLONSKY Donna
2019-20	Corporate Scorecard Process Review 2019	Processes and controls over the approval of corporate goals are satisfactory.	No observations raised, however, timely completion of action plans from the National Instrument (NI) 52-109 internal control certification program will further strengthen controls for:	1. Management is enhancing prescriptive guidance and documentation requirements for ISAs and clarifying accountabilities for review and	COMPLETE	LILA Sabrin

			1. In-Service Additions (ISAs) 2. Critical Spreadsheets	oversight. 2. Finance has an initiative underway to enhance controls over critical financial reporting spreadsheets as part of the Financial Control Assurance program.		
2019-22	Non-Financial Disclosure Review	A non-financial reporting strategy has not been formalized.	- standardization of processes related to the identification of non-financial disclosures is required	The Disclosure Committee will oversee the development of a non-financial disclosure strategy	COMPLETE	CHHELAVDA Samir
2019-24	Vendor Master Data Change Control	Key controls over ensuring the accuracy and authorization of vendor master data changes are generally effective. Minor improvements are needed to increase security and ensure requests for vendor data changes are validated	<ul style="list-style-type: none"> Enhancing the verification process to confirm banking vendor master data change requests Improving the frequency and fulsomeness of the review of vendor master data access entitlements 	<ul style="list-style-type: none"> Management to implement a confirmation process to independently validate vendor master data change requests 	COMPLETE	BERARDI Robert
2019-25	Helicopter Operations - Remediation Activity Review	<p>The following formal internal and external reviews have since been completed:</p> <p>Internal Reviews</p> <p>1) Helicopter Services Program Review Final Report (July 13, 2018) - Synergy Aviation Services (external aviation consultant)</p> <p>2) HMRPH Investigation-Transmission Lines Construction, Helicopter</p>	<p>No non-compliance and/or actions to comply were issued against the Company by the Transportation Safety Board or Ministry of Labour.</p> <p>The Company voluntarily initiated remedial actions to improve its helicopter operations.</p>	<ul style="list-style-type: none"> Determination of the operational strategy and business service model for the Helicopter Services operation Prioritization of remedial actions Continual reinforcement of key safety messages within Helicopter Services and the Lines of Business using their services. 	N/A	BERARDI Rob

Witness: As Specified Herein

		Incident Fatalities (EHSM #10003150, August 30, 2018) – Hydro One External Review 3) Aviation Investigation Report) - Transportation Safety Board of Canada.				
2019-26	CEA Sustainable Electricity Company TM Brand - Verification Audit	<p>The Company generally satisfies the CEA's Sustainable Electricity Company™ brand verification audit requirements.</p> <p>The Company is encouraged to formalize its sustainability strategy and tactical program, enhance internal awareness, further integrate sustainability into its operations.</p>	The Company satisfied 67 out of the 73 criteria (92%) established by the CEA for verifying adherence to the Sustainable Electricity Company™ brand designation requirements.	No Management Action Plans	No Management Action Plans	JESUS Bruno
2019-28	Capital Project Review	<p>Documentation must be updated to ensure it is aligned with current practices.</p> <p>The processes to ensure clear ownership and updates of the PDM processes, integrate continuous improvements, provide ongoing training, and improve specific aspects of Risk Management, Cost Management, and Schedule Management processes need minor improvement.</p>	<ul style="list-style-type: none"> • The Project Delivery Model (PDM) is not regularly updated; and • Key processes, namely Risk, Schedule, and Cost Management as defined in PDM are not consistently adhered to 	<ol style="list-style-type: none"> 1. Management has committed to regularly update the PDM, and establish clear process ownership, stakeholder training, and effective communication across multiple Lines of Business; and 2. For each process, Management has committed to improve monitoring to ensure that 	COMPLETE	SPENCER Andrew

				controls are followed, revise the process considering project categorization (based on Project Tier) and project phase, or remove non-essential process steps and controls while assessing the risk of these changes.		
2019-31	Preventive Maintenance Optimization Review for Transmission Stations	Hydro One is transitioning to a Condition Based Maintenance (CBM) strategy. Existing maintenance strategy documentation needs to be updated to reflect the transition to CBM.	Existing maintenance strategy documentation needs to be updated to reflect the transition to CBM and the related processes and controls need improvement	Management is developing: <ul style="list-style-type: none"> • decision guidelines and instructions to document CBM decisions; and • reporting to monitor completeness of asset condition information, completion of Preventive Maintenance Work Orders and Defect Reports and follow-up on status with the Service Provider. 	COMPLETE	JABLONSKY Donna
2019-32	Regulatory Account Reconciliation Review	Controls to support the presentation of regulatory assets and liabilities within the consolidated financial statements of Hydro One Limited are generally effective. Minor improvements to formalize the key handoffs of information needed.	Enhance the formalization of the processes for communicating key information that supports regulatory accounting	Management will: <ul style="list-style-type: none"> • Formalize the review and analysis of all OEB notifications that impact financial reporting • Define critical information resulting from the rate application process to be 	COMPLETE	CHHELAVDA Samir

				formally provided or confirmed by Regulatory <ul style="list-style-type: none"> Identify key information provided by other lines of business that is utilized to support regulatory accounting and define a requirement for appropriate review and approval prior to a timely handoffs of this information to the Financial Reporting group 		
2020-02	SF6 Gas Management - Remedial Activities Review	As at January 10th, 2020, based on the evidence provided, all 15 remedial actions have been completed by Management. A consolidated summary of the findings, recommendations, Management's remedial actions, and our assessment of completion is provided in Table 1	All 15 remedial actions have been completed by Management.	No Management Action Plans	No Management Action Plans	JABLONSKY Donna
2020-05	2017 Long-Term Incentive Plan – Performance Share Unit Performance Multiplier	For both versions of the 2017 PSU Performance Multiplier (including/excluding the OEB Pension Decision) the reported Average EPS over the three-year PSU Grant period and the	No recommendations arising from this review	No Management Action Plans	No Management Action Plans	LILA Sabrin

		resulting final 2017 PSU Performance Multiplier are appropriately supported and consistent with plan documentation and subsequent Board approved amendments.				
2020-06	2019 Corporate Scorecard Assurance Review	<p>For both versions of the 2019 Corporate Scorecard (including/excluding the OEB Pension Decision):</p> <ul style="list-style-type: none"> the reported 2019 corporate goals and associated performance levels (“Threshold”, “Target”, and “Exceeds”) and relative “Scorecard Weighting” agree to those approved by the Board; the reported achievement results (“actuals”) for each corporate goal agree to supporting documentation and are rounded in accordance with the same level of precision as the 2019 performance level targets (“Threshold”, “Target”, and “Exceeds”) approved by the Board; and the mathematical accuracy is correct throughout, including the calculation of each 2019 	No recommendations arising from this review	No Management Action Plans	No Management Action Plans	LILA Sabrin

		Corporate Scorecard goal's "achievement calculation", "STIP %" and overall "Consolidated STIP Achievement".				
2020-08	2019 In-Service Additions Assurance Review	Sampled ISAs met Management's determination of "used and useful" criteria as of the declared in service date, with some exceptions.	Minor improvement suggested to ensure a consistent and documented approach to support ISA declaration, particularly with respect to partial assets	No Management Action Plans	No Management Action Plans	CHHELAVDA Samir
2020-09	2019 Year-End Unrecorded Liabilities	No issues noted	No recommendations arising from this review	No Management Action Plans	No Management Action Plans	CHHELAVDA Samir
2020-12	Distribution - Field Design Estimating Process Review	The currently established field design and estimating process for customer connections needs improvement	<ul style="list-style-type: none"> • Greater consistency and transparency of designs and cost estimates for customer connections is needed through improvements to controls, guidelines and program structure. • Increased monitoring and oversight of estimates is required. 	<ol style="list-style-type: none"> 1. Management has committed to establish the appropriate governance for the design and estimating process to drive consistency of customer deliverables. 2. Management has committed to establish an oversight accountability to implement metrics/targets and periodic reviews to drive continuous improvements in estimate accuracy and customer deliverable timelines. 	IN PROGRESS	CK NG

2020-13	MTO Driver Certification Program Compliance Review (2020)	Management implemented effective corrective actions to address written test marking accuracy issues identified in the 2019 audit	All remedial actions stemming from the 2019 review have been satisfactorily addressed and Management has confirmed that there have been no errors in the marking of written tests since June 1, 2019.	No Management Action Plans	No Management Action Plans	BERARDI Robert
2020-14	2019 Sustainability Report - Assurance Review	Satisfactory evidential support, data validation, and quality assurance checks to ensure the integrity of the data being reported in the 2019 Sustainability Report and to mitigate potential disclosure risks.	In addition to providing the Sustainability Report to the Disclosure Committee for review and approval, the Sustainability team has implemented a number of internal controls and quality assurance checks to increase confidence in the 2019 Sustainability Report disclosure.	No Management Action Plans	No Management Action Plans	CHHELAVDA Samir
2020-15	Load Forecasting Review	The Load Forecasting group has consistently produced transmission and distribution system load forecasts and has defended the forecasts in support of rate applications for many years. The process depends on long-serving individuals with specialized subject matter knowledge and experience. Minor improvements are needed to the documentation of process governance, management of internal records and succession planning.	Comprehensive documentation is needed to ensure that the process is consistent, repeatable and not fully reliant on individual staff.	Management has agreed to identify and codify key knowledge, skills and experience needed and develop a detailed succession plan that will ensure continuity of the load forecasting function and reduce reliance on key individuals.	COMPLETE	BIJAN ALAGHEBAND and STEPHEN VETSIS

2020-18	A/R Provisioning	Process and controls in place are satisfactory to support the calculation of the allowance for doubtful accounts reported in Hydro One's consolidated Financial Statements as at Sept 30, 2020.	No recommendations arising from this review	No Management Action Plans	No Management Action Plans	CHHELAVDA Samir
2020-21	Metering Service Provider Follow-up	Hydro One Networks is currently providing wholesale metering services through collaborative and coordinated multi-LoB efforts. Processes and controls within each LoB need minor improvements to ensure quality deliverables as per the MSP Agreement.	<p>Process for the assessment and confirmation of sufficient and qualified personnel for anticipated MSP related workload within each LoB needs to be formalized.</p> <p>Consistency in the Quality Assurance (QA) process is needed to mitigate the risk of non-compliance with the Market Rules and the MSP Agreement.</p>	<p>Management has agreed to periodically assess and confirm the adequacy of qualified staff to perform MSP tasks within each supporting LoB based on anticipated workload.</p> <p>Management has agreed to review the quality assurance processes to ensure appropriate records of quality control activities performed for each deliverable are being maintained and segregation of duties among roles (i.e., separating performance and review) is established where appropriate.</p>	COMPLETE	PAISH David
2020-24	Review of Anti-Fraud Controls at Recently Acquired Local	The review concluded that key anti-fraud controls are designed and in place at the recently acquired LDCs and are satisfactory to	<p>Hydro One management should consider fraud risk for any future LDC acquisitions. Going forward, management should:</p> <p>- review fraud risk during the pre-close</p>	Management is in agreement with this recommendation and has developed appropriate action plans.	COMPLETE	CHHELAVDA Samir

	Distribution Companies	ensure fraud risk is adequately mitigated to an acceptable level.	process and validate that anti-fraud controls are in place; and -the business readiness checklist be updated to ensure this assessment has been completed.			
2021-01	2020 Corporate Scorecard Review	<p>We have reviewed the 2020 Corporate Scorecard provided to us on February 9, 2021 and confirm that:</p> <ul style="list-style-type: none"> · the reported achievement of each 2020 corporate goals, the associated performance levels (“Threshold”, “Target”, and “Exceeds”) and relative “Component Weight” agree to those approved by the Board; · the reported achievement results (“actuals”) for each corporate goal agree to supporting documentation and are rounded in accordance with the same level of precision as the 2020 performance level targets (“Threshold”, “Target”, and “Exceeds”) approved by the Board; and · the mathematical accuracy is correct throughout, including the calculation of each 2020 Corporate Scorecard goal’s 	No recommendations arising from this review.	No Management Action Plans	No Management Action Plans	LILA Sabrin

Witness: As Specified Herein

		<p>“achievement calculation”, “STIP %” and overall “Consolidated STIP Achievement”.</p> <p>Based on the procedures performed, we agree with the 2020 Corporate Scorecard as presented in Appendix A with a Consolidated STIP Achievement of 115.08%.</p>				
2021-02	2018 LTIP Grant Review	<p>The 2018 PSU Performance Multiplier, the reported Average EPS over the three-year PSU grant period and the resulting final 2018 PSU Performance Multiplier are appropriately supported and consistent with plan documentation and subsequent Board approved amendments.</p>	No recommendations arising from this review	No Management Action Plans	No Management Action Plans	LILA Sabrin
2021-03	COVID-19 Mid-Action Review - Follow-up Review	<p>Management is diligently executing upon the action plans and at this time:</p> <ul style="list-style-type: none"> • 8 of the 9 short-term recommendations were satisfactorily addressed; and • the EM&RC team is making steady progress on the longer-term recommendations, with 	<p>Key observations and management actions arising from this review are summarized as follows:</p> <ul style="list-style-type: none"> • In the short-term, periodic updates of the Corporate Pandemic Playbook are needed to assist the Emergency Operations Centre (EOC) Team and Lines of Business (LOBs) to effectively activate and appropriately respond to similar events in the future. 	<ul style="list-style-type: none"> • Management has committed to updating the Corporate Pandemic Playbook on a periodic basis. Changes will be communicated to relevant stakeholders and participants will be on-boarded accordingly. • Management has committed to establishing an Emergency 	IN PROGRESS	HOLDER Godfrey

		<p>estimated completion dates for all recommendations by 2024.</p> <p>Minor improvements are needed to address the final short-term recommendations (refer to Appendix A for details) and to provide appropriate oversight and support for the completion of longer-term actions.</p>	<ul style="list-style-type: none"> In the longer-term, Management oversight and monitoring of recommendations is needed to assist EM&RC and receive appropriate executive support and resourcing to complete longer-term recommendations. 	<p>Management & Business Continuity Steering Committee (EMBCSC) where progress on the longer-term recommendations will be presented and communicated on a periodic basis.</p> <p>In addition, opportunities for improvement, which would bolster the overall effectiveness of the Company's response to the pandemic and similar future events, were also identified and communicated to EM&RC Management.</p>		
2021-04	2020 In-Service Additions Assurance Review	While there was satisfactory evidence to support the balances for ISAs reviewed during this engagement; controls over the process need minor improvement.	Standardizing processes would improve evidence of compliance with the in-service criteria; demonstrate operational confirmation for the assets and reasonability of associated costs.	Management developed appropriate action plans.	IN PROGRESS	CHHELAVDA Samir
2021-05	Executive Compensation Disclosures Review - 2021 Management Information Circular	There was satisfactory evidential support to validate key in-scope executive compensation disclosures within the 2021 MIC. Disclosures reviewed were appropriately supported; consistently cross-referenced and in agreement with the prior year. Further, a	No recommendations arising from this review.	No Management Action Plans	No Management Action Plans	LILA Sabrin

		robust management process for the preparation and review of the 2021 MIC was observed.				
2021-06	COVID-19 Workplace Health and Safety Management Review	The Company quickly utilized its mature emergency management experience, systems and personnel to implement processes and controls to support the occupational health and safety of its employees and workplaces during COVID-19.	<p>Key success factors for the Company's pandemic response include:</p> <ul style="list-style-type: none"> • Early initiation (i.e., mid-January 2020) of the Pandemic Planning Committee, with in-house occupational health and safety subject matter expertise, began monitoring the situation and initiated advanced planning prior to the World Health Organization (WHO) declaring a global pandemic on March 11th, 2020 • Implementation of the Incident Management System (IMS) structure for activating the Emergency Operations Centre (EOC) which allowed for enhanced, centralized, informed, and timely decision-making, and facilitated cross-collaboration across Lines of Business and functional groups. "Protect employees" is a foundational principle used to guide all actions and decisions by the EOC. 	No Management Action Plans	No Management Action Plans	BERARDI Rob
2021-07	Distribution Vegetation Management - Optimal Cycle	The established Optimal Cycle Protocol (OCP) approach to the Distribution Vegetation	There are opportunities to enhance roles and reporting processes regarding the OCP strategy including key program metrics, and improve oversight of the	<ul style="list-style-type: none"> • Management will continue working to define and formalize roles between Planning and Forestry Services 	IN PROGRESS	FRENCH Teri

	Protocol (OCP) Effectiveness	Management program needs minor improvement	Tree-Caused Outage investigation process to analyze and validate outage data to drive continuous improvement of the program	<ul style="list-style-type: none"> Management has committed to document and validate calculations/assumptions on the reported reliability metrics for the OCP program and to share any reported discrepancies from the Tree-Caused Outage investigation process to drive continuous improvements to the corporate reliability metrics. 		
2021-08	Acquired LDCs - Data Integration (2021)	As at April 26, 2021, Management has established satisfactory processes and controls related to customer data conversion for the Peterborough and Orillia LDCs.	No recommendations arising from this review.	No Management Action Plans	No Management Action Plans	FALTAOUS Peter
2021-11	Pandemic Relief Fund	This review concluded that process and controls in place are satisfactory to support valid, accurate and complete application of credits to customer accounts that meet the criteria for relief through the Government of Ontario CEAP and/or Hydro One Pandemic Relief Program.	The review identified a number of positive practices, which enhanced the consistency and transparency of credits applied	No Management Action Plans	No Management Action Plans	#N/A

Witness: As Specified Herein

2021-12	Physical Security at Transmission Sites	<p>In compliance with NERC CIP-0141 requirements, Security Operations adheres to an established physical security threat risk assessment process for all critical transmission stations identified by System Planning and the Independent Electricity System Operator (IESO) to support grid reliability on the Bulk Electric System. Management continues to maintain and develop a robust physical security program and are in the process of developing a multi-year investment plan to drive necessary improvements. While there is a mature program in place, especially focused on critical transmission assets and facilities, some specific processes need minor improvement to further strengthen the overall effectiveness of the physical security program.</p>	<p>The key observations and management actions arising from this review are summarized as follows:</p> <p>Better alignment on the Physical Security Maturity Assessment with the Corporate Risk Profile/Tolerances and the Threat Risk Assessments is needed to ensure Management is able to perform a more accurate assessment of the maturity level of physical security and to prioritize and substantiate security investment needs to further mitigate residual risks.</p> <p>Lines of Business input and stakeholdering into the Physical Security Program requires more formal and periodic review to ensure that the physical security strategy and business initiatives continue to align and support emerging physical security risks and needs for the Company.</p> <p>Increased oversight on the progress of physical security upgrade projects at critical transmission sites should be improved to ensure physical security upgrade projects are in-serviced in a timely manner to minimize NERC compliance risk.</p>	<p>Security Operations will be working closely with Enterprise Risk Management to ensure a consistent alignment of risk tolerances to physical security and align the risk treatment plans identified from the risk assessment process within the physical security assessment model.</p> <p>Security Operations are in the process of engaging with the key Lines of Business stakeholders on a periodic basis to ensure continued alignment of the physical security program with emerging risks and business needs, and promote physical security awareness.</p> <p>Security Operations has committed to work closely with Project Delivery to ensure the physical security upgrades identified at 29 critical transmission sites are in-serviced in a timely manner to minimize the risk of being non-compliant with NERC requirements.</p>	IN PROGRESS	MARCOTTE Kevin
---------	---	--	---	---	-------------	----------------

2021-16	MTO Driver Certification Program Compliance Review (2021)	Previously implemented test marking quality assurance controls are not fully effective. Although no specific infractions were identified against the MTO DCP audit protocols, several issues related to program oversight, administration, and testing were observed.	Several deficiencies were observed in the maintenance of the Master File, driver files, timely updates to the MTO's online DCP System, and administration of written test were observed. All identified deficiencies were corrected prior to audit completion.	Management concurred with audit observations and took immediate action to withdraw from the MTO DCP. Management outsourced all DCP training, testing and licensing requirements to a MTO approved 3 rd party service provider.	COMPLETE	BERARDI Rob
2021-17	Corporate Sustainability Report - Assurance Review	There was satisfactory evidence to support the reporting integrity of the 12 key ESG indicators reviewed. Further, the maturity of processes and controls related to the preparation of the Sustainability Report continue to improve year over year. However, recommendations for minor improvements related to data collection, compilation and quality assurance review within reporting Lines of Business (LOBs) were identified which would promote the on-going quality, consistency and enhance the level of confidence for future reporting of key ESG	The Company has adequate governance and oversight to coordinate, compile and report on ESG indicators in a timely fashion for inclusion in the Sustainability Report. However, some non-material errors/omissions arising from weaknesses of the reviewed ESG disclosure controls were identified and appropriately remedied by Management in preparation of the 2020 Sustainability Report. Further strengthening of various elements of non-financial disclosure processes and internal controls is recommended to improve the accuracy, completeness and reporting of key ESG disclosures.	Recognizing the importance of enhancing the confidence of future ESG disclosures and Sustainability reporting, the Sustainability Team is actively engaged with the non-financial disclosure data governance project (being undertaken by the office of the Corporate Controller and the Disclosure Committee) and is committed to working with reporting LOBs to strengthen and document controls related to ESG indicator governance and LOB coordination; consistent calculation and compilation processes; formalized quality assurance and approvals; and	IN PROGRESS	JESUS Bruno, CHHELAVDA Samir

		(and other similar non-financial) disclosures.		overall reporting alignment with other corporate disclosures.		
2021-18	Productivity Savings	<p>The governance, process and control design of the Productivity Savings program are generally effective and continue to improve since the program's inception in 2016. However, the design of the existing controls over the monthly and semi-annual reviews of actual and forecast savings reported by the Lines of Business (LoBs) need minor improvement to strengthen the validation process and record keeping.</p>	<p>The Productivity Savings program is an integral part of Hydro One's corporate strategy, to identify sustainable internal efficiencies with the goal of offsetting inflation. Recommendations include,</p> <ul style="list-style-type: none"> - enhanced governance of the Productivity Savings program, including the review and approval of productivity initiatives identified by Lines of Business; - strengthening controls related to semi-annual reviews of reported savings; - consistent maintenance of records of independent review of Productivity Savings program reported results. 	<p>Management has developed and implemented this program with effectively designed governance, processes and controls consisting of:</p> <ul style="list-style-type: none"> - an experienced and cross-trained team within the Strategic Finance group to: - oversee the governance of the Productivity Savings program; and - review and approve productivity initiatives that have been identified by Lines of Business (LoBs) using an approved methodology along with appropriate baselines and assumptions. - detailed actual and forecast savings being reported by LoBs against established targets that are reviewed by the Strategic Finance team prior to results being communicated to the executive on a monthly basis. 	IN PROGRESS	JODOIN Joel

				Recognizing the importance of productivity savings being reported, Management has developed action plans to: <ul style="list-style-type: none">- further strengthen controls related to the monthly and semi-annual detailed reviews of LoB reported savings; and- ensure that records of independent review for all Productivity Savings program reported results are being consistently maintained.		
--	--	--	--	--	--	--

SEC INTERROGATORY #6

Reference:

Interrogatory:

Please provide summaries of all internal audit reports conducted since 2017, related to any aspect that directly or indirectly relates to Hydro One's transmission business, their findings, recommendations, and the status of any actions that are to be taken.

Response:

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
SF6 Gas Management (Bruno Jesus) Review and assess the processes and controls related to SF6 gas inventory and emissions management to minimize greenhouse gas impacts, and to assist in closing any gaps to ensure accurate regulatory reporting.	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Review and update the SAP Asset Registry to ensure all SF6 equipment in the transmission and distribution system, including MVGIS, gas carts, puffer packs and storage tanks (pigs), are accurately captured.	Station Services and Engineering to create a plan to update and cleanse SAP Asset Registry data relating to all SF6 equipment in the transmission and distribution system.	COMPLETE
	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Review and update the nameplate capacities for SF6 equipment in SAP and ensure that the values are populated accurately in the "Weight of SF6 (kg)" data field.	Engineering (accountability now transferred to Planning) and Station Services to update and reconcile the nameplate capacities for SF6 equipment in SAP.	COMPLETE
	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Develop Gas Compartment Diagrams in NODS for MVGIS switchgear currently installed in the field.	Engineering will develop detailed compartment drawings for MVGIS switchgear and publish in NODS. Grid operations will also be involved in this process.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-08	Some issues related to accurately tracking, estimating and reporting SF6 gas emissions at the equipment and corporate level to satisfy Ontario Regulation 143/16 – Quantification, Reporting and Verification of Greenhouse Gas Emission regulatory reporting requirements.	Re-assess the feasibility to accurately report the 2016 SF6 GHG emissions using the mandated format and methodologies to satisfy the O. Reg. 143/16 regulatory requirements.	<p>Direct Method vs. Mass Balance will be evaluated in calculating SF6 emissions and the most appropriate method will be identified, by stakeholdering with all applicable LoB Directors to satisfy the O. Reg. 143/16 regulatory requirements for accurate and timely reporting of SF6 GHG emissions.</p> <p>A process map will be developed documenting the reporting steps and LoB accountabilities for reporting SF6 GHG emissions.</p>	COMPLETE
	2017-08	Some issues related to accurately tracking, estimating and reporting SF6 gas emissions at the equipment and corporate level to satisfy Ontario Regulation 143/16 – Quantification, Reporting and Verification of Greenhouse Gas Emission regulatory reporting requirements.	Develop an action plan to mitigate reporting risks and/or implement actions to address control gaps to satisfy the regulatory reporting requirements.	<p>For current year and going forward, reports to external stakeholders and SF6/GHG related non-financial reporting (i.e., Corporate Social Responsibility and Carbon Disclosure Project) appropriate disclosure statements will be incorporated to address any estimation uncertainties or potential misrepresentations.</p> <p>For chosen SF6 GHG reporting methodology, Directors will</p>	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
				<p>identify required improvements to accurately estimate and report SF6 emissions in 2018 and assign accountability to the appropriate LoB Director.</p> <p>Environmental Services will assess the current process for identifying and tracking emerging environmental legislation and enhance the process to ensure comprehensive business impact analysis is conducted and appropriate compliance plans are developed and deployed.</p>	
	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Review and update the SAP Asset Registry to ensure all SF6 equipment in the transmission and distribution system, including MVGIS, gas carts, puffer packs and storage tanks (pigs), are accurately captured.	Environmental Services to co-ordinate sample data review to determine general data quality.	COMPLETE
	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Standardize the SF6 equipment templates to ensure the class characteristic to capture the nameplate capacity of the equipment is described as "Weight of SF6 (kg)" and Measuring Point - "Weight of SF6 Added" is included.	Transmission and Distribution Asset Management to ensure SAP equipment templates are updated to facilitate the upload equipment nameplate capacities and gas top-ups records. Enterprise Information Technology will be engaged in	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
				template creation.	
	2017-08	Some key aspects of the SAP Asset registry related to SF6 filled equipment are incomplete and/or inaccurate.	Enhance the change management process to ensure systematic and timely updating of the SAP Asset Registry when physical changes to location and equipment status are made.	Transmission and Distribution Asset Management, Engineering Services and Station Services to communicate to their respective teams the importance of and the expectation for timely and accurate updates provided to responsible parties to maintain the SAP Asset Registry.	COMPLETE
	2017-08	The direction provided in the SF6 governance framework requires clarification in order to effectively manage and report SF6 emissions.	Clarify the overall framework across the organization relating to the overall strategy, processes and related procedural documentation to effectively manage of SF6 emissions and accurately report SF6 emissions, giving consideration for the following: <ul style="list-style-type: none"> • Review, rationalize and streamline the overall governance framework and work procedures (i.e., ordering, handling, testing, storage, tracking and reporting) to enhance 	Environmental Services, working with LoB stakeholders, to: a) Review the existing SF6 related HODS documentation (including GHG and overall Climate Change governance), b) Develop overall document framework and hierarchy, and c) Streamline /update/revise related policies and work procedures. Note: Interim measures will be implemented to ensure	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
			understanding of the expectations; • Reduce the redundancies and remove overlapping of content between Greenhouse Gas Management policy and SF6 Management Plan. • Ensure coordinated effort and adequate stakeholding across all affected business units. • Establish a working group and/or subject expertise to ensure all elements of the overall management of SF6 gas are aligned and moving forward that technical knowledge and/or expertise is maintained to ensure effective execution of the overall strategy to minimize SF6 emissions.	accountabilities and expectations are managed during this transition. Put in place a working group to facilitate and monitor the implementation of the action plans.	
	2017-08	The operational effectiveness and work management required to meet the SF6 emission reduction and major leak repair objectives and targets, established by the Planning Division, needs improvement.	Enhance work management and maintenance practices to identify, repair and/or replace leaking SF6 equipment to reduce the amount of SF6 emissions to satisfy the SF6 leak reduction strategy and to meet the stated major leak repair objectives and targets. Suggested areas of focus should include: • Enhancing the BI report to provide a 52 week or yearly rolling view	Transmission Asset Management to: a) Review and update SF6 leak reduction strategy to ensure the accountabilities are current and the defined objectives and targets are executable. b) Update Key Performance Indicators for evaluating effectiveness of the SF6 gas management program and leak	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
			<p>rather than a segmented quarterly view.</p> <ul style="list-style-type: none"> • Incorporating a metric to capture number of times SF6 equipment has repeatedly leaked. • Clarifying the Key Performance Indicators used to evaluate the effectiveness of the SF6 gas management program and ensure it aligns with the overall leak reduction strategy. • Establishing mechanisms by which planners and operation staff can leverage Business Intelligence reports to enhance their ability to make informed decisions relating to the repair and/or replacement of repeat leaking equipment. 	<p>reduction strategy.</p> <p>c) Enhance the reporting process and BI report to gain better visibility to SAP data to identify repeat equipment leaks and for establishing SF6 equipment performance trends. This report will be made available to all planners involved in managing and maintaining SF6 assets.</p> <p>d) Update the SAP asset registry with SF6 gas handling equipment to enable and schedule preventive maintenance, track potential defects and maximize return on these assets.</p> <p>Reinforce to Stations staff the importance of accurately reporting SF6 top-ups for equipment in SAP and the need to identify and advise Asset Management of repeat/chronic leaking equipment.</p>	

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Power Quality Management (Bruno Jesus) Provide assurance that the key controls related to the management of power quality are effective. Our review focused on the control environment necessary to manage power quality related issues which affect the quality of power delivered to our customers.	2017-13	It was identified that some key stakeholders were unaware of the power quality strategy and implementation plan.	Review and update the power quality strategy and implementation plan documents, review with senior management and key line of business stakeholders involved in the process to ensure a common understanding of the strategy to efficiently and effectively address power quality issues raised by our customers.	Review the existing power quality strategy and implementation plan documents; determine existing and new initiatives that should be part of these plans going forward with input from key stakeholders. (incl.: Customer Service, Provincial Lines, NOD)	COMPLETE
Investment Plan - Governance - Delivery - Follow-up (Bruno Jesus) Provide assurance that Hydro One has completed the committed actions and addressed all the audit recommendations and mitigated the associated risks.	2017-14	Roles and accountabilities need to be better defined to identify emerging risks.	Develop and implement a process with accountabilities to identify emerging risks and periodically incorporate the results of risk workshops into an overall Planning business risk register for appropriate tracking by specifying business objectives, risks, risk owners, mitigating actions, and target completion dates.	The requirement to conduct risk assessments on the annual Investment Plan will be added to the overall Investment Planning deliverables each year. Any recommendations/action items resulting from the risk assessment will be added to the Planning Division's tracker for action items (Internal Audit, AEI, etc.)	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-14	It was identified that some policies and directives were outdated.	Review and formalize existing management direction, presently being delivered as part of Investment Planning training, into governance documents (policies, processes, procedures, standards, guidelines, etc.) and decommission outdated governance documents (including draft policies and process documentation within ARIS).	Appropriate governance documents (policy, process, procedure, standard or guideline) will be established taking the existing Investment Planning training material into account. All other existing draft documentation that no longer applies will be removed (e.g. ARIS).	COMPLETE
	2017-14	Outcomes and metrics for the end-to-end investment planning process must be better defined.	Establish and implement appropriate measures and targets for the Investment Planning Scorecard (specifically for non-accomplishment related measures such as estimate quality, Potential Need (PN) notifications that are actioned/accepted, etc.). Track “go to green” action plans for management to achieve the targets either for the current or future Investment Planning cycles. Document the results of quality assurance reviews performed by management and feedback given to planners.	Key performance indicators (KPI) for the investment planning process will be developed and incorporated into 2018 scorecards for impacted directors as per the recommendation.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-14	Requirements identified in the Asset Analytics workshops have not been fully implemented.	Continue to identify and correct issues with Asset Analytics input data and risk factor algorithms that will affect the degree to which the output results can be used to influence investment decisions.	Plans related to data required for Asset Analytics will be developed and key steps and milestones to address the recommendation will be tracked in the Divisional Scorecard.	COMPLETE
	2017-14	Data needed for Asset Analytics & Asset Investment Planning tools are not consistently gathered.	Review and establish appropriate funding and actual implementation plans for the enhancements identified in the Asset Management Tool Integration Roadmap.	Management will review the tool enhancement roadmap, to determine necessary enhancements taking into account cost/benefit with decisions to keep, defer or discard items.	COMPLETE
Investment Planning Support Tools (Donna Jablonsky) Provide assurance that key controls are in place for the effective use of the Asset Analytics and Asset Investment Planning tools to support the investment planning process.	2017-17	Currently, there are no measures in place to periodically monitor consistent and effective use of Asset Analytics (AA).	Develop and implement suitable measures to periodically monitor consistent and effective use of AA within Planning.	We will review the existing use of AA tool capabilities and develop measures for its effective use that can be tracked as part of the Planning Scorecard.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-17	Asset Analytics Algorithms require improvement to be effective.	Ensure that the identified needs for changes to data and algorithms for asset risk index calculation are prioritized and implemented on a timely basis.	As per our current plan, we will monitor the implementation of a) enhancements related to existing ARI algorithms and existing data and b) enhancements related to existing ARI algorithms requiring new data enhancements by end of 2018. We will look for opportunities to expedite this work along with c) Enhancements related to new ARI algorithms and new data.	COMPLETE
	2017-17	There are some data from source systems that are used as inputs to the Asset Analytics (AA) tool with some quality issues which resulted in unreliable Asset Risk Index calculations/outputs from the tool.	Ensure that appropriate mechanisms are in place for periodic monitoring, escalation for follow-up and correction of known data quality issues with the owners of the supporting data systems.	We will discuss source system data quality issues with the system owners and then implement periodic monitoring and correction of identified issues by the system owners.	COMPLETE
	2017-17	There is a lack of specific documented expectations or guidelines on how the Asset Analytics data and tool analytical capabilities and features are to be used for the Investment Planning process.	Develop and communicate appropriate guidelines to ensure consistent and effective use of available AA data and tool capabilities for investment planning assessment needs.	We will review and formalize the current Asset Risk Assessment process in our policy documents along with revision and/or development of suitable processes, procedures, guidelines and training on consistent use of AA data and tool capabilities.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-17	Currently AA is primarily used for sustainment capital projects and not for development projects or maintenance programs.	Review the current use of the AA tool capabilities and determine which are required for on-going use. Perform a cost/benefit review of features to determine their continued use. Provide the required training and support for capabilities that are available (such as ad-hoc BOBJ Reports).	We will initiate a review of the AA tool features and capabilities with the intent to specify and reinforce which features and capabilities are to be used for what purpose. We will perform a cost/benefit review of features prior to determining if any should be decommissioned.	COMPLETE
Work Scheduling - Stations (Andrew Spencer) Provide assurance that the key controls related to the management of station work scheduling function are effective.	2017-20	Currently there is no clear schedule change management process or prioritization criteria established for station work.	Document, stakeholder, and implement a schedule change management process with defined prioritization criteria to manage schedule changes for efficient work execution.	Work Program Management will facilitate the stakeholding and implementation of a work prioritization process and establish prioritization criteria, with inputs from Asset Management, Station Services, and Project Delivery, to facilitate the change management of station work schedules.	COMPLETE
	2017-20	There are no specific measures currently in place for periodic monitoring of scheduling efficiencies.	Develop and implement suitable measures to periodically monitor work scheduling efficiency trends to drive continuous improvements of the scheduling function.	Work Program Management will develop and implement appropriate measures, with input and support from Station Services, to periodically monitor the effectiveness of station work scheduling to improve efficiency of the scheduling function.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-20	A training program was developed in 2015; however it has not been implemented. Currently, newly hired scheduling staff is expected to job shadow an experienced scheduler for an unspecified period of time for required knowledge transfer.	Formalize and implement a training program for station schedulers (Planning & Scheduling Technicians and Maintenance Schedulers) to further develop and retain staff capabilities, and to drive consistent work practices for the work planning and scheduling functions.	Station Services will develop and stakeholder an implementation plan on a formalized training program for all station schedulers (Maintenance Schedulers and Planning & Scheduling Technicians) to improve staff's knowledge of the station work planning and scheduling functions and to drive consistency of work practices across all zones.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-23	System Control had recently participated in the North-American Transmission Forum (NATF) Survey on the subject of "Black Sky" events where several mitigating actions were under consideration. Federal Energy Regulatory Commission (FERC) had issued a report related to the subject of "Black Sky" events in June 2017 with several recommendations to utilities, which were reviewed by System Control management with recommended further actions but no clear progress has been made.	Assess Black Sky event risks and make progress in identifying and implementing of mitigating action(s) recommended by the NATF and FERC reports on transmission resiliency.	Participation in the NATF forum will continue to develop and implement mitigating actions that are suitable for the Hydro One transmission and distribution systems. A risk registry has been developed which is reviewed annually for new threats. Provisions are in place to update the registry prior to annual review should new risks to operations are identified.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Transmission Reliability Strategic Plan (Bruno Jesus) Provide assurance that controls and processes were in place to support a transmission reliability strategy that provides governance, clear accountability and direction to support a reliable transmission system.	2017-24	There is no strategic plan document that describes how the company will achieve its operational targets for transmission reliability, however management shared with us their Journey to Operational Excellence, COO Roadmap and Operating Mode which identifies the vision, goals and initiatives within	Develop and implement an overarching transmission system reliability strategy to align with corporate strategic objectives and achieve operational reliability targets. The implementation should include formally defined roles and responsibilities, including lead accountability for the overall plan, communication of the plan to the Operations organization along with change management.	Work to create a transmission reliability strategy is already underway and aligns with the corporate operational roadmap. This work will be continued along with the implementation of the strategy as recommended.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		Operations including the initiative to develop an Asset Management Strategy.			
	2017-24	There is a no clear association between the key transmission reliability metric identified in the Journey to Operational Excellence Scorecard and the corporate risk tolerance, risk profile and corporate priorities.	Establish reliability metrics that address all of the key functions of the transmission system in alignment with corporate risk tolerances, risk profile and corporate priorities (i.e. bulk transmission capabilities, load serving to all customers, customer needs, Hydro One's presence in the North American marketplace).	Additional reliability metrics will be established to address the recommendation including the following: a) Targets will be established for TxSAIDI and TxSAIFI to include both Single and Multi-circuit supplied delivery points. b) Existing reporting of events resulting in reliability and power quality disruptions at specific delivery points will be enhanced. c) Reliability assessments will be enhanced to enable benchmarking throughout North America.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-24	Although a Maintenance Plan and Work Standard Document Review process document is in place, it does not prescribe a maintenance strategy or approach to be applied when determining maintenance plans for equipment.	Establish a standard asset maintenance methodology to efficiently and effectively support the achievement of reliability targets.	A standard asset maintenance methodology in alignment with ISO 55000 will be established.	BEHIND SCHEDULE
	2017-24	Leading metrics linked to potential impact to reliability have not been established which may create the risk of the accumulation of deficiencies over time that would result in system reliability deterioration.	Identify leading asset performance-based metrics that would serve as early indicators before changes to transmission reliability would be detected by the selected TxSAIDI metric.	Trending of equipment based trouble calls and deficiency reports for tracking of degradation of assets over time will be established. This will highlight, at an early stage, any broad based deterioration of equipment performance that might affect transmission reliability over the long term.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Warranty Claims Procedure (Rob Berardi) Assess the effectiveness of controls over the new warranty claims process, including the warranty clause inclusion in the purchasing agreements with vendors; warranty and claim identification, assessment and communication to the stakeholders as well as tracking and monitoring of the warranty claim to its collection (or resolution).	2017-25	There are varying degrees of knowledge and familiarity with respect to the new warranty procedure. The Supply Chain role is clear in the process, but the roles and accountabilities pertaining to the other stakeholders have not been clearly articulated and communicated.	Update the existing warranty procedure and associated flowcharts to more clearly articulate the roles and accountabilities that are assigned to the stakeholders other than Supply Chain throughout the process.	A RACI chart will be documented to add additional clarity and consistency. An enhanced communication plan will be developed and executed which will continue to reinforce the Warranty and Claims Management Procedure in 2018.	COMPLETE
Utility Work Protection Code - Controlling Authority - Ontario Grid Control Centre (Godfrey Holder) Review the processes and controls in place to ensure effective preparation and execution of the UWPC permits issued by System Control as the Controlling Authority at the OGCC to Hydro One permit	2017-29	The existing Utility Work Protection Code process documentation pertaining to the preparation and execution of work protection packages at the Ontario Grid Control Centre (OGCC) are out of date and do not reflect the current state.	1. Document and analyze the current state of the UWPC processes at the OGCC to identify the process breakdowns/gaps, handoffs, key deliverables, critical timelines/deadlines, roles, accountabilities, interdependencies with other processes, tasks and tools and identify process improvements. 2. Revise and update the PC1 Standards document so that it reflects critical timelines within the	1.1 Operating Planning and Networks' work flow will be reviewed and clarified. Directly impacted documents will be updated accordingly and pending documents will be removed from System Operations' active document repository. 1.2 PC1 Standards document will be reviewed and revised as required to reflect any changes associated with the recommendation.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
holders.			UWPC application process to enable effective study and review of the work protection and outage packages.		
	2017-29	Inadequate tracking of outage packages (containing UWPC forms) to assess completeness and accuracy.	Establish a formal tracking and monitoring mechanism to record defects, re-work, short notice or missing information to identify deficiencies in the planning and/or executing processes so that corrective actions can be taken internally within System Control and where required, communicate externally to other Lines of Business.	2.1 The team will develop and review a single mechanism to monitor churn of Work Protection Documents, identify and resolve deficiencies internal to System Control and work with the field management staff to resolve any issues concerning incoming applications.	COMPLETE
	2017-29	System Control is relying on compensating controls to manage uneven UWPC work volumes.	1. Establish a review process to determine acceptable volumes and thresholds for reviewing UWPC packages in a safe and effective manner, based on available resource levels.	3.1 The team will review the volumes of work protection processed in the control room and work to align expectations with other LoBs. We will work with field management staff to	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
				develop a balanced work week for processing work.	
	2017-29	System Control is relying on compensating controls to manage uneven UWPC work volumes.	2. Communicate to Lines of Business (such as Stations, Construction, Lines, etc.) required timelines for UWPC applications according to PC1 Standards document along with the need for a balance of UWPC work applications throughout the work week.	3.2 Upon completed review of the PC1 Standards document and any required changes, communicate the changes and expectations to impacted LoBs.	COMPLETE
	2017-29	Inadequate Change Management Process for updating and maintaining UWPC Forms and Application database content (i.e., isolation points) using TIPs (Template Isolation Points).	1. Determine reasonable timelines for Lines of Business to provide information to the UWPC Transmission Change Control department.	4.1 Operating Planning will review the overall In-Service Package timelines required for information and will work with the other LoBs to develop acceptable and documented timelines.	COMPLETE
	2017-29	Inadequate Change Management Process for updating and maintaining UWPC Forms and Application database content (i.e., isolation	2. Communicate timeline expectations to Lines of Business requesting changes and/or updates to isolation templates.	4.2 Coordinated timelines will be communicated across all affected LoBs as agreed during establishment of overall expectations.	COMPLETE

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		points) using TIPs (Template Isolation Points).			
	2017-29	Inadequate Change Management Process for updating and maintaining UWPC Forms and Application database content (i.e., isolation points) using TIPs (Template Isolation Points).	3. Establish a succession plan to ensure adequate resourcing to implement changes to the isolation templates.	4.3 Operating Planning will review the staffing plan for In-Service Package group to ensure proper staffing resources to implement changes to isolation templates and develop a succession plan.	COMPLETE
	2017-29	Nightly self-assessment mechanism performed by on-shift Controllers for review of deficiencies is informal.	1. Formalize and establish prescribed criteria for assessment of the completed/executed UWPC outage packages.	5.1 Operating Networks will review the overall expectations of the nightly work protection audit (local review). We will document and formalize this process.	COMPLETE
	2017-29	Nightly self-assessment mechanism performed by on-shift Controllers for review of deficiencies is informal.	2. Conduct a quality assurance review of the UWPC packages reviewed by the Controllers on the night shift to determine the effectiveness of the process.	5.2 We will review the UWPC packages to examine the quality of the night shift Controller's review to determine effectiveness of the program.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-29	OGCC's Single Point of Contact program for assisting in better planning and execution of the staged outages and related work protection for capital brown-field and green-field projects needs improvement.	Working with the Project Implementation team, formalize Operating Planning and Networks SPOC program for capital projects by establishing clear guidelines and assessment criteria requiring assignment of OGCC Controllers. In addition, the SPOC roles, accountabilities and expectations for their involvement should be documented and participation of individuals in the program should be tracked systematically.	6.1 Operating Networks and Operating Planning will formalize the role of the Single Point of Contact for complex projects, outlining when required, expectations and accountabilities including a formal tracking mechanism.	COMPLETE
Polychlorinated Biphenyls Management (PCB Management) (Donna Jablonsky) Review and assess the adequacy and alignment of corporate strategy, business plans, and work programs within Distribution Lines, Distribution Stations, Transmission Stations, and Facilities for ensuring compliance with the Canadian Environmental Protection Act - PCB	2017-31	There is a lack of communication strategy to effectively manage Environment Canada relations and internal / external inquiries related to potential PCB regulatory non-compliance.	Develop and implement a communication strategy to effectively manage Environment Canada relations and internal / external inquiries related to potential PCB regulatory non-compliance.	Environmental Services working with other Lines of Business will prepare a communications strategy to manage Hydro One's relationship with the regulator.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Regulations 2009 and 2025 End-of-Use deadlines, and the Company's PCB Management Plan.					
	2017-31	There are SAP Geographic Information System (GIS) Integration interface (commonly referred to as SGI) issues related to the design and implementation that are creating a backlog of required changes in SAP and the GIS software application.	Enhance the overall performance of the SGI Interface by giving consideration for: <ul style="list-style-type: none"> • Identifying the root cause(s) with the SGI Interface that are causing data errors in the two system of records (i.e., SAP and GIS); • Developing a remediation plan to resolve the defects; and • Outlining a timeline for implementing the necessary upgrades and/or fixes. 	ISD will initiate a discovery into the SGI interface issues to identify root causes. The deliverable for this will be a remediation plan with milestones. The remediation plan may require a combination of new requirements as well optimizing existing SGI requirements.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-31	There were inconsistencies on information related to PCB Measuring Points in the SAP registry.	Conduct a review to verify, validate and eliminate duplicate and/or incorrect PCB Measuring Points in the SAP registry to ensure PCB analysis test results are stored in a correct manner to address the audit observation.	Distribution and Transmission Planning will work with ISD to address the issue of duplicate measuring points.	COMPLETE
	2017-31	It was identified that there is an insufficient oversight, monitoring and tracking of Hydro One's PCB phase-out progress against PCB regulatory compliance requirements.	Establish an appropriate framework to ensure the tracking, monitoring and reporting of the overall progress of the PCB Management Plan moving forward and maintain appropriate level of knowledge continuity and expertise. Consider leveraging a key LoB stakeholder group, similar to the Environmental / Operational working group, to accomplish this oversight framework.	Environmental Services will establish monthly and/or quarterly meetings by Q1 2018 and in collaboration with the Lines of Business we will develop and document a framework for tracking overall progress and identify key teams and/or individuals involved in the PCB phase-out program.	COMPLETE
	2017-31	Hydro One's PCB governance document needs to be revised to clarify the Company's internal PCB phase-out criteria, LoB accountabilities and End-of-Use Deadlines.	Clarify the limits for classifying acceptable level of PCB concentration as well as the pre-1985 criterion for Hydro One's assets in the various Lines of Business.	Environmental Services will work with the Lines of Business to clearly establish Hydro One's internal limits for acceptable levels of PCB concentration and pre-1985 criterion.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-31	Hydro One's PCB governance document needs to be revised to clarify the Company's internal PCB phase-out criteria, LoB accountabilities and End-of-Use Deadlines	Update the PCB Management Plan, to reflect the clarified internal criteria, revised LoB accountabilities, and corrections to Table 3 End-of-Use deadlines.	We will review and revise the document and address the observations highlighted in this observation.	COMPLETE
	2017-31	Hydro One's PCB governance document needs to be revised to clarify the Company's internal PCB phase-out criteria, LoB accountabilities and End-of-Use Deadlines.	Communicate revisions to affected Lines of Business to ensure they are incorporated into the relevant strategies, business plans, progress reports and dashboards.	Upon review and/or revision of PCB Management Plan, we will communicate the changes to ensure staff are provided with clear direction.	COMPLETE
	2017-31	The Company may be at risk of being found non-compliant with Environment Canada's PCB Regulation - 2009 End-of-Use deadline due to the potential existence of Distribution system padmount transformers and Transmission system capacitors that may contain PCBs ≥ 500 ppm.	Based on the results of the capacitor bank survey, develop and implement a program to establish an appropriate timeline to achieve regulatory compliance, and decommission and/or discard non-compliant units to achieve the PCB Regulation's End-of-Use deadline for equipment with PCBs ≥ 500 ppm.	The survey pertaining to the capacitor banks has been completed in 2017. The results will be analyzed and a remediation plan will be developed for any suspect equipment.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
ISOC Requirements Traceability (Godfrey Holder) Provide assurance that the processes and methodology being followed to capture the various LOB requirements into the Project's scope and detailed designs were effective, properly reviewed, approved and monitored and that adequate recordkeeping was in place.	2017-43	Controls over document storage and distribution, which are especially relevant in relation to project designs, have not been established.	We recommend adopting information classification and handling standards for major documents related to ISOC, particularly the compiled drawings. As the project approaches the RFP phase, the project leadership team need to ensure that adequate document control requirements are followed by the vendors during the tendering process.	Provisions in the Non-Disclosure Agreement for the RFP will be provided to all proponents, and additional security features will be applied to project documents.	COMPLETE
	2017-43	The contingencies for both the overall Class A Estimate and the construction budget by NOD were not the result of a detailed risk assessment based on the project's requirements.	A risk-based approach should be adopted to calculate project contingencies. The contingencies should be linked to defined project risks, as identified by all key stakeholders.	The contingencies were calculated based on industry experience by RLB LLP. The contingency will be revisited after the RFP phase and if necessary re-estimate them based on a risk assessment conducted with the stakeholders.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-43	Project costs may exceed the initial budget defined in the Project Charter which is dated June 2016. The initial budget was based on a Class C estimate; whereas a "Class A" estimate was recently concluded.	We recommend revising the current estimate and ensuring a Project budget to be based on the Class A Estimate following its revision if required.	The most accurate budget will be prepared as a result of the offers received from the contractors. Once the offers are received and as necessary, we will revise the project budget, which will be presented to the Board of Directors and be used as the official budget for future assessment, monitoring, and control.	COMPLETE
Construction - Site Inspections (Andrew Spencer) Provide reasonable assurance that controls related to Site Inspection in relation to the creation of the Plans, monitoring performed by Burns & McDonnell, and completion of corrective actions are effective.	2017-44	We noted inconsistencies in the review and approval of the project-specific Plans.	Portfolio Management, in coordination with Project Delivery, needs to ensure that all project-specific plans are developed and properly reviewed by the specialized area at Hydro One. Furthermore, contractors need to reflect Hydro One's requirements in all the project-specific plans.	Portfolio Management will work with Project Delivery to ensure that the plans are submitted by contractors for all contracted projects with proper reviews by Hydro One specialized areas. Contractors will update the plans based on Hydro One's feedback and Site Inspectors will review the plans in accordance with the Field Operations Manual.	COMPLETE
	2017-44	The Site Inspectors do not verify if the commitments assumed by the contractors in the project specific health and safety plan are being properly	Portfolio Management, in coordination with H&S, needs to ensure that Site Inspectors monitor contractors' compliance with the PSHSP and the Occupational Health and Safety Act (OHSA) regulations.	Quality Assurance group will conduct regular oversight of Site Inspectors to ensure that they are monitoring the contractors' compliance with the PSHSP and OSHA regulations which will be	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		performed.		documented in the daily inspection reports.	
	2017-44	We noted a lack of evidence that Site Inspectors were monitoring the contractors' compliance with the Environmental Management Plan (EMP) which is approved by the Environmental Group as required by the Field Operations Manual.	Portfolio Management, in coordination with the Environmental Group, needs to ensure that Site Inspectors review and comply with the EMPs during the project lifecycle.	QA Group and Project Delivery will work with the Environmental Group and Burns & McDonnell to ensure that Site Inspectors will review, monitor, and document contractor compliance with the EMPs during the project lifecycle and that any environmental issues will be highlighted in the daily inspection reports.	ON SCHEDULE
	2017-44	Not all Project Managers support the site inspection process, demonstrate knowledge of the requirements as detailed in the Field Operations Manual (FOM), or monitor the Site Inspectors to ensure compliance with the FOM.	Management needs to ensure that Project Managers support the site inspection process, understand the requirements of the Field Operations Manual, and monitor the Site Inspectors' compliance with the requirements of the Filed Operations Manual.	QA Group will work with Project Delivery to update Project Manager's roles and responsibilities within the FOM to be consistent with the Contract Management Process and RACI, providing training to Project Managers focused on understanding the requirements of the Field Operations Manual, and reinforce the importance of the site inspection process.	IN PROGRESS

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-44	Although the Project-Specific Quality Plan (PSQP) includes detailed methods for the quality inspection and tests to be performed by the contractors via Inspection Testing Plans (ITPs), there is no formal way to ensure that the Site Inspectors are checking the accuracy and completeness of the ITPs prepared by the contractors, nor are they gathering any evidence that the PSQP is being properly followed.	We recommend that the QA Group in coordination with the Project Managers monitor and ensure there is sufficient evidence of the completion of all required tests and inspections, as per the relevant PSQP and ITPs, in an effective and timely manner.	Management advised that the ITPs were implemented during 2017 and accordingly it was expected that some projects would not provide ITPs according to HONI's current requirements. Kick off meetings between Project Manager and QA Group including Site Inspector are currently in effect and have a formalized agenda. The daily inspection reports will include references to specific PSQP and ITPs' tasks that were observed by the Site Inspectors on the same day; and site inspectors will acknowledge completion of key documentation (testing and inspections).	COMPLETE
	2017-44	The Task Safety Observation form was developed and implemented by Burns and McDonnell to list safety aspects required to be verified by the Site Inspectors on a daily basis. During our review, we observed that the TSOs were not developed by	The QA Group needs to work with Burns and McDonnell to ensure that TSOs and daily inspection reports are developed on a daily basis for all projects (unless agreed otherwise with the Project Manager) and distributed to the intended audience (QA Group, Project Manager, H&S) and stored in the corresponding SharePoint folder.	QA Group will determine with input from H&S how the Health and Safety observations should be tracked (whether through TSOs or otherwise) and modify the FOM accordingly.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		<p>Site Inspectors on a daily basis. We also noted that the TSOs are only distributed to the Project Managers and QA Group on a monthly basis, in a consolidated document.</p>			
	2017-44	<p>During the project construction phase, the issues identified by the Site Inspectors are reported through the daily inspection reports and TSOs, but there is no consistent tracking process for their resolution.</p>	<p>Portfolio Management, in coordination with Project Delivery and Burns & McDonnell, needs to define how the issues identified by the Site Inspectors and their resolutions will be tracked including corrective actions, responsibility, original and any revised completion dates, current status, etc.</p>	<p>Portfolio Management will work with Project Delivery and QA Group to define and implement an effective way to track resolutions for issues identified in the daily inspection reports. The tracking will be focused on use of the ongoing project Deficiency List as a means to record issues, action issues, and identify disposition. The Deficiency List may include areas for documenting Quality, Safety and Environment issues. Project Manager will ensure that Deficiency List be reviewed at project meetings with the contractor.</p>	COMPLETE

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-44	The Field Operations Manual (FOM) lists the required training for the Site Inspectors, which should be taken prior to performing any job on site. However, the QA Group and Burns and McDonnell were unable to provide evidence that Site Inspectors were trained accordingly.	The QA Group in coordination with Engineering needs to ensure that Site Inspectors receive the required trainings, understand the applications of the ITPs, and realize the ultimate benefits for their use. Evidence of provided trainings needs to be documented. We also recommend updating the CN Form in order to include all trainings mentioned in Field Operations Manual.	QA Group will ensure that: 1. Training will be provided to the Site Inspectors in relation to the Generic Minimum ITPs and relevant Hydro One policies as part of their orientation; 2. The Field Operations Manual will be updated to reflect the most current training requirements; and 3. Evidence of training will be documented by storing records on the QA SharePoint site.	COMPLETE
Construction - Site Inspections (Andrew Spencer) Provide reasonable assurance that controls related to Site Inspection in relation to the creation of the Plans, monitoring performed by Burns & McDonnell, and completion of corrective actions are effective.	2017-44	It were identified inconsistencies related to Specific Health and Safety Plans related to the development and following through of specific plans by contractors and opportunities for improvements related to the Hydro One's internal templates.	Portfolio Management, in coordination with H&S, needs to ensure that Site Inspectors monitor contractors' compliance with the PSHSP and the Occupational Health and Safety Act (OHSA) regulations. Safety and other issues noted in the Task Safety Observations need to be reflected in the daily inspection reports. Furthermore, the Field Operations Manual needs to be validated by H&S, and define when a Health & Safety professional is required to be present on site by the contractors. We also recommend that H&S provides oversight of the work performed by the Site	QA Group will work with H&S and Burns & McDonnell to ensure the following: 2. Review and validation of the Field Operations Manual by H&S; 3. Gather recommendations on appropriate oversight; 4. Define criteria where a Health and Safety Professional is required on projects.	ON SCHEDULE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
			Inspectors in relation to safety.		
	2017-44	We noted a lack of evidence that Site Inspectors were monitoring the contractors' compliance with the Environmental Management Plan (EMP).	<p>Portfolio Management, in coordination with the Environmental Group, needs to ensure that Site Inspectors review and comply with the EMPs during the project lifecycle. We also recommend that the Environmental Group improves the coordination with the Site Inspectors, provide guidance as needed, and rely more on their services as they are available daily on site.</p> <p>In coordination with the Environmental Group, all</p>	<p>QA Group and Project Delivery will work with the Environmental Group and Burns & McDonnell to ensure the following:</p> <p>Based on the project execution plan, and the review of contractors' EMP, the Project Manager will have the responsibility to coordinate accountabilities between Environmental Group and Site Inspector to define when Subject Matter Expert (from Environmental Group) involvement is necessary and</p>	COMPLETE

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
			<p>observations during the environmental checkpoints by Site Inspectors need to be noted in the daily inspection reports.</p>	<p>what reporting is required.</p>	
<p>Construction Contract Monitoring - Major Contracts 2017 (Andrew Spencer) Provide reasonable assurance that the key controls related to contract monitoring are effective in relation to the compliance to key contract terms as they relate to Environmental, financial, legal, and regulatory aspects of the Contractors' work.</p>	<p>2017-46</p>	<p>The Contract Management Guidelines and their respective Forms are outdated and do not include guidance on major contract monitoring functions including compliance with legal requirements, schedule monitoring, milestone approvals, etc.</p>	<p>Update the Contract Management Guidelines, ensure consistency with the Site Inspection process, and improve Project Managers' compliance with the Guidelines.</p>	<p>Portfolio Management will work with Project Delivery and Transmission Lines to ensure updating and formally adopting the Contract Management Guidelines, Contract Management Forms Guide, and respective forms. Positions, roles and responsibilities will be updated.</p>	<p>ONGOING</p>

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-46	The Guidelines do not define the criteria to be followed by Project Managers in order to verify that a milestone was achieved, which is currently based on the Project Manager's discretion. Project Managers do not consistently issue the Certificates of Payment and Change Orders that should be used to approve contract changes.	Milestone payment acceptance criteria need to be created by Portfolio Management and included in the Contract Management Guidelines for every milestone type in order to be used by the Project Managers.	Portfolio Management will work with Project Delivery and Subject Matter Experts to define the appropriate milestone payment acceptance criteria, define project specific milestones and the respective acceptance criteria at the beginning of every project, ensure the compliance of Project Managers with specific guidelines including the consistent issuance of the Certificate of Payment and Change Orders when needed, and identify a specific milestone for clearing the Category B deficiencies following the achievement of the Substantial Completion, which will be shown in the contract's milestones schedule.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-46	Project Managers do not consistently monitor the completion of "Form 13 - Contract Partial or Final Inspection" by Site Inspectors, which are required to ensure the Substantial Performance or Total Completion of a contract.	The updated Contract Management Guidelines need to be disseminated to all those involved in the contract monitoring process, including but not limited to: Project Managers, Site Inspectors, HONI Environmental Team, Contract Managers/Specialists, etc. Additionally, Project Delivery needs to reinforce that the Project Managers comply with the Contract Management process, including the use of the Contract Management forms.	Following the update and final adoption of the Contract Management Guidelines, Portfolio Management, in coordination with Project Delivery, will ensure Project Managers comply with the Guidelines including the required site inspection forms that ensure the Substantial Performance and Total Completion of a contract.	COMPLETE
	2017-46	When there are offsite disposals of hazardous material, Project Managers do not consistently obtain evidence from the contractor that confirms the disposal was appropriately managed as mandated in the contract or required by the Environmental group.	Project Managers need to consistently obtain evidence from the contractor ensuring that offsite disposals were appropriately managed when required. Identify who is responsible to request and review these documents. The responsibilities of the Site Inspector and Hydro One's Environmental Team to support Project Managers in offsite disposals need to be clearly identified in the Contract Management Guidelines and reinforced at the beginning of every project.	Portfolio Management will coordinate with Project Delivery and the Environmental team to ensure the consistent monitoring of offsite disposals when required for all projects. Project Managers will be clearly identified as the accountable party to monitor offsite disposals with the support of Site Inspectors and the Environmental team at Hydro One, and the Contract Management Guidelines will be updated accordingly.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2017-46	The current Contract Management Forms Guide instructs the user to only release holdbacks after all deficiencies (Category A and B) have been cleared, which seems not to be aligned to the Construction Lien Act.	The guidance on Holdback Policy in the Contract Management Guidelines and the Forms need to be updated considering the Construction Lien Act's requirements. Portfolio Management needs to seek legal advice to ensure that the policies in the Forms are consistent with the Construction Lien Act.	Portfolio Management, in consultation with the Legal department at Hydro One, will update the guidance on the Holdback policy in the Contract Management Guidelines and Forms to ensure consistency with the Ontario's Construction Lien Act.	COMPLETE
In-service addition Process Review (Andrew Spencer) Provide assurance that appropriate oversight and controls are in place to ensure that the in-service additions are budgeted, forecasted and added to the rate base in a timely manner such that capital assets meet regulatory conditions for being included in the rate base.	2018-06	Deviations from budgeted in-service additions and associated approvals are not documented. Deviations between budget and actual transmission in-service additions were observed for which rationale at the project and program level was neither documented nor approved.	Reinforce the month-end reporting process to keep track, document and approve deviations from budgeted in-service additions at project and program level.	Management has established plans to track, document and approve rationale for deviation from budget to actual in-service additions at the specific project and program level as part of the now-established redirection process. These will assist management in explaining any significant deviation from the annual level committed to the customers and the regulator.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2018-06	Decision criteria to determine costs and assets being declared in-service are not clearly documented. Rules for allowing "partial in-servicing" of project work and journal transfer of related costs are unclear as per the existing Report of Equipment In-Service (REIS) process. Untimely or incorrect capitalization of assets in the current year could lead to a cascading effect on future in-service additions.	Review the existing documentation to ensure that controls relating to "partial in-service" are clear so that only appropriate costs are capitalized after confirming that assets are actually being used for "intended purpose" from field operation.	Management will clarify and monitor consistent application of rules for declaring assets in-service then capitalize relevant costs as per the existing Report of Equipment In-Service (REIS) process. Portfolio Management will continue to seek clarification from Finance to ensure that in-servicing of assets or costs are completed as per the documented capitalization policy. Extraordinary items will be appropriately discussed with clear documentation of decisions with rationale.	COMPLETE
	2018-06	Heightened efforts in Q4 are expended to achieve the transmission in-service additions corporate year-end target. Heightened efforts near year-end to meet in-service addition targets may lead to increased operational inefficiencies and/or operational risks.	In addition to the in-service additions corporate scorecard dollar value measure, ensure that tracking of other performance factors are taken into account, including completion of budgeted work, adherence to plan (actual cost less than planned cost) and management of operational risks.	Management will initiate a review of the portfolio level metrics (such as cost and schedule adherence and milestone achievements) to complement the existing portfolio metrics around adherence to capital expenditure and in-service additions budget, to further drive best-in-class project and program-level reporting and demonstrate value to	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
				stakeholders.	

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
<p>Fleet Services - Management, Maintenance and Administration (Rob Berardi)</p> <p>Provide assurance that appropriate oversight and controls are effective to support business objectives of Fleet Services. The scope of this review included the oversight processes regarding third party management, fleet costs, inspections and repair work completion, asset safeguarding and disposal during 2017.</p>	2018-09	<p>On a monthly basis, ARI will invoice Hydro One the total cost of fleet transactions within a number of invoices broken out by fuel, maintenance, administration and fleet type. Management will perform a high level reasonability review of these costs that is based on the their understanding of overall fleet activity, seasonality and specific program activity. The design of this review may not be granular enough to identify unauthorized expenses or potential areas of savings. As a compensating control, authority limits have been established for individual transaction approval of fuel costs and maintenance, and exception reports are monitored to identify instances of non-</p>	<p>Fleet Services should collaborate with stakeholders to define a repeatable review process that may include the following:</p> <ul style="list-style-type: none"> • Cross checks that tie invoice data to work orders. • Key assumptions/understanding of underlying business activity be documented to support reasonability assessments. • Define key areas of focus within underlying data that supports invoices (e.g. fuel cost/litre, litres/odometer readings, life to date repair costs by make, model, or driver). • Use of data analytics tools available within Hydro One to develop customized visualizations of fleet data from various sources (e.g. ARI, Telematics) to highlight anomalies within fleet data for further review. 	<p>We will perform the following:</p> <ul style="list-style-type: none"> • Collaborate as a team to determine areas of focus within the ARI invoice details to review each month and determine the level of granularity required. • Cross checks to front end data extracts. • Document key assumptions/summarize review. • Engage ARI to determine if further customized analytical reports can be provided. • Engage Internal Audit to perform a data analytics review of historical fleet costs to assist us in understanding anomalies, trends, etc. 	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		compliance to these thresholds. Management places reliance on the effective operation of these controls to gain comfort that transactions are appropriately approved.			

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Capital Project Stage Gate Review (Andrew Spencer) Provide assurance that the key process and controls related to the Transmission Capital Project Stage Gate (Stage Gate) review are effective, and validate that the defined stage gates are consistently being utilized and monitored.	2018-16	Quality of deliverables is subjective with no proper sign-off from functional Lines of Business.	Ensure that a consistent mechanism for quality assessment of deliverables is implemented and sign-off for each deliverable under the entry criteria is consistently obtained.	A quality metric for the assessment of all deliverables will be defined and implemented. This would include sign-off on deliverable quality from functional Line of Business.	COMPLETE
	2018-16	"Go/No Go" criteria are undefined for 2 of the 6 Stage Gates ("In-service" and "Project Closure") which are not yet fully matured; and Stage Gate presentations are not consistently provided to the Stage Gate Panel 3 days in advance of the meeting, as required by the process.	Ensure that the "Go/No Go" Criteria are defined for "In-Service" and "Project Closure" Stage Gates with clear rationale for Project Manager's assessment of each criterion. Ensure that Stage Gate presentation of acceptable quality is consistently made available to Panel Members at least three days prior to Stage Gate meeting as required by the process.	Process requirement will be reviewed with Chair and Panel as to strictness compliance of the 3 days pre-send out and how to address exceptions. The "In-Service" and "Project Closure" Stage Gate templates will be reviewed to reflect that there is no "Go/No Go" criteria. The Stage Gate presentations will be issued to the Panel Members at least 3 days prior to the Stage Gate meeting.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2018-16	There is inconsistent tracking of Actions and Conditions in the Tracker and there was no escalation of items with expired due dates. There was no independent confirmation of completed actions and conditions as reported by Project Managers. The Stage Gate Minutes of Meeting contained no reporting/discussion on previously identified actions and conditions.	Ensure that: 1. Actions and Conditions are accurately entered in the Tracker for timely follow-through 2. Expired actions and conditions are escalated with appropriate update of forecast dates 3. Completed actions and conditions are independently reviewed and confirmed as complete with appropriate documentation of their completion.	Actions and conditions will be consistently entered in the tracker with updated forecast dates and proper supporting documentation once an action or condition is marked complete. Expired actions and conditions will be escalated through regular management review.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Employee and Contractor Time Review (Sabrin Lila/Andrew Spencer) Evaluate the design and effectiveness of processes and controls related to employee and contractor timekeeping within Transmission and Stations. Audit focus was placed specifically on employees who submit weekly timesheets for approval and contractors who are compensated on a time and materials basis.	2018-17	Overtime hours are sometimes incorrectly allocated in system which may result in payroll errors.	Transmission & Stations needs to work with Enterprise IT in order to develop automated checks in SAP where the major union rules are applied for every employee based on his/her union affiliation, which help in reducing the possibility of errors before the timesheet approval is requested. Data analytics can be utilized and training needs to be provided for approving Managers where errors frequently occur.	Transmission and Stations will work with Enterprise IT and HR to update the functional requirements of the "Employee Central Pay Project" which will be kicked off in Q4 2018. T&S will also engage with Corporate Projects to ensure that our management needs and requirements are communicated in the scope definition of the project since T&S is an existing stakeholder of this project. Data analytics will be included as a requirement by T&S.	COMPLETE
	2018-17	Maximum allowed hours of work on a daily and weekly basis in case of emergency are not defined.	T&S needs to determine and monitor the limit on the total daily and weekly hours an employee can work during an emergency situation. The audience for the monitoring is the Director/VP levels which will be distinguished from any existing monitoring that may be in place for supervisors and other approvers.	T&S will work with Health & Safety to define the maximum number of hours an employee can work in a day or week (cumulatively) in case of an emergency situation. We will also work with Enterprise IT to produce monthly reports flagging outliers. A framework for tiered management approval for hours worked (including overtime) will	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
				be established which will cover alternative shifts.	
	2018-17	There is a lack of defined guidelines for the review and approval of hours in timesheets in addition to few automated controls, high volume of timesheets, and existence of multiple sets of overtime rules.	Define the guidelines that should be followed by Managers while approving employee timesheets including: Compliance with ESA, accuracy of reported hours, correct allocation of hours to Network Numbers or Work Orders, and the correct use and allocation of other job codes (Sick days, Jury duty, travel time, etc.); Ensure that all approving Managers are trained and consistently aware of the rules; For managers with high number of timesheets (ex: more than 20), define the sampling methodology and criteria that need be followed to approve timesheets.	We will work with Human Resources, Labor Relations, Enterprise IT, and other areas under T&S in order to: Define what needs to be monitored in relation to compliance with ESA, accuracy of reported time, correct allocation of hours, and correct use of job codes; Standardize and implement training related to the above; Define the sampling methodology and criteria to be followed by approving Managers who have a high number of timesheets to approve per week.	COMPLETE

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2018-17	Time & Material invoices approval process is not defined.	Transmission & Stations needs to define the requirements to validate the accuracy of Time & Material invoices including: The hours billed in the invoice related to professional services or equipment to have proper supporting documentation (i.e. timesheets) with matching values; All subcontractor amounts to have proper supporting documentation; The tracking of equipment usage and charged rental hours. Clients / end users to approve equipment rental invoices.	We will work with Supply Chain and other areas under T&S to define the requirements for validating the accuracy of contractor Time & Material invoices including: The hours billed to consistently have supporting documentation (timesheets) which equal the respective invoices; Subcontractor amounts to have proper supporting documentation; The tracking of equipment usage and charged rental hours. Documented approval by clients / end users for equipment rentals.	COMPLETE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Work Program - Cost Management and Reporting (Andrew Spencer) To review program work cost management processes and controls to ensure timely, complete and accurate forecasting, cost reporting and work accomplishment tracking against the approved annual Transmission and Stations business plan.	2018-19	Accurate planning and costing requires an understanding of the body of work that can be reasonably accomplished with available resources. Whilst Planning has established a process to request unit price updates and confirm executability of planned work program, a more consistent approach is needed in the execution of this process. And, although variances net out to zero for the overall approved programs budget, Management has committed to improving processes to support the accuracy of unit prices and the executability of the proposed work plan.	Establish a more consistent approach to confirm unit prices and executability of planned and budgeted work. 1) Program Managers should Review and confirm unit prices and scope for the program they manage including documentation of rationale for any changes. 2) Work Program Portfolio Management should formalize the work acceptance process for program work (similar to capital projects) following adjustments to planned funding and accomplishments through the investment planning lifecycle.	Unit prices will be confirmed and rational for changes will be documented by accountable Program Managers or change programs that cannot be unit priced to projects. At the beginning of each year, we will review and confirm that the funding and accomplishment levels for each program is consistent with what was agreed to with Planning during the Enterprise Engagement and gain approvals for any changes using Program Variance Approval process.	NOT STARTED

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2018-19	Management conducts monthly meetings to review program cost and accomplishment variance root causes and related commentary that are captured in the centralized "PP-191" report. However, the quality of variance commentary to explain the reasons for the variance and remedial actions that were taken is inconsistent. Management has committed to improving variance commentary in order to provide a more effective decision trail and to provide enhanced feedback.	Enhance the quality of program cost and accomplishment monitoring and forecasting commentary. To enhance the effectiveness of the monthly cost monitoring and forecasting process, it is recommended that Management: 1) Define a consistent process and tools (e.g. PP-191 reports) to be used by Program Managers in both WPM and PD. 2) Clarify roles and responsibilities for Program Managers along with required support from Finance and executing LOBs (such as Construction, Station Services, Distribution Lines, etc.). 3) Provide guidance and direction to Program Managers for documenting clear and consistent variance explanation with required details of further action/follow-up.	The tools and process followed by WPM and PD will be reviewed to ensure continuous improvement. Roles and responsibilities for Program Managers and support personnel will be in executing program work. We provide guidance and direction and continue to monitor the quality of program variance explanations with targeted training to enhance quality as required.	NOT STARTED

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2018-19	Decisions endorsed by the Redirection Committee are not consistently approved at an individual program level nor consistently communicated to the accountable Program Managers. Actions have been established to improve communications and enhance the ability of the Program Managers to effectively manage their program(s).	Establish a more formal approach to communicate program redirection decisions. To support the formalization of the Redirection communication and approval process, the following is recommended: 1) Review the new redirection process with Program Managers to clarify any expectations related to Program Manager's role in providing forecast and rationale for the redirection recommendations being made by Management to the redirection committee. 2) Work with Finance to ensure consistent documentation and approval of forecast changes which are below redirection thresholds. 3) Communicate redirection decisions to the impacted Program Managers following the redirection review.	Redirection process overview training will be provided to Program Managers. We will continue to develop a month end reporting package that will require formal signoffs at various levels of review and engage Finance to provide feedback on the current Project/Program Variance Approval process to highlight issues encountered and discuss approaches to allow for timely approvals. We will define communication protocol for Program Managers to be informed of redirection decisions in a timely manner.	NOT STARTED

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
Post Event Investigation Process Review (Bruno Jesus) Provide assurance on the control design effectiveness of the post event investigation (PEI) process in reducing the risk of future occurrence on failures to our network and key assets.	2019-03	Criteria to determine the criticality level of events have been substantially established but have not been consistently utilized to define the appropriate level of investigation.	Management should review the criteria (per SP1938) to ensure that the appropriate triggers are established and adequately populated to help define the criticality of the investigations and to facilitate trending analysis on key assets with repeated failures.	The PEI Standing Committee will review and establish the appropriate triggers necessary to define the criticality level of investigations. The Reliability and Analytics team will ensure the data fields are populated in the spreadsheet in order to facilitate trending analysis of repeated failures on key assets.	COMPLETE
	2019-03	Rationales to substantiate the PEI Standing Committee's decision on the criticality level of an investigation are not being consistently documented.	Management should document the rationale to support PEI Committee decisions on the criticality level of investigation in cases where it differs from the criteria ratings.	The rationale on the criticality level of investigations will be captured during the triage meeting with the PEI Standing Committee.	COMPLETE
	2019-03	There is no formal mechanism in place to preserve evidence and gather data for investigations.	Management should finalize and stakeholder the PEI policy and procedure with field personnel to establish a consistent level of awareness on the need to preserve evidence. Furthermore, establish a mechanism to define, communicate and follow-up on the evidence and data required for each criticality levels of investigations.	The Reliability & Analytics team will finalize, issue and stakeholder the policy and procedure and use it to educate personnel to make them aware about the importance of evidence and data. The procedure will define evidence and data required for high and medium level investigation to be captured by field crews	ON SCHEDULE

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
<p>Meter Service Provider Functional Review (Bruno Jesus)</p> <p>Provide assurance that key controls are in place for Hydro One to meet its obligations as a registered Metering Service Provider as per the Ontario Market Rules and its Metering Service Provider (MSP) Agreement with the Independent Electricity System Operator (IESO).</p>	<p>2019-09</p>	<p>Unclear centralized authority to oversee successful execution of MSP function by LoB stakeholders.</p> <p>A review of overall MSP function governance identified the following issues:</p> <ul style="list-style-type: none"> • governance documents (policies, processes, procedures, job aids, etc.) are currently in place to communicate MSP expectations and timelines to stakeholders but many are outdated in the evolving organization or remain in draft form (unapproved). • Key stakeholder LoB accountabilities are generally understood but not formally documented and communicated. • A centralized authority to provide updated directions, clarify 	<p>1. Establish a centralized oversight authority to ensure consistent understanding of MSP requirements, accountabilities and expectations among stakeholder LoBs and to manage known issues, risks and performance.</p> <p>2. Establish a mechanism to track, review, create/update, stakeholder, approve, communicate and decommission MSP governance documents on a timely basis to ensure compliance with market rules.</p>	<p>1. The Director, AMIO will be the governance oversight authority including documentation of the responsibilities of stakeholder LoBs to ensure compliance with Market Rules and the MSP Agreement obligations.</p> <p>2. We will establish a Statement of Work with input from each of the stakeholder LoBs defining the activities and a mechanism for MSP Governance document management.</p>	<p>NOT STARTED</p>

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		accountabilities, and manage known risks, issues and performance is not in place. No clear accountability matrix or inter-LOB Service Level Agreements are in place to ensure clarity of expectations, service quality, performance measures, etc. <ul style="list-style-type: none">• A centralized and active tracking of action to close communication gaps is not in place.			

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2019-09	<p>Lack of mechanism to ensure staff sufficiency and capability (training matrix and records) A review of controls related to MSP qualifications identified the following issues:</p> <ul style="list-style-type: none"> • Informal, on-the-job training is currently in place within each stakeholder LoB for staff performing MSP function. • AMIO Roles and Responsibilities for MSP function are well-defined along with a skills matrix for AMIO staff (Success factor) but there is no MSP function related training matrix or tracking in place for some LoBs • Assessment of having sufficient staff to meet MSP workload is performed by each LoB as part of their annual business plan but this is not formally declared or 	<p>1. Assess and document staff capacity needed for each LoB to meet the anticipated MSP workload with corrective actions to address any identified capacity issues. 2. Establish staff competency requirements (skills, knowledge and experience) as well as training requirement. Create and maintain appropriate records to demonstrate compliance with the MSP Qualifications listed in Market Rules Chapter 6, Appendix 6.4 as well as MSP agreement, articles 3.5 to 3.8.</p>	<p>1. We will work with the stakeholder LoBs to establish and ensure that their resource capacity is sufficient to perform the required MSP work. 2. We will work with the stakeholder LoBs to establish and ensure that their training requirements are in place along with a mechanism to periodically verify that each stakeholder LoB has qualified and trained staff with documented training records.</p>	NOT STARTED

Filed: 2019-08-02
EB-2019-0082
Exhibit I
Tab 07
Schedule 6
Page 54 of 56

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
		confirmed.			

Witness: All Witnesses

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
	2019-09	Ineffective Quality Assurance review for deliverables being submitted to IESO Market rules require a number of deliverables to be submitted to the IESO on a timely basis for meter point registration, commissioning, maintenance and trouble calls. These deliverables have been rejected by the IESO on multiple occasions due to completeness and quality issues, requiring rework and resubmission.	1. Establish a quality assurance process to ensure that all deliverables being submitted to the IESO are of required quality and meet the submission timelines. This will minimize the number of errors and/or rejections and required rework. 2. Establish accountabilities and mechanism to identify, track and action any deteriorating quality performance as reported monthly by the IESO (e.g. timely submission of Site Registration Reports, Engineering Unit Reports, commissioning reports, etc.)	1. We will work with the stakeholder LoBs to establish and ensure that Quality Assurance requirements and performance measures are in place. 2. We will review deficiencies identified during past IESO meter point audits to identify root causes and identify and monitor to resolution the corrective actions to address similar deficiencies for all other meter points.	NOT STARTED
Health and Safety - Apprenticeship Training (Sabrin Lila, Andrew Spencer) Review the adequacy of mechanisms in place for embedding and integrating safety into Hydro One's Apprenticeship Training program to enable the development of safety	2019-11	Despite having a mature and highly structured program, the apprentice workforce has a higher rate of Recordable Injuries compared to the non-apprentice workforce. There has been limited, ad hoc trending and analysis of apprentice incidents in the past. Currently, apprentice incidents are	1. Conduct a detailed analysis of apprenticeship safety incident data to gain greater insights into potential root cause and/or causal factors contributing to apprentice incidents and the higher Recordable Injury rate.	1. Health, Safety & Environment (HSE) will conduct a detailed analytical review of apprenticeship safety incident data.	NOT STARTED

Audit Name	Report #	Observation	Recommendation	Action Plan	Status of Action Plan
competencies and behaviours within its apprentice workforce.		not being analyzed and reported on separately from other employees.			

A - SCHOOL ENERGY COALITION INTERROGATORY - 007

Reference:

No reference provided

Interrogatory:

Please provide a copy of all budget guidance documents that were issued regarding the budgets that underlie the application.

Response:

Attached please find:

- Attachment 1 – Presentation: Investment Planning Kickoff
- Attachment 2 – Presentation: Phase 1 Customer Engagement Results
- Attachment 3 – Presentation: Phase 2 Customer Engagement Results

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-007
Page 2 of 2

1

This page has been left blank intentionally.

2021-2027 Investment Planning Kick-off Session

FEBRUARY 11, 2020



Agenda and objectives for today's discussion

Agenda

- Safety Moment
- Planning Framework and Strategic Considerations
- Process Overview
- Strategic Finance Update

Objectives for today

Review the approach for the 2021-27 Investment Planning Process:

- 1 Review the **guiding principles** of the investment planning process
- 2 Understand the **purpose of, and your role in**, each process stage
- 3 Discuss **expectations** and next steps for the planning process

Safety Moment

Planning Framework and Strategic Considerations

Process Overview

Allocations and Outcomes

Strategic Finance Update

Workforce Planning Update

Safety Moment: There's no such thing as being too prepared

What were you doing at 7:20 am on January 12th, 2020?

- The Canadian Nuclear Safety Commission (CNSC) — the federal agency that monitors the safe operation of nuclear stations — now requires that all homes and businesses within 10 km of a nuclear power station receive a supply of potassium iodide (KI) pills. The pills have been available free of charge at select pharmacies, but will now be sent by mail due to increased safety standards.
- In the highly unlikely event of a nuclear accident, a potassium iodide (KI) pill is a key component to keeping you and your family safe. All homes and businesses within 10 km of nuclear facilities are encouraged to have on hand potassium iodide (KI) pills. Anyone within 50 km of nuclear facilities is welcome to order KI for delivery.
- **KI pills can be ordered through:**
- **<https://preparetobesafe.ca/order>**

Safety Moment

Planning Framework and Strategic Considerations

Process Overview

Allocations and Outcomes

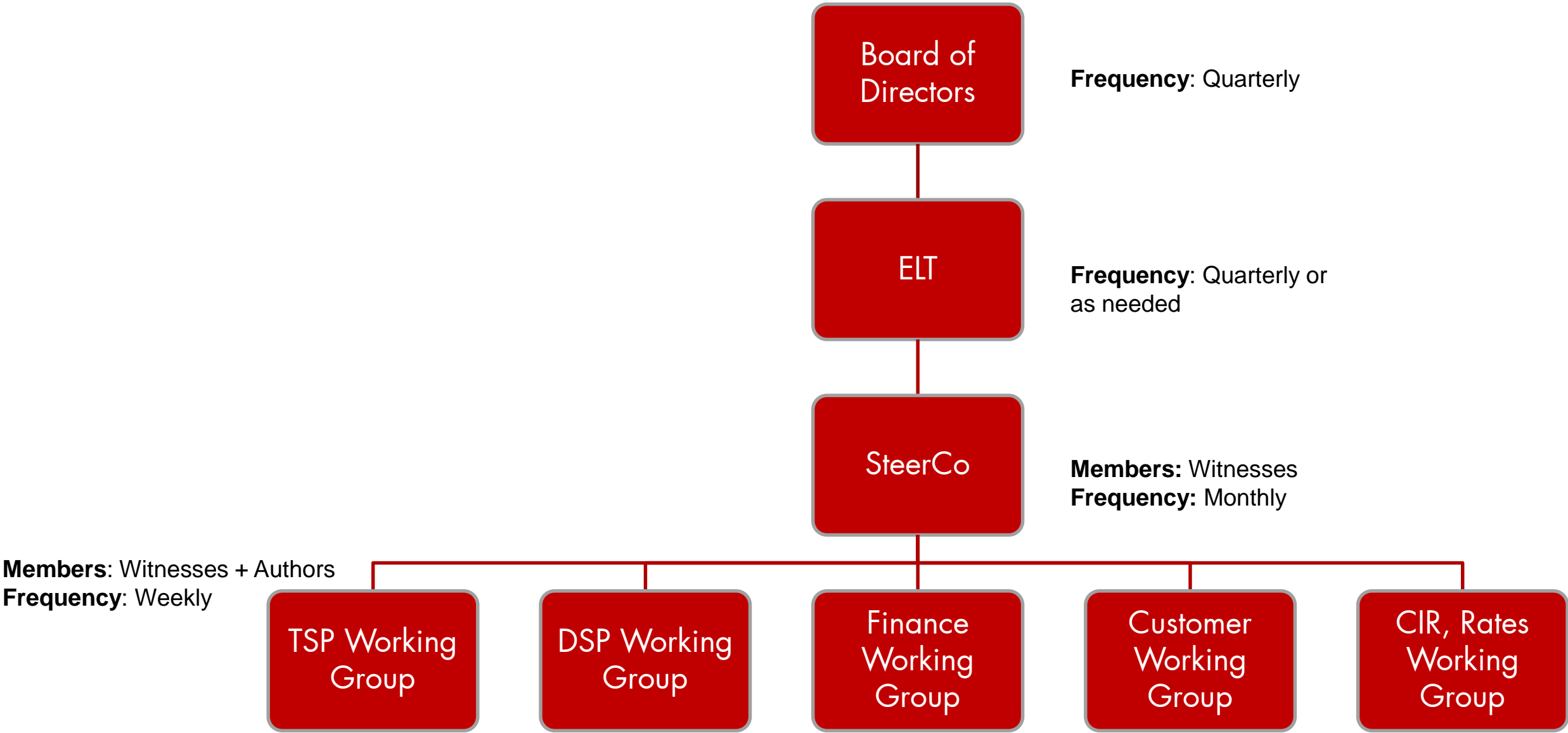
Strategic Finance Update

Workforce Planning Update

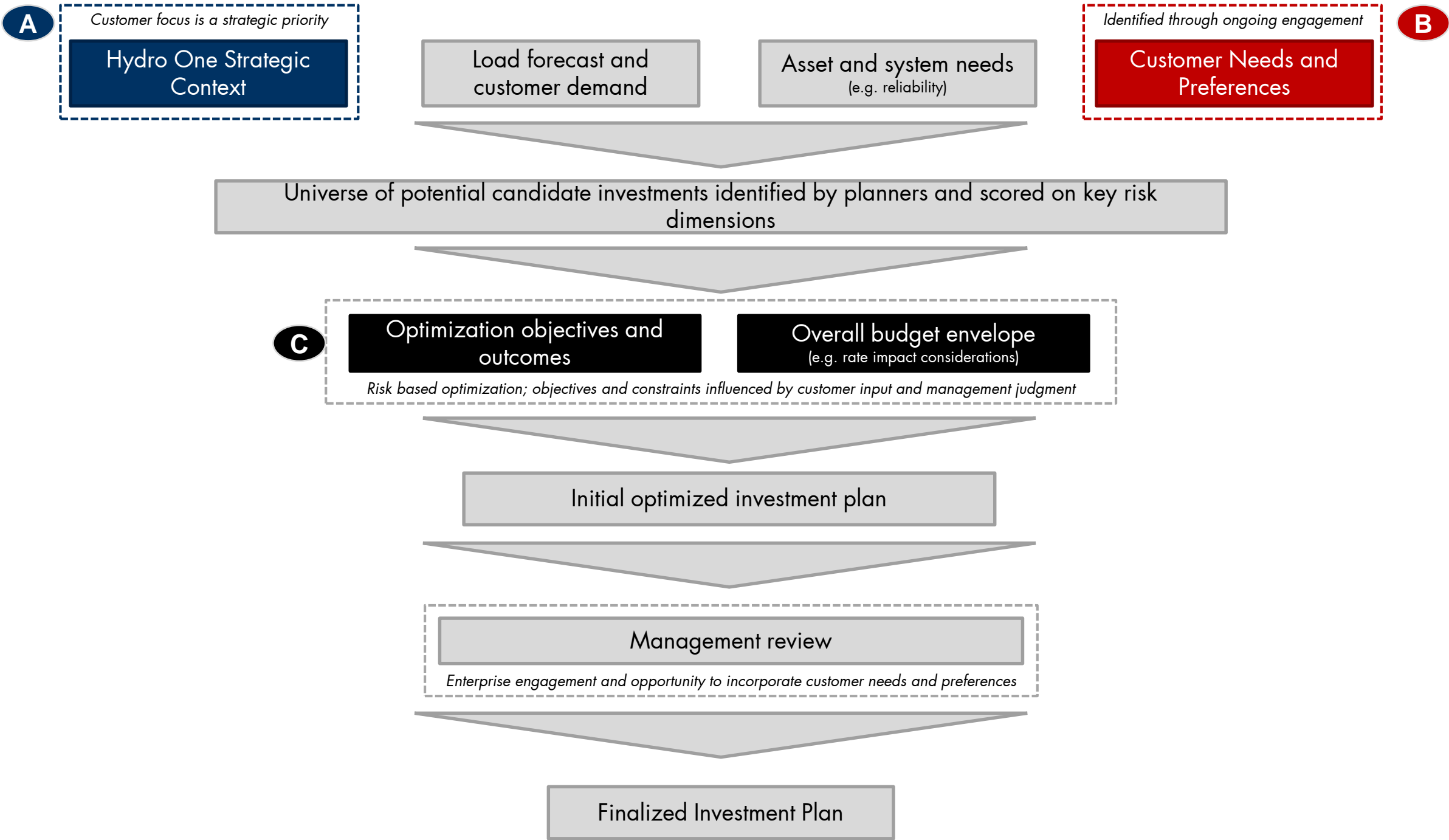
Joint Rate Application – Timelines to Filing



Joint Rate Application – Governance Structure



Hydro One's investment planning process incorporates customer and stakeholder feedback



A Consistent with the corporate strategy, the investment plan funds the expenditures required to deliver on business objectives

Strategic Priorities:



- We will **plan, design, and build a grid for the future** that is reliable, resilient, and flexible; doing it in a way that delivers value for customers; and balances our environmental responsibility.



- We will be **the safest and most efficient utility** through transformation and improvements to our culture; enabling field operations to drive productivity and reliability; optimizing corporate support; and driving efficient capital delivery.



- We will **advocate for our customers and help them make informed decisions** based on their unique needs, improving customer experience, providing customers with actionable insights, and access to third-party products and services.



- We will **be a trusted partner**, building and strengthening trust-based partnerships with government and industry stakeholders, Indigenous peoples, and other customers to continue to provide essential services to Ontarians.



- We will **innovate and grow** the business to provide value for our customers, shareholders, and other stakeholders through responsible and prudent investment and pursuit of innovative opportunities that present value.



Hydro One's Strategic Priorities are supported by a focused approach and key initiatives to assist in driving meaningful progress


Strategic priorities

1
Plan, design and build a grid for the future


2
Be the safest and most efficient utility


3
Be a trusted partner


4
Advocate for our customers and help them make informed decisions


5
Innovate and grow the business


Focus areas

A Plan, design and build a reliable grid for the future to prevent outages	A Transform and improve our safety culture	A Grow relationships with government and industry partners	A Make it easier to do business with Hydro One	A Responsibly invest in rate base assets
B Increase grid resiliency, both physical and cyber, to quickly restore from events	B Enable field operations to drive productivity and reliability	B Build strong partnerships with Indigenous peoples	B Help customers make informed decisions by leveraging our position as energy experts	B Pursue new regulated business opportunities
C Improve grid flexibility to integrate and operate DERs enabling customer choice	C Optimize corporate support	C Build trust with our customers, communities and all Ontarians	C Expand access to energy offerings to become provider of choice to customers	C Pursue innovative unregulated business opportunities
D Lower our environmental footprint	D Drive efficient capital delivery			
E Deliver value through great planning (capital & O&M)				

Enablers

1
A people strategy that inspires employees and prepares the right workforce for evolving needs

2
A regulatory strategy and a regulatory environment to support our strategic vision

3
The use of digital tools, technology, and process improvement to enable our workforce and customers

Regulatory Focus – the plan is aligned with the objectives of the OEB’s regulatory framework

OEB Objectives	Business Values	Priorities and Outcomes
Customer Focus	Customer Satisfaction	<ul style="list-style-type: none"> Improve and maintain current levels of customer satisfaction Build trust with our customers, communities and all Ontarians
	Customer Focus	<ul style="list-style-type: none"> Deliver industry-leading customer service, in response to identified customer preferences Make it easier to do business with Hydro One
Operational Effectiveness	Cost Control	<ul style="list-style-type: none"> Focus on continuous improvement to enhance efficiency, productivity, and reliability Deliver value through great planning Enable field operations to drive productivity and reliability
	Safety	<ul style="list-style-type: none"> Maintain top-tier safety performance and eliminate serious injuries Transform and improve our safety culture
	System Reliability	<ul style="list-style-type: none"> Maintain top tier Tx reliability performance and improve long-term Tx and Dx reliability Plan, design and build a reliable grid for the future to prevent outages Increase grid resiliency, both physical and cyber, to quickly restore from events Improve grid flexibility to integrate and operate DERs enabling customer choice
Public Policy Responsiveness	Public Policy Responsiveness	<ul style="list-style-type: none"> Deliver on obligations mandated by government through legislation and regulatory requirements Grow relationships with government and industry partners
	Environment	<ul style="list-style-type: none"> Lower our environmental footprint through greenhouse gas (GHG) reduction
Financial Performance	Financial Performance	<ul style="list-style-type: none"> Responsible investment in rate base assets to ensure the safety and reliability of the grid Manageable and stable rate impacts over the course of the planning period Drive efficient capital delivery

Consistent key themes should inform the identification of outcomes that are meaningful to our customers

- Much of Hydro One's system was built in the 1950s and we need to replace, repair or upgrade equipment in almost every community across the province.
- Hydro One's infrastructure helps to build strong and prosperous communities. Investing in safe, reliable power is essential to boosting the economy.
- We know every dollar we spend comes at a cost to our customers and the people of Ontario, which is why we are focusing on essential investments to keep the system safe, the power on and costs as low as possible. We will invest each dollar in a way that will have the greatest benefit to customers and communities.
- Investments in the system today will help offset far more costly repair, maintenance and emergency work in the future.

Customer Engagement

- In preparation for the upcoming Joint Rate Application, residential, small business, commercial and industrial, large Dx accounts, Tx accounts, First Nations and general population customers were engaged on a preliminary basis and will be re-engaged to provide feedback on our plan
- Minimal variation across geographic centres
- Through ongoing customer contact, new individual customer needs and preferences may be identified, which should inform the identification and development of candidate investments
- In general, customers supported certain investments but also prioritized reasonable rates. Our investments must balance the service our customers prefer with rates they support

Transmission

- Price, reliability and safety are top priorities
- Reducing the number and length of outages during extreme weather events and reducing the number of day-to-day outages are top reliability outcomes
- Maintaining or increasing the current level of investment in asset renewal is preferred
- Proactive reliability investment is supported
- Power quality improvements are valued

Distribution

- Price, reliability, safety and customer service are top priorities
- Reducing the number and length of outages during extreme weather events and reducing the number of day-to-day outage are top reliability outcomes
- Technologies to reduce costs, improve reliability and help customers manage their usage are priorities
- A proactive approach to asset renewal is preferred
- Proactive system hardening is supported
- Reliability improvements are valued

Safety Moment
Planning Framework and Strategic Considerations

Process Overview

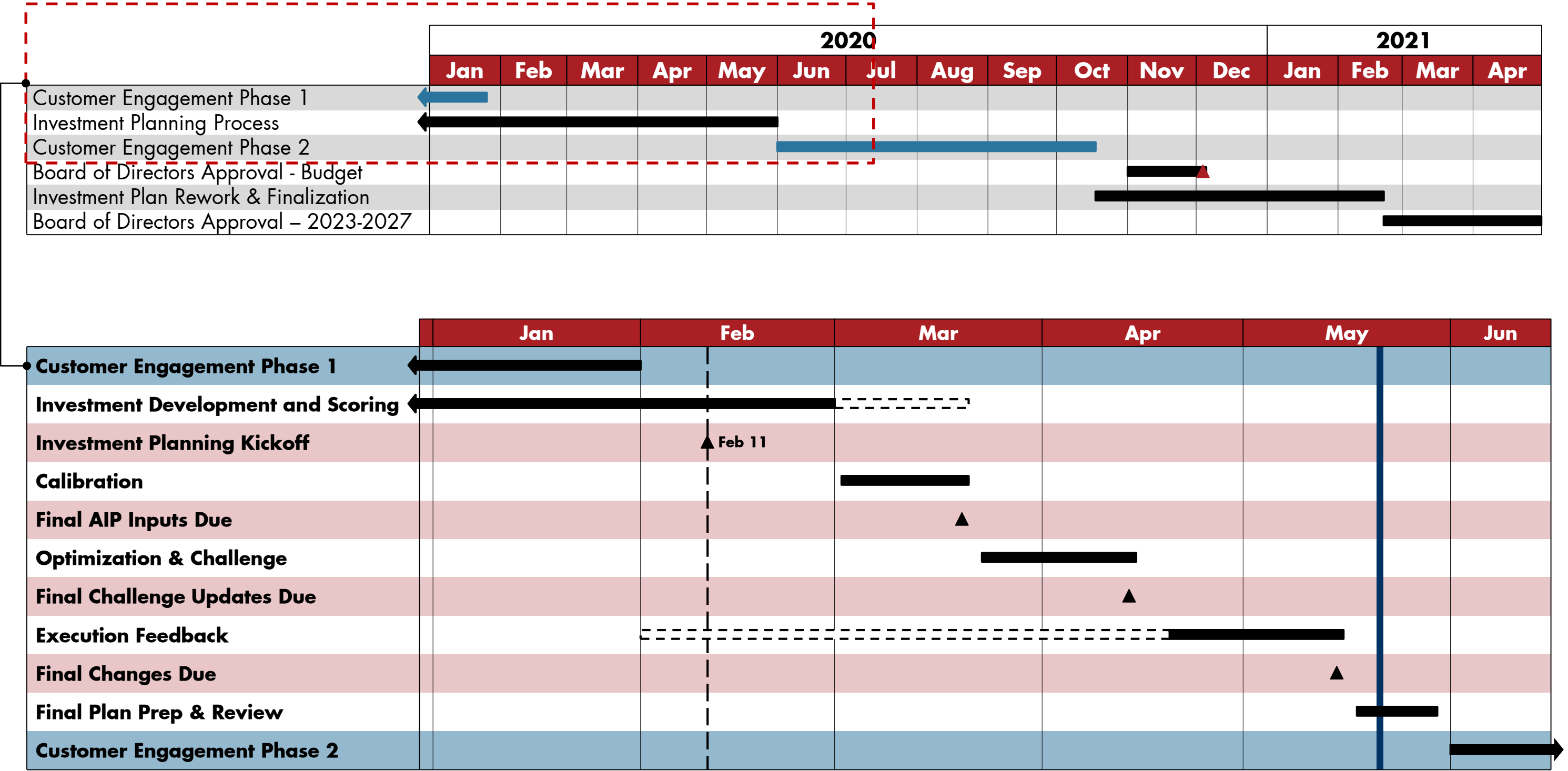
Allocations and Outcomes
Strategic Finance Update
Workforce Planning Update

The investment planning process is a multi-step, enterprise wide process culminating in a seven-year investment plan



Stage	Description
<div>0</div> Investment Planning Context	Translation of high-level strategic objectives into initial financial requirements and strategic outcomes/metrics.
<div>1</div> Candidate Investment Development and Scoring	Develop investments to address strategic, customer or asset needs. Evaluating risk and flag considerations.
<div>2</div> Calibration	Comprehensive alignment on risk, investment efficiency, critical investment plan considerations and process to address corporate priorities.
<div>3</div> Optimization/ Challenge	Detailed review of the initial scenario results to prioritize investments in the investment plan based on risk scores and other considerations noting efficiencies, risks, asset need, and customer impacts. Align investment portfolio to multi-year envelope based on risk prioritization.
<div>4</div> Enterprise Engagement	Ensure alignment between Planning and Execution on investment needs, resource capabilities, and identified opportunities for trade-off discussions.
<div>5</div> Develop Final Plan	Final review and approval of the Investment Plan proposal to ensure alignment of plan with corporate priorities, including clarity on outcomes, risk, customer feedback and strategic direction.

The Investment Planning Process will be informed by Phase 1 Customer Engagement and resulting outcome will be presented to customers in Phase 2



- Safety Moment
- Planning Framework and Strategic Considerations
- Process Overview

Allocations and Outcomes

- Strategic Finance Update
- Workforce Planning Update

Planning in parallel with active/recently approved OEB applications requires a consistent approach to maintain regulatory consistency and credibility

Transmission

- Investment costs, schedule and risk assessments to be materially consistent with the *Filed* application
- Total plan will be held consistent with annual capital/OM&A/in-service addition envelopes included in the *Filed* application for the 2021-2022 period
- Reprioritization and redirection of plans to incorporate updated assumptions and rebalance the plan within the OEB proposed envelope
- Opportunity to identify, assess and optimize investment candidates beyond 2022, consistent with strategic priorities, customer needs and preferences and asset need
- Plans and pacing will be adjusted, as required, to reflect the OEB decision when received

Distribution

- Investment costs, schedule and risk assessments to be materially consistent with the *Draft Rate Order plan*
- Total plan will be held consistent with annual capital/OM&A/in-service envelopes included in the *Draft Rate Order plan* for the 2021-22 period
- Reprioritization and redirection of plans to incorporate updated assumptions and rebalance the plan within the OEB approved envelope
- Opportunity to identify, assess and optimize investment candidates beyond 2022, consistent with strategic priorities, customer needs and preferences and asset need

OEB Status

- Evidence Submitted: March 2019
- OEB Decision: TBD
- Rate period: 2020-22
- Tx System Plan: 2020 - 2024

OEB Status

- OEB Decision: March 2019
- Approval of DRO: June 2019
- Rate period: 2018-22
- Dx System Plan: 2018 - 2022

OEB Findings

- Establish and communicate a clear relationship between proposed capital plans and system reliability using measurable outcomes; the OEB believes this is a prerequisite for customers to understand the magnitude of the impact and to provide meaningful, informed input.
- Focus on performance measures, establishing targets for each measure and each year which demonstrate continuous improvement.
- Consider OM&A options when developing candidate capital investments, as applicable.
- Articulate how the OEB-imposed reductions were accommodated in line with the OEB findings and explain any subsequent variances regarding scope, cost or schedule
- Identify major cost drivers of investments, including labor, materials, contracts and interest/overheads



DECISION AND ORDER

EB-2017-0049

HYDRO ONE NETWORKS INC.

Application for electricity distribution rates beginning January 1, 2018 until December 31, 2022

BEFORE: Ken Quesnelle
Presiding Member

Emad Elsayed
Member

Lynne Anderson
Member

March 7, 2019

Safety Moment

Planning Framework and Strategic Considerations

Process Overview

Allocations and Outcomes

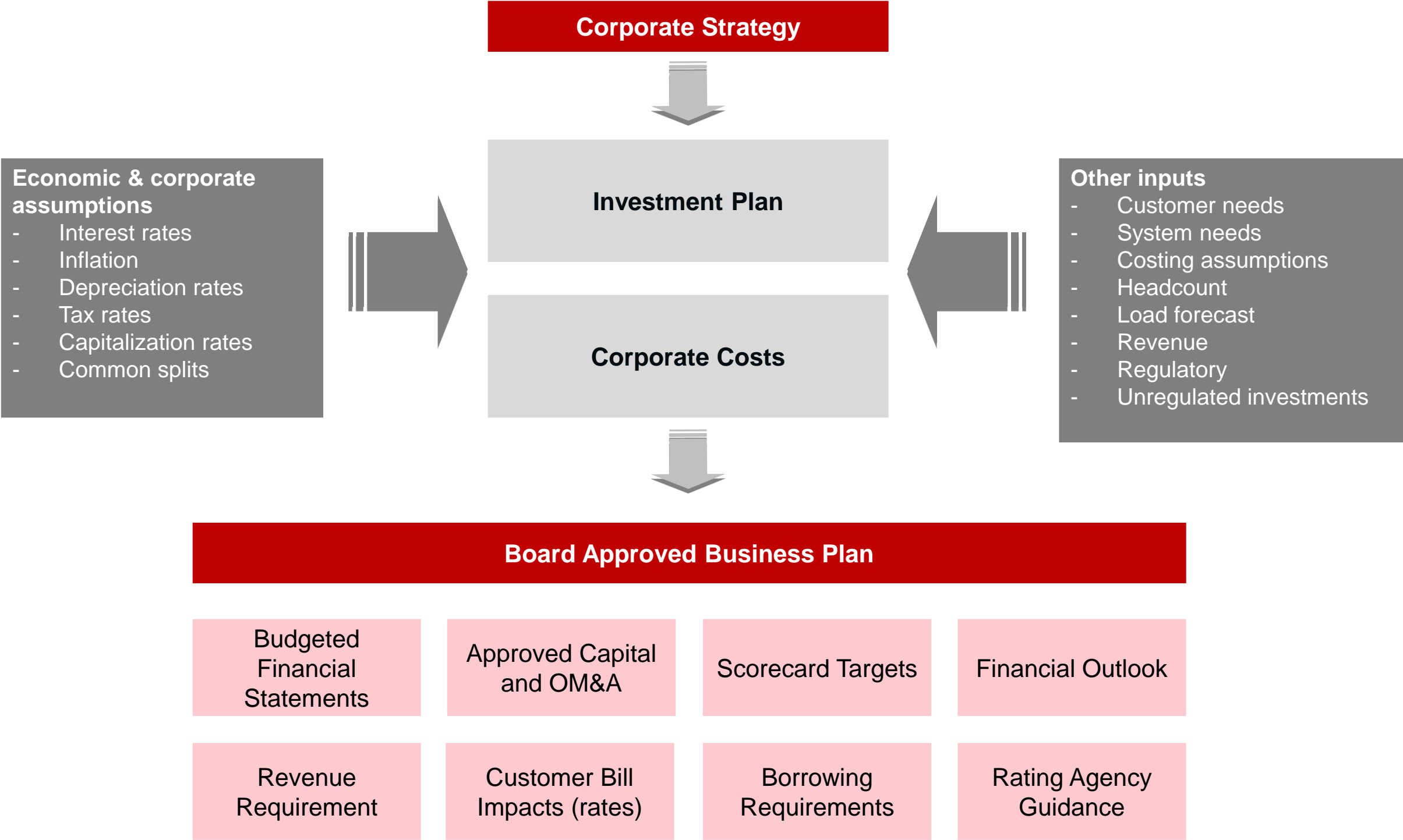
Strategic Finance Update

Workforce Planning Update

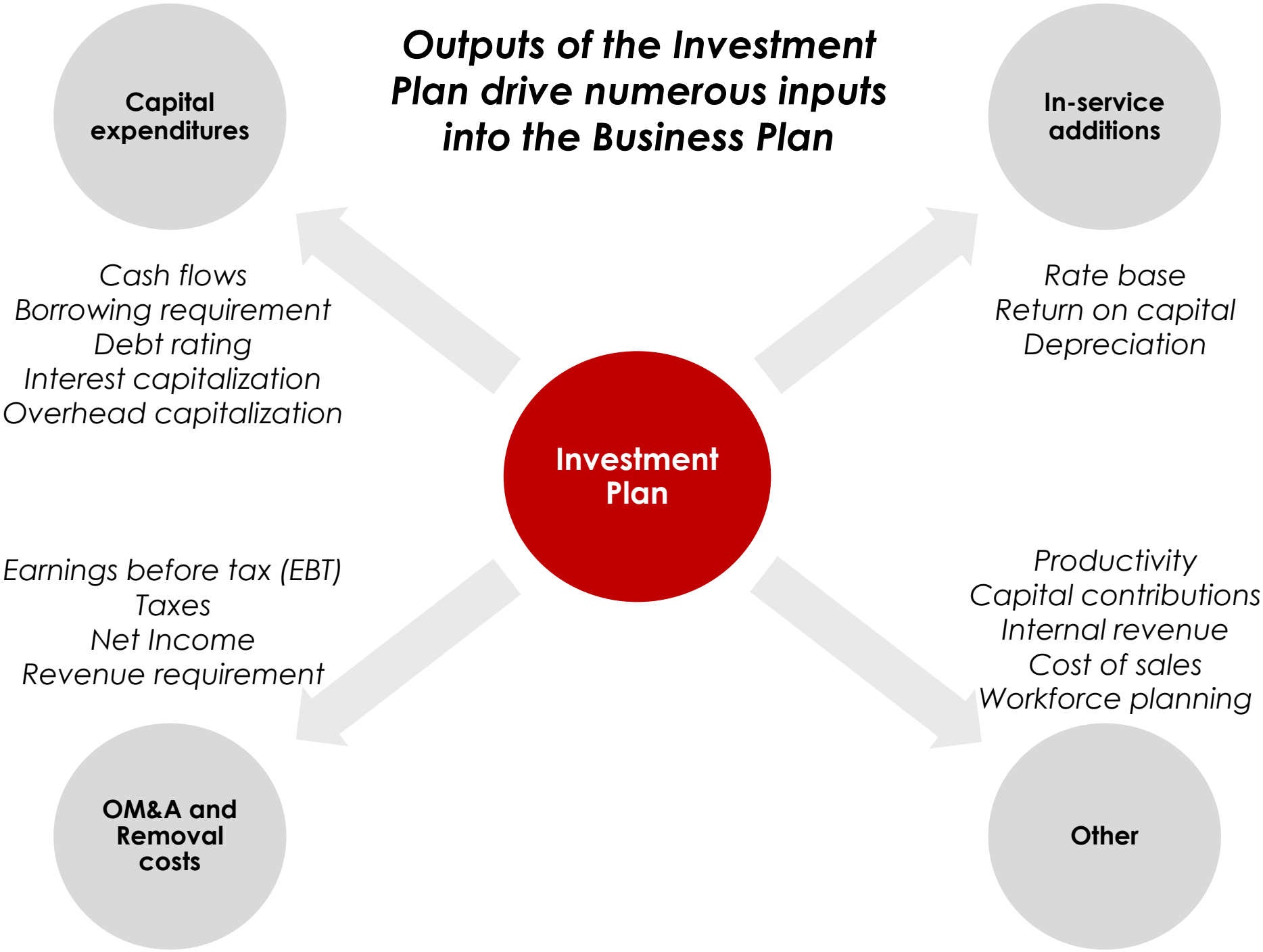
Business Plan – Key Messages

- Investment levels should be consistent with OEB filings, with consideration to incremental productivity savings
- 2023-27 investment levels will be informed by outcomes of the Customer Engagement process, among other things
- Material changes should be explained
- Build on the improvements made last year and leverage the established process to enhance the information for program planning, trending and workforce/resource planning
- Strategic Finance communicate any changes to the guidance provided today
- Lessons learned will help us optimize the business planning process this year

Business Plan Overview



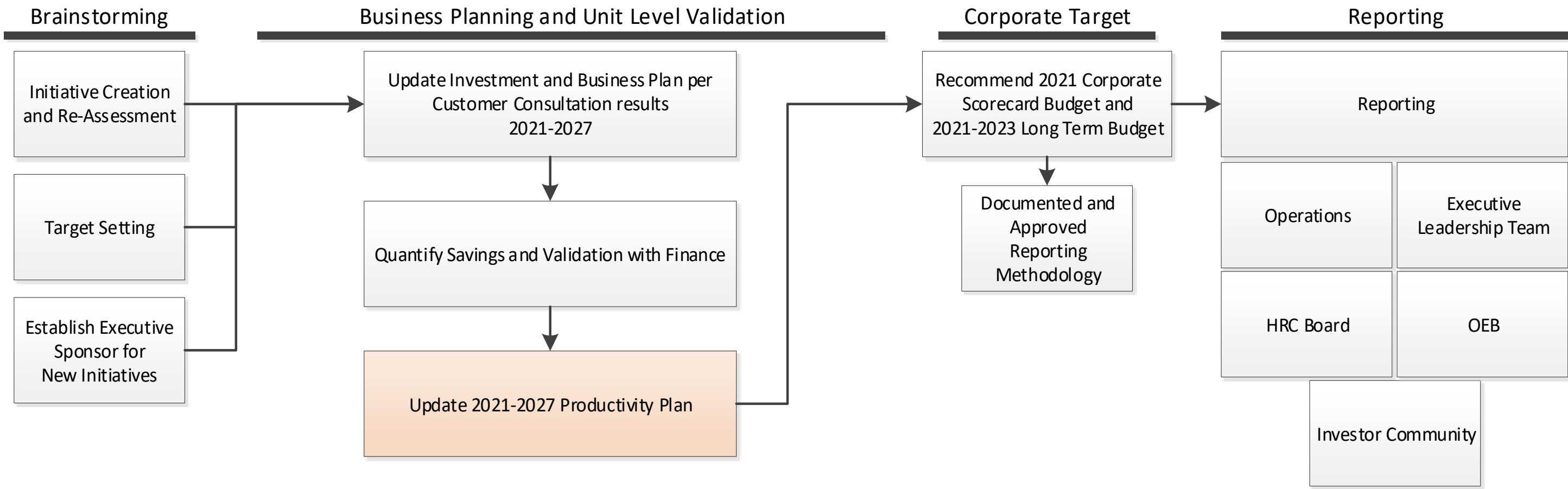
Inputs Driven by the Investment Plan



Productivity Planning

Productivity and continuous improvement will form a key message in Hydro One’s Business Plan. Productivity is communicated regularly to the board of directors, OEB and investor community.

Productivity savings are expected to be auditable and embedded into the underlying costing and plan assumptions.



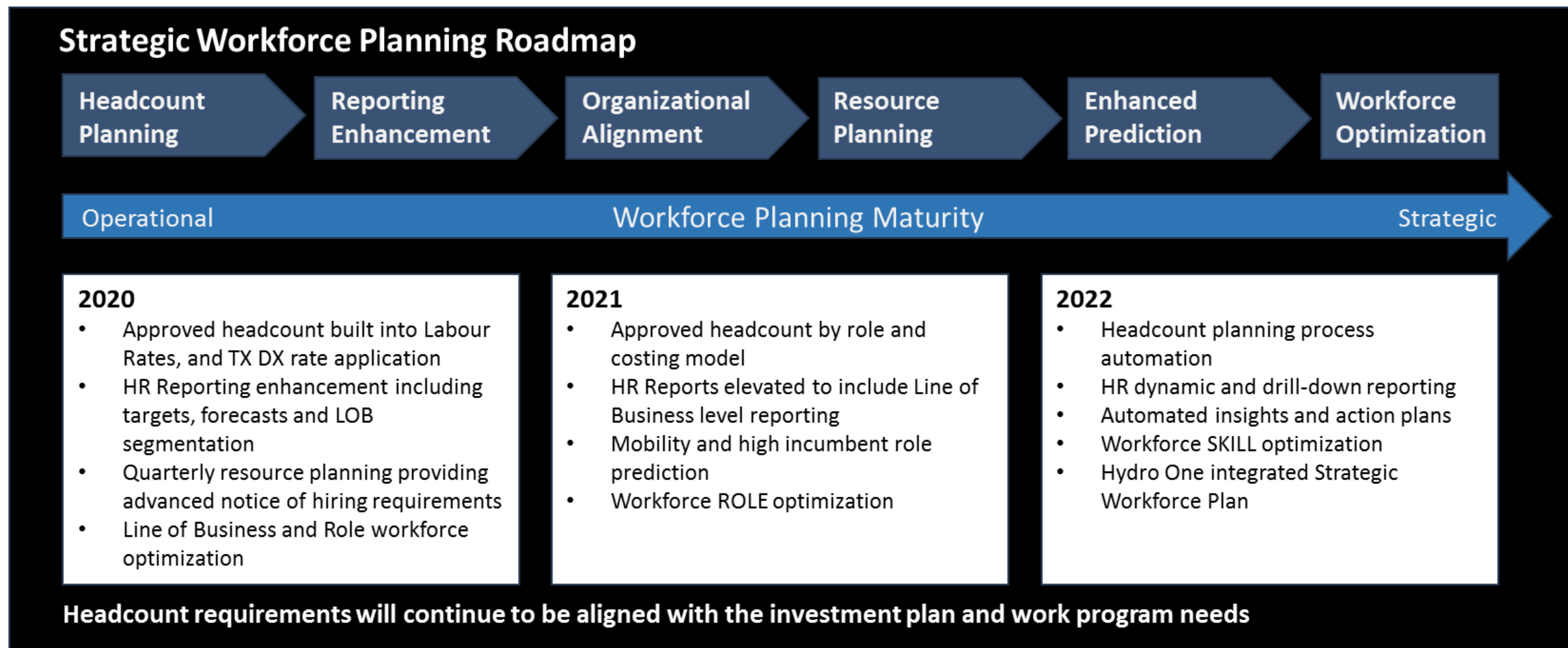
Productivity Stakeholder Engagement

- **All Employees:** Identify new cost saving initiatives and opportunities during plan creation. Present opportunities to Finance (For new initiatives, please contact Mike Malinowski and Michael Constantinescu).
- **Initiative Owners:** Ensure stakeholders are aware of your initiative and the associated planning assumptions required for embedding savings in the Investment Plan. Update your unit costs to reflect savings relative to baseline.
- **Planners:** Engage with the Initiative Owners and Service Providers to clarify new unit costs and expected savings to be built into the plan (units and rates).
- **Service Providers:** Engage with initiative owners and planners to ensure alignment in costing and execution.
- **Estimating:** Utilize updated material costing data.

- Safety Moment
- Planning Framework and Strategic Considerations
- Process Overview
- Allocations and Outcomes
- Strategic Finance Update
- Workforce Planning Update**

Workforce Roadmap & Vision

- 3-Year plan to build towards Strategic Workforce Planning
- Planning not just headcount but for skills of the future
- 2020-2021 will be critical to form the foundation



2020 Next Steps



Tracking and governance of 2020 FTE budget, forecast and actuals



Earlier timing in gathering FTE feedback from LOBs towards 2021 plan



Stronger alignment of FTE plans to work program requirements leveraging learning/data from previous 2 cycles

Filed: 2021-11-29
EB-2021-0110
Exhibit I-22-A-SEC-7
Attachment 2
Page 1 of 35



JOINT RATE FILING

Customer Engagement Results (Phase I)

SAFETY MOMENT | CUSTOMER MOMENT

JOINT RATE FILING APPLICATION



JOINT RATE FILING APPLICATION

Components of an Application



CUSTOMER ENGAGEMENT

Engaging customers in a meaningful dialogue on electricity is a challenge.

There is a challenge in ensuring the customer feedback collected is informed feedback that reflects customer judgement rather than simply their first impressions. Thus **customer education** is a key component of every consultation.

There is a challenge in ensuring that **everyone who wants to have a say can participate**, while also making sure that we hear from all types of customers.

CUSTOMER ENGAGEMENT

PHASE I: Customer Needs and Preferences (September 2019 – January 2020)

Objective: Provide planners and application architects with a summary of customer needs, preferences, and high level priorities between utility investment and cost.

Activities: Hydro One reached out to a subset of its Dx and Tx customers through a wide range of activities, including: Focus groups, One-on-one interviews, Telephone surveys, Online workbooks

PHASE II: Trade-offs and Refinement (June – September 2020)

Objective: Collect customer input on trade-offs to refine draft investment plans before submitting rate application to OEB.

Activities: Hydro One is going to reach out to all of its Dx and Tx customers, using an online workbook as the core tool for collecting customer feedback on its draft plan

CUSTOMER FEEDBACK (PHASE I)

The online workbook is the core tool of the engagement, and the results presented here reflect the feedback gathered through different versions of the online workbook, which was tailored for different customer types.

Dx Customers	Sample size
Residential	N=1,338
Small business	N=200
C&I	N=225
LDA	N=8
First Nations residential customers	N=300

Tx Customers	Sample size
Residential	N=1,800
Small business	N=690
C&I	N=225
LDA	N=8
LTX	N=16
First Nations residential customers	N=300

INVESTMENT PLANNING

How to incorporate customer feedback?

1. We have an opportunity to continue to **improve our core transmission and distribution business**.
2. We have made significant improvements in safety, reliability, productivity and customer satisfaction, but **our focus should remain on operational excellence** to optimize the customer experience.
3. We will analyze and **address outliers** for both planned and unplanned interruptions, including through **traditional solutions and non-wires alternatives**.
4. We will address the **worst performing feeders** and **integrate climate change considerations** into planning and infrastructure decisions through the development of consistent engineering standards for improved hardening to meet regulatory and adaptation requirements.
5. We will work with local leaders and customers to highlight our commitment **to supporting economic development** in Ontario.
6. We will continue to make **prudent and reasonable investments in the system**.

The results of Phase 1 are directional in nature, reflecting general customer needs and preferences. As part of Phase 2, we will be returning to customers with 3 scenarios for both Tx and Dx, with discrete program level trade-offs based on developed plans.





CUSTOMER ENGAGEMENT

Customer Needs and Outcome Preferences

RESULTS: CUSTOMER NEEDS

Is there anything in particular you would like Hydro One to do to improve its services to you? [OPEN]

Most customers don't list any unfulfilled needs.

Among those who do, the top two are:

- Improve reliability and power quality
- Lower rates, no increases

How to implement what customers want:

- Prevent, minimize and restore power outages to continue to provide safe and reliable power to customers.
- Manage costs including through technology, process improvements, and embedding productivity and efficiencies into the business

RESULTS: OUTCOME PREFERENCES

Thinking about the things Hydro One should be focusing on, please rank your top priorities:

- Delivering electricity at reasonable rates
- Ensuring reliable electrical service
- Ensuring the safety of electricity infrastructure
- Providing quality customer service

How to implement what customers want:

- Manage costs including through technology, process improvements, and embedding productivity and efficiencies into the business
- Prevent, minimize and restore power outages to continue to provide safe and reliable power to customers.
- Optimize the customer experience using digital capabilities, and deploying advanced analytics for customer care.

RESULTS: RELIABILITY OUTCOMES

Among the following reliability outcomes, please rank your top three priorities:

- Reducing the **length** of time to restore power during **extreme weather events**
- Reducing the **number** of outages during **extreme weather events**
- Reducing overall **number** of **day-to-day outages**

How to implement what customers want:

- Improve the grid's ability to withstand and recover from extreme weather events.
- Improve restoration times through increased coordination, enhanced response, and reduced human error.
- Prevent, minimize and restore power outages to continue to provide safe and reliable power to customers.

RESULTS: TECHNOLOGY INVESTMENTS

What technology investments do customers prioritize?

- New technology that can help Hydro One find efficiencies and reduce customer costs
- New technology that would reduce the number and length of outages
- New technology that can help customers better manage their electricity usage

How to implement what customers want:

- Manage costs including through technology, process improvements, and embedding productivity and efficiencies into the business
- Leverage technology and use advanced tools to ensure efficient and prudent investment to address critical needs.
- Optimize the customer experience using digital capabilities, technology and advanced tools in operations for customer care.

DX INVESTMENT TRADE-OFFS



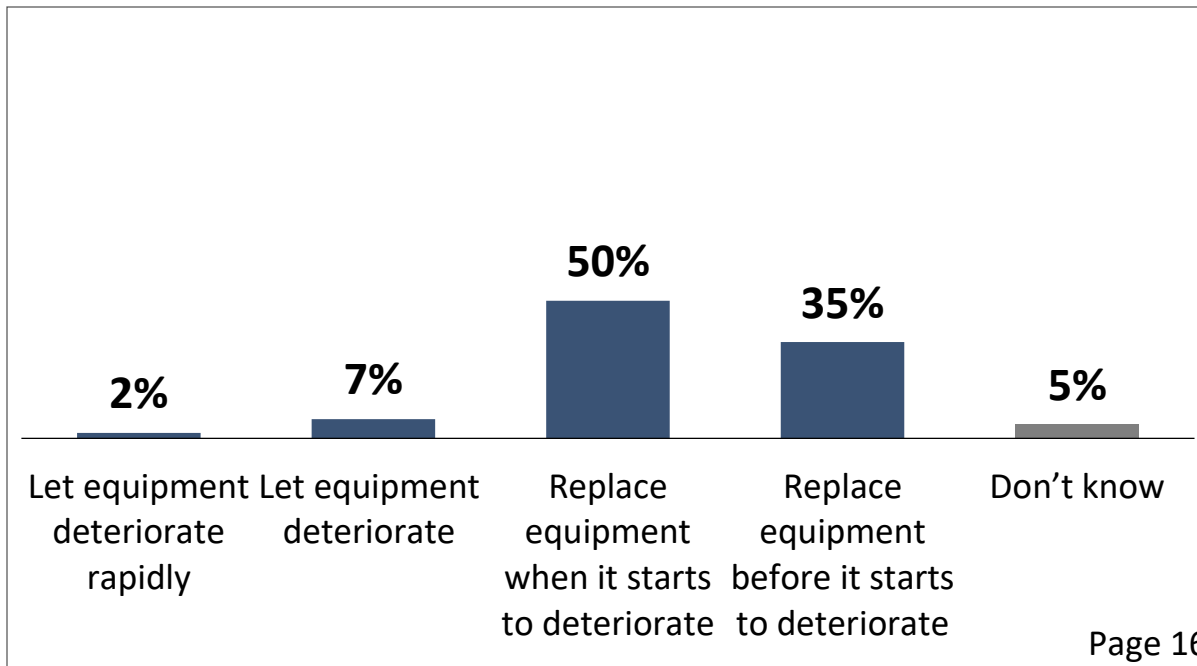
KEEPING PACE WITH DETERIORATING DX INFRASTRUCTURE

Which of the following statements best represents your point of view regarding Hydro One's approach to dealing with aging infrastructure?

- **Let Equipment Deteriorate Rapidly:** Hydro One should **decrease its current level of investment** in aging equipment to keep annual rate increases for new equipment **[under a dollar]** on my monthly bill, even if it means the share of aging equipment will grow rapidly and future rate increases will be very steep.
- **Let Equipment Deteriorate:** Hydro One should **maintain its current level of investment** in aging infrastructure to keep annual rate increases for new equipment **[under \$1.50]** on my monthly bill, even if it means equipment will age faster than it is replaced (but less quickly than in the scenario above) and future rate increases will be steep.
- **Replace Equipment When It Starts to Deteriorate:** Hydro One should **increase its current level of investment** in aging infrastructure to keep annual rate increases for new equipment **[under \$2]** on my monthly bill, to keep pace with aging equipment and enable smoother rate increases in the future.
- **Replace Equipment Before It Starts to Deteriorate:** Hydro One should **increase its current level of investment** in aging equipment to keep annual rate increases for new equipment **[under \$2.50]** on my monthly bill, which will improve the average age of equipment and enable stable rate increases in the future.
- Don't know

KEEPING PACE WITH DETERIORATING DX INFRASTRUCTURE

A clear majority of customers prefers a more proactive approach to replacing aging infrastructure, when or before it starts to deteriorate.



How to implement what customers want:

- As the grid ages and condition deteriorates, it is critical that we ensure renewal spending is prudent and efficient for customers and communities, and that we **increase our focus on deteriorated and at risk assets.**

Potential examples:

- Condition based re-investment / renewal
- Data and analytics to provide insights and improve decision making

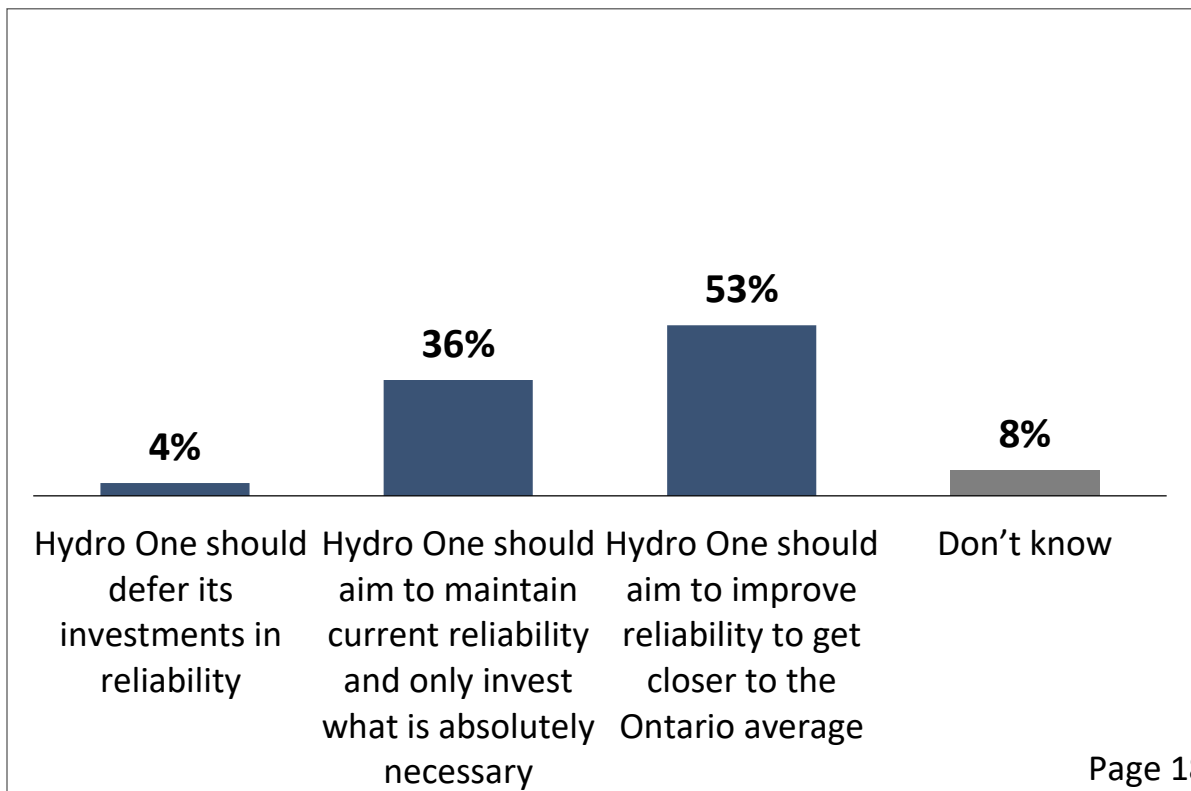
ENSURING DAY-TO-DAY RELIABILITY

Which of the following statements best represents your point of view regarding Hydro One's approach to ensuring day-to-day reliability?

- Hydro One should defer its investments in reliability to keep costs down, even if this could lead to more or longer power outages in the future.
- Hydro One should aim to maintain current reliability and only invest what is absolutely necessary to maintain the current level of reliability, even if that increases my monthly bill by **less than a dollar** each year.
- Hydro One should aim to improve reliability to get closer to the Ontario average, even if that increases my monthly bill by **more than a dollar** each year.
- Don't know

ENSURING DAY-TO-DAY RELIABILITY

Most customers want Hydro One to invest in reliability but are divided over the level of investment—between maintaining and improving.



How to implement what customers want:

- Providing safe and reliable power is a top priority; we must **prevent service interruptions during 'blue sky' weather**, and when such interruptions must occur, they should be brief.

Potential examples:

- OCP
- System renewal
- Non-Wires Alternatives (*Backup generation, DERs, Batteries*)
- Reconfigurations (*Ties and loops, Undergrounding, Hendrix Cables, Relocations*)
- Data and analytics / data collection
- Bundling to reduce planned outages

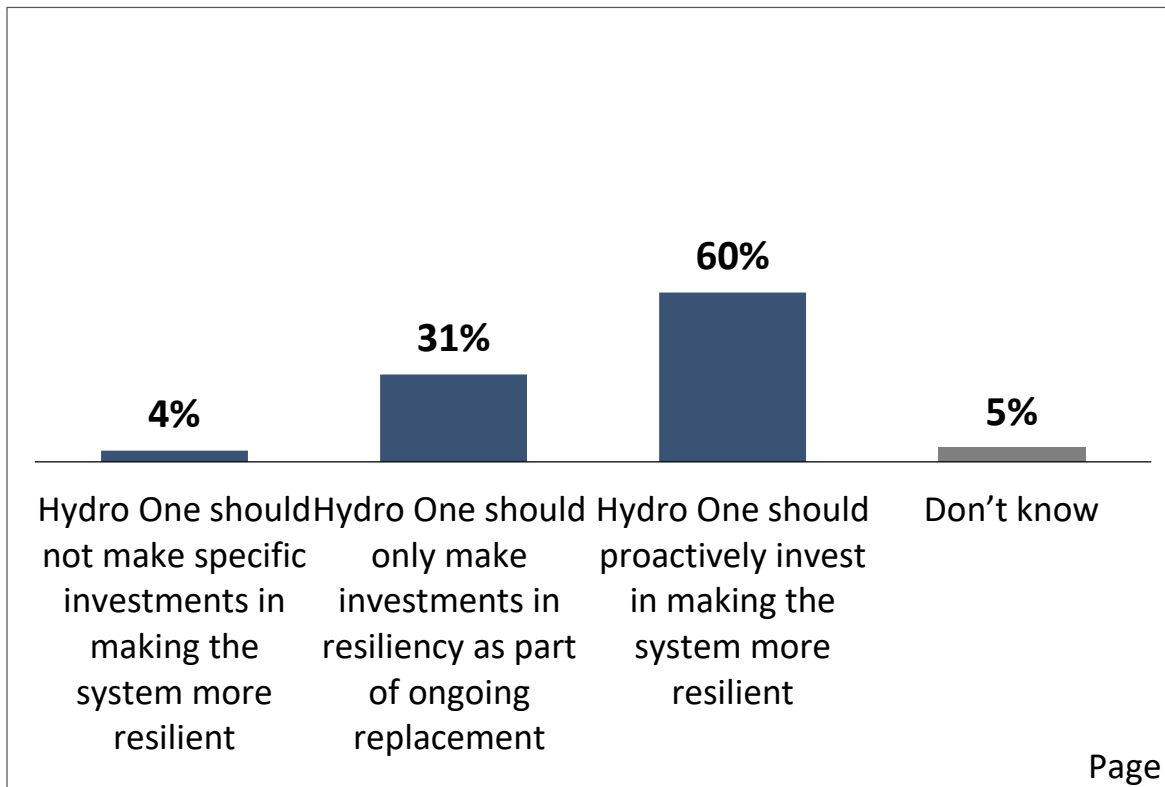
RESPONDING TO SEVERE WEATHER

Which of the following statements best represents your point of view?

- In order to keep rates down, Hydro One should not make specific investments in making the system more resilient to severe weather, even if that means no improvements or potential increases in the length and number of outages caused by severe weather.
- Hydro One should only invest in projects to make the system more resilient to severe weather as part of the ongoing replacement of old or failing equipment, but not more, even if that increases my monthly bill by less than 25 cents each year.
- Hydro One should proactively invest in making the system more resilient in order to reduce the length and number of outages caused by severe weather, even if that increases my monthly bill by less than 50 cents each year.
- Don't know

RESPONDING TO SEVERE WEATHER

The majority of customers supports investments in hardening the system, either as part of ongoing system renewal or as proactive investments.



How to implement what customers want:

- Beyond reliability, we must prepare for future grid resiliency by designing and implementing solutions and functionality to **improve “withstand-capability” and restoration times following extreme natural events.**

Potential examples:

- Non-wires alternatives (centralized / grid-edge batteries, DER for islanded (microgrid) operations, backup generation)
- Standards (Hardening, mechanically fused cross-arms)
- Reconfigurations (Ties and loops, Undergrounding, Hendrix Cables, Relocations)
- Telecom upgrades (AMI 2.0)
- Modernization (Automation, sectionalization and sensors)
- Staging and facility/crew optimization
- Data and analytics
- Customer Communication / Technology

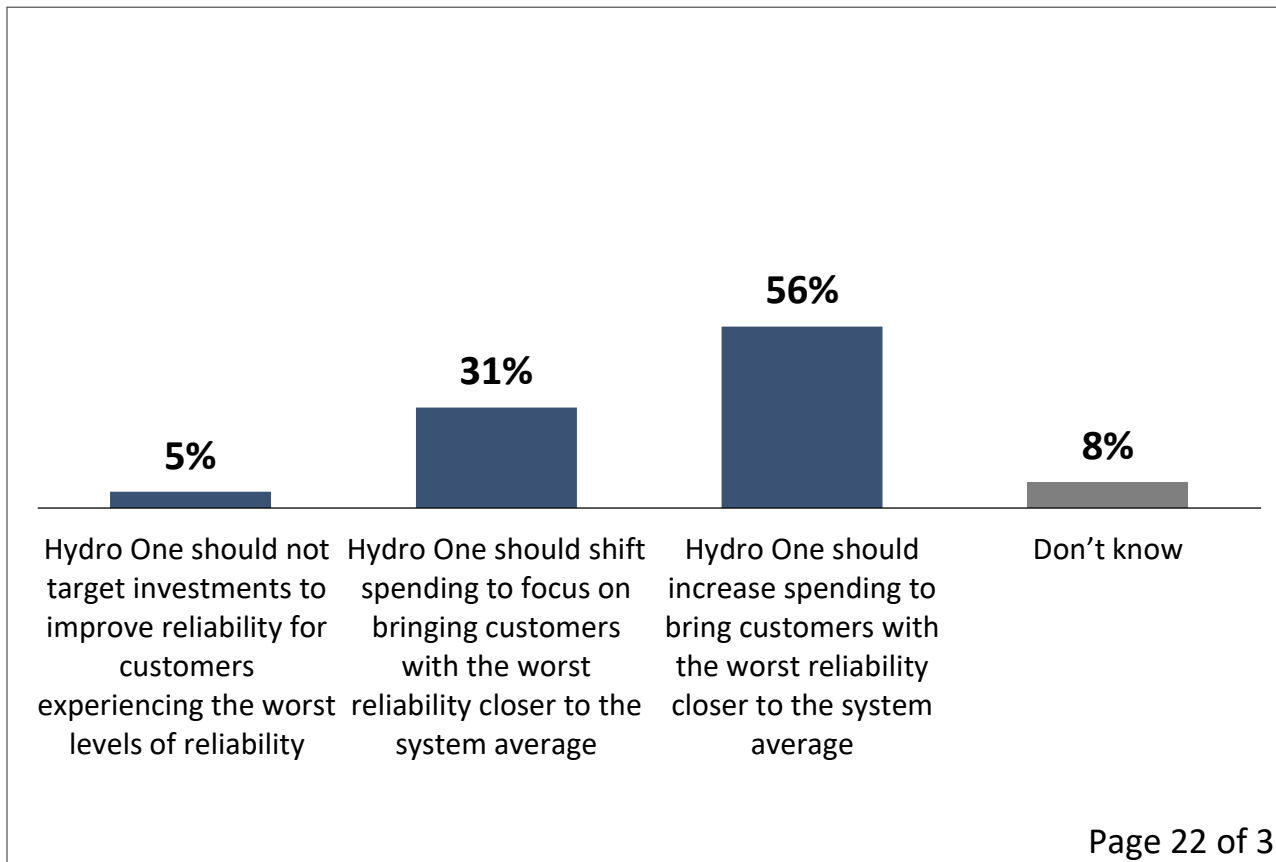
HELPING CUSTOMERS WITH POOR RELIABILITY

Which of the following statements best represents your point of view?

- Hydro One should not target investments to improve reliability for customers experiencing the worst levels of reliability in order to keep costs down, even if that leaves some with worse reliability than others.
- Hydro One should **shift spending** to focus on bringing customers with the worst reliability closer to the system average without raising prices, even if that means that reliability may go down for customers whose reliability is currently average or above.
- Hydro One should **increase spending** to bring customers with the worst reliability closer to the system average, even if that increases my monthly bill by **less than 25 cents** each year.
- Don't know

HELPING CUSTOMERS WITH POOR RELIABILITY

Almost all customers want to help those with poor reliability, either by shifting or increasing spending.



How to implement what customers want:

- A small number of facilities drive a significant proportion of poor reliability performance or are significant outliers; **addressing these facilities** should have a substantial impact on service reliability for customers

Potential examples:

- Worst Performing Feeder Modernization
- Non-wires alternatives (centralized / grid-edge batteries, DER for islanded (microgrid) operations, backup generation)

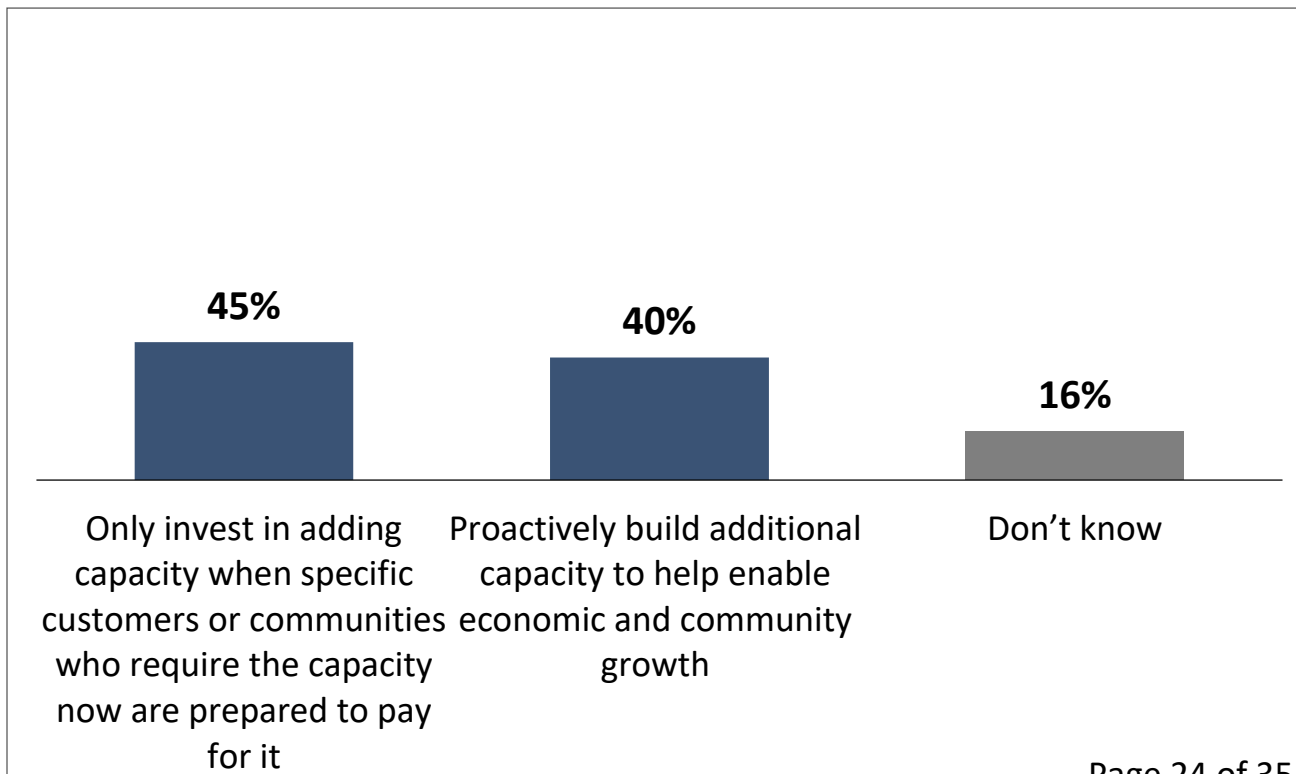
ENABLING ECONOMIC GROWTH

Which of the following statements best represents your point of view?

- Hydro One should only invest in adding capacity when specific customers or communities who require the capacity now are prepared to pay for it.
- Where a local community asks for it, Hydro One should proactively build additional capacity to help enable economic and community growth based on a forecast of the area's future requirements, even if these investments increase my monthly electricity bill by **about 50 cents** each year.
- Don't know

ENABLING ECONOMIC GROWTH

Customers are divided over additional spending on building capacity to enable economic growth.



How to implement what customers want:

- We will continue to engage with communities to identify **investment opportunities to support economic development in Ontario** and will use a rigorous process to consider whether and when to proactively invest in this area

Potential examples:

- Capacity upgrades
- System Enhancements
- New Facilities

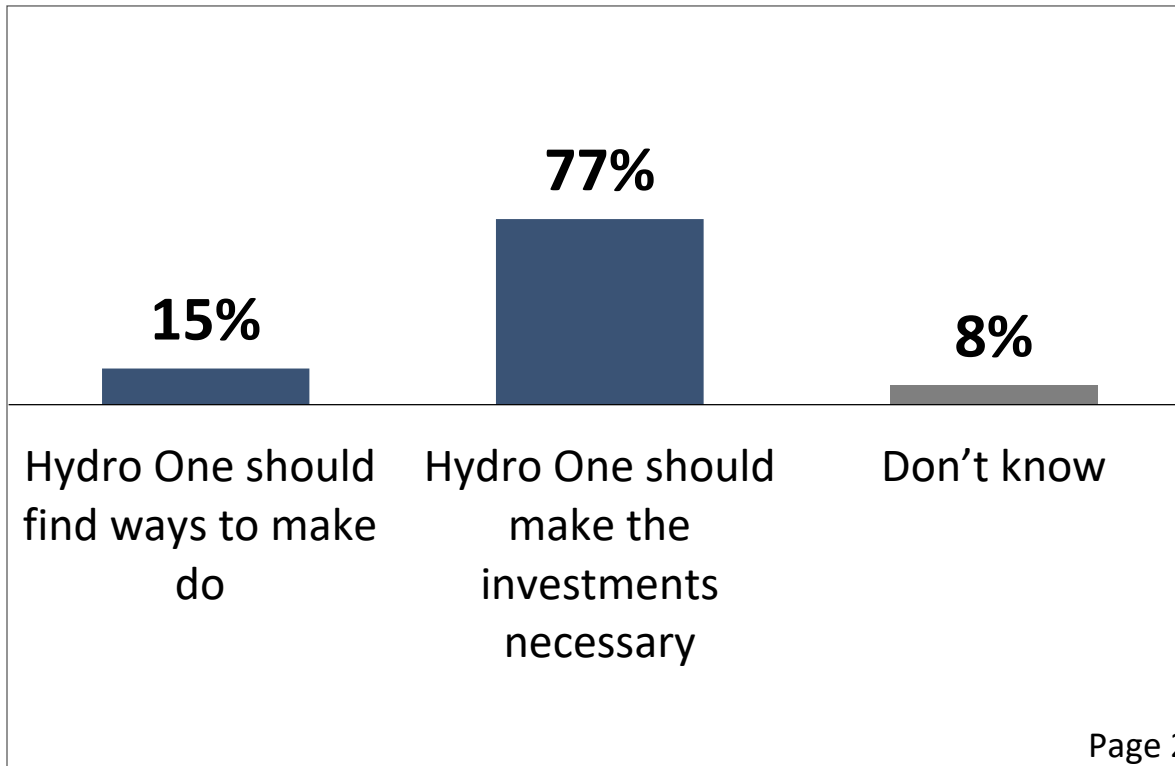
KEEPING HYDRO ONE'S BUSINESS RUNNING

Which of the following statements best represents your point of view?

- Hydro One should find ways to make do with the facilities, equipment, vehicles and IT and computer systems it already has and only replace the equipment with the most urgent needs, even if that means increasing risk to safety, reliability, and security.
- Hydro One should make the investments necessary to ensure its staff will have access to equipment of the same standard as similar sized businesses.
- Don't know

KEEPING HYDRO ONE'S BUSINESS RUNNING

Most customers want Hydro One to make investments necessary to keep the business running safely and reliably.



How to implement what customers want:

- We will improve operations, enhance efficiency, and reduce administrative efforts through **cost-effective and necessary investments in facilities, digital tools and technology.**

Potential examples:

- Facilities
- Technology
- Fleet
- Security

TX INVESTMENT TRADE-OFFS



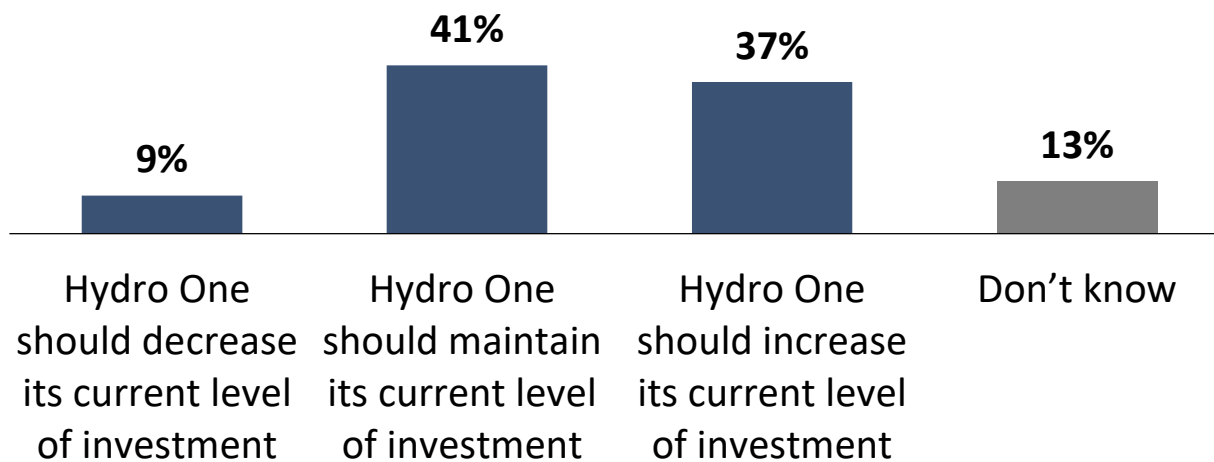
KEEPING PACE WITH DETERIORATING TX INFRASTRUCTURE

Which of the following statements best represents your point of view regarding Hydro One's approach to dealing with aging infrastructure?

- Hydro One should decrease its current level of investment and slow down the pace at which it replaces aging equipment to keep annual rate increases for new equipment at less than 50 cents on my monthly bill, even if that means steeper rate increases in the future.
- Hydro One should maintain its current level of investment and replace equipment at the same pace to keep annual rate increases for new equipment at slightly more than 50 cents on my monthly bill, even if that means rates will continue to increase at that level in the future.
- Hydro One should increase its current level of investment in the transmission system to keep pace with aging infrastructure, even if that means annual rate increases for new equipment under a dollar on my monthly bill and lower rate increases in the future.
- Don't know

KEEPING PACE WITH DETERIORATING TX INFRASTRUCTURE

A clear majority of customers want to either maintain or increase the current level of investment to replace aging transmission infrastructure.



How to implement what customers want:

- As the grid ages and condition deteriorates, it is critical that we ensure renewal spending is prudent and efficient for customers and communities, we will **maintain and enhance our focus on deteriorated and at risk assets.** Customers expect us to be prudent with our investments, and we will cautiously assess renewal and reinvestment opportunities.

Potential examples:

- Condition based re-investment / renewal
- Data and analytics

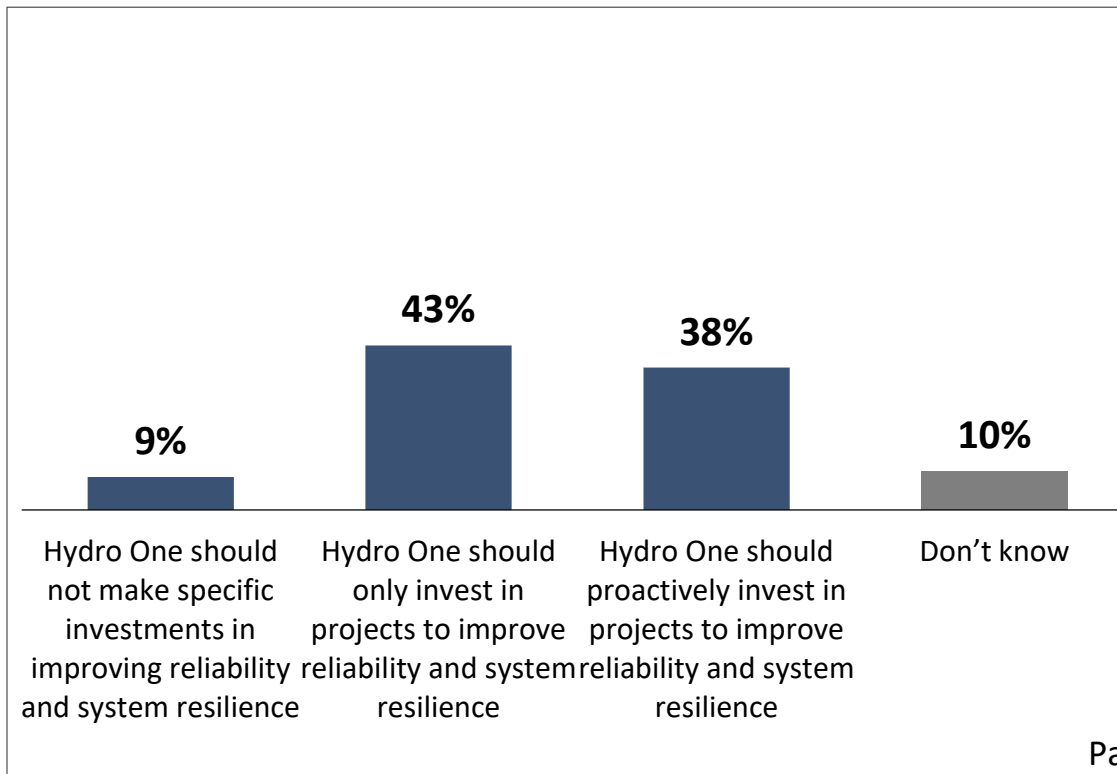
INVESTING IN A MORE RELIABLE TRANSMISSION SYSTEM

Which of the following statements best represents your point of view?

- In order to keep rates down, Hydro One should not make specific investments in improving reliability and system resilience, even if that could leave some customers worse off than others, and result in more and longer outages during severe weather.
- Hydro One should only invest in projects to improve reliability and system resilience as part of the ongoing replacement of old or failing equipment, even if that increases my monthly electricity bill by less than 25 cents each year.
- Hydro One should proactively invest in projects to improve reliability and system resilience, even if that increases my monthly electricity bill by a little more than 25 cents each year.
- Don't know

INVESTING IN A MORE RELIABLE TRANSMISSION SYSTEM

Most customers want investments in a more reliable transmission system, either as part of ongoing renewal or as proactive investments.



How to implement what customers want:

- We must prepare for the reliable grid of the future by designing and implementing solutions and functionality to **prevent, minimize and restore service following outages.** Customers expect us to be prudent with our investments, and we will cautiously assess renewal and reinvestment opportunities.

Potential examples:

- Accelerated 115kV Vegetation Control
- Outliers
- Non-wires alternatives (local generation)
- Standards (Hardening)
- Reconfiguration (Twinning /second supply, undergrounding, in-line switches, mobile transformer connections)
- Spares
- Distance to fault
- Data and analytics

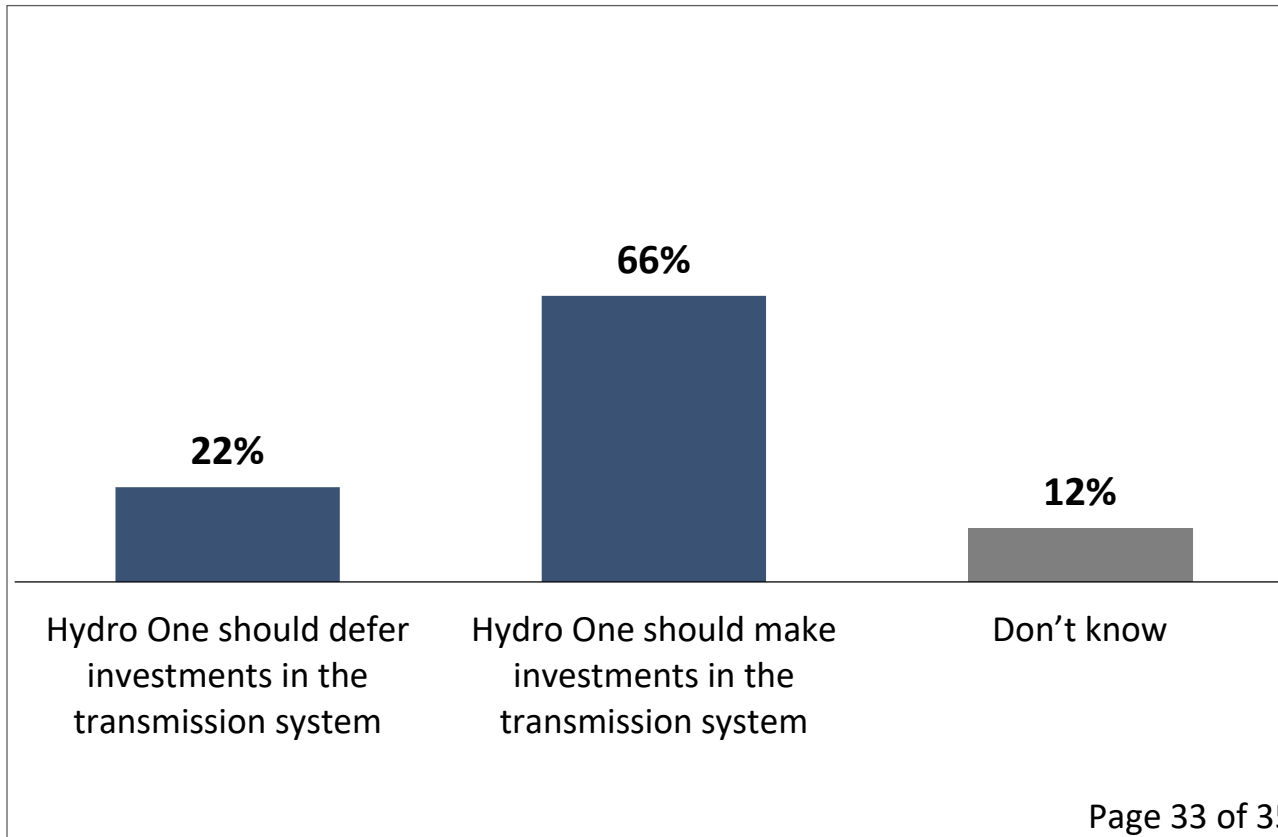
REDUCING THE NUMBER OF MOMENTARY OUTAGES

Which of the following statements best represents your point of view?

- Hydro One should defer investments in the transmission system aimed at improving power quality to keep costs down, even if that creates problems for manufacturers.
- Hydro One should make investments in the transmission system aimed at improving power quality, even if that increases my monthly electricity bill by a few cents each year.
- Don't know

REDUCING THE NUMBER OF MOMENTARY OUTAGES

The majority of customers want Hydro One to make investments to improve power quality.



How to implement what customers want:

- We will monitor, mitigate and respond to PQ concerns

Potential examples:

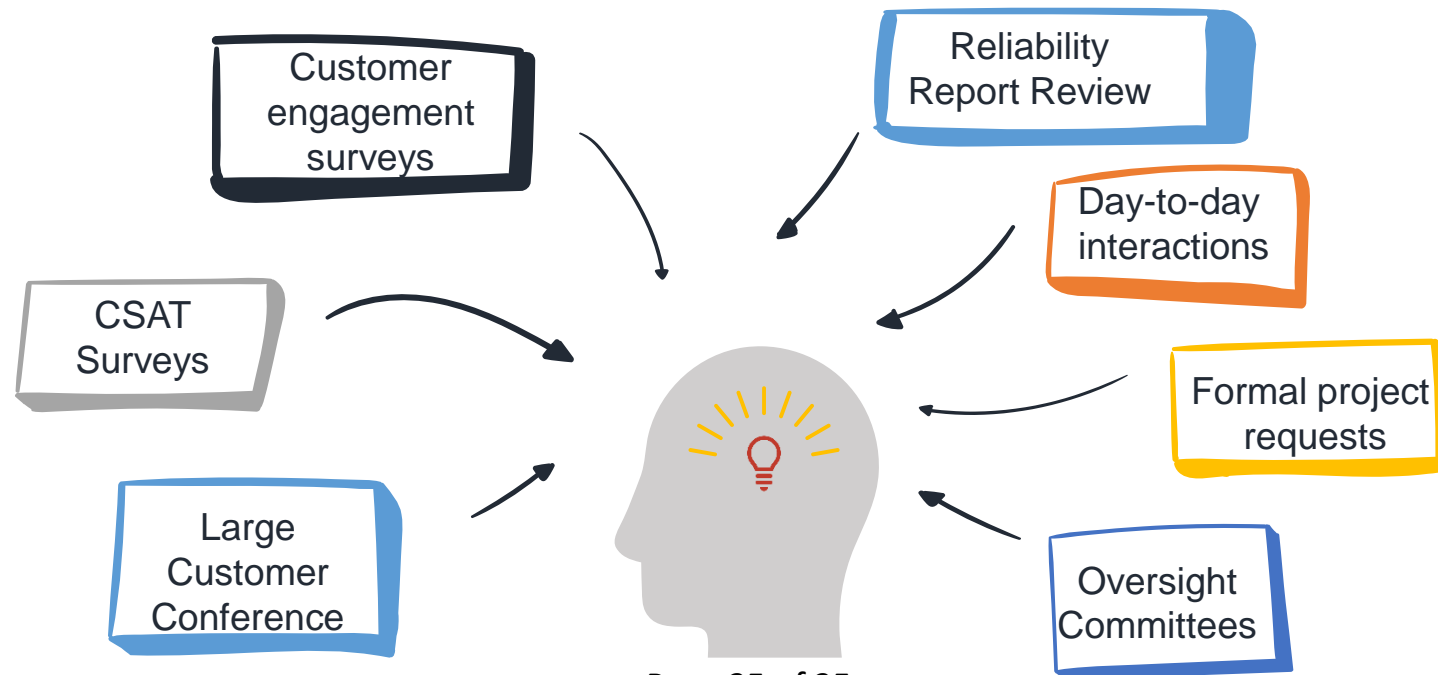
- Installation of capacitor switchers
- Installation of PQ monitors
- PQ monitoring and reporting

TX - LARGE CUSTOMER INSIGHTS



ONGOING CUSTOMER ENGAGEMENT

Dedicated Account Executives for Large Transmission and Distribution end-users, Local Distribution Companies and Large Generators gather on-going feedback.



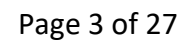


JOINT RATE FILING

Customer Engagement Results (Phase II)

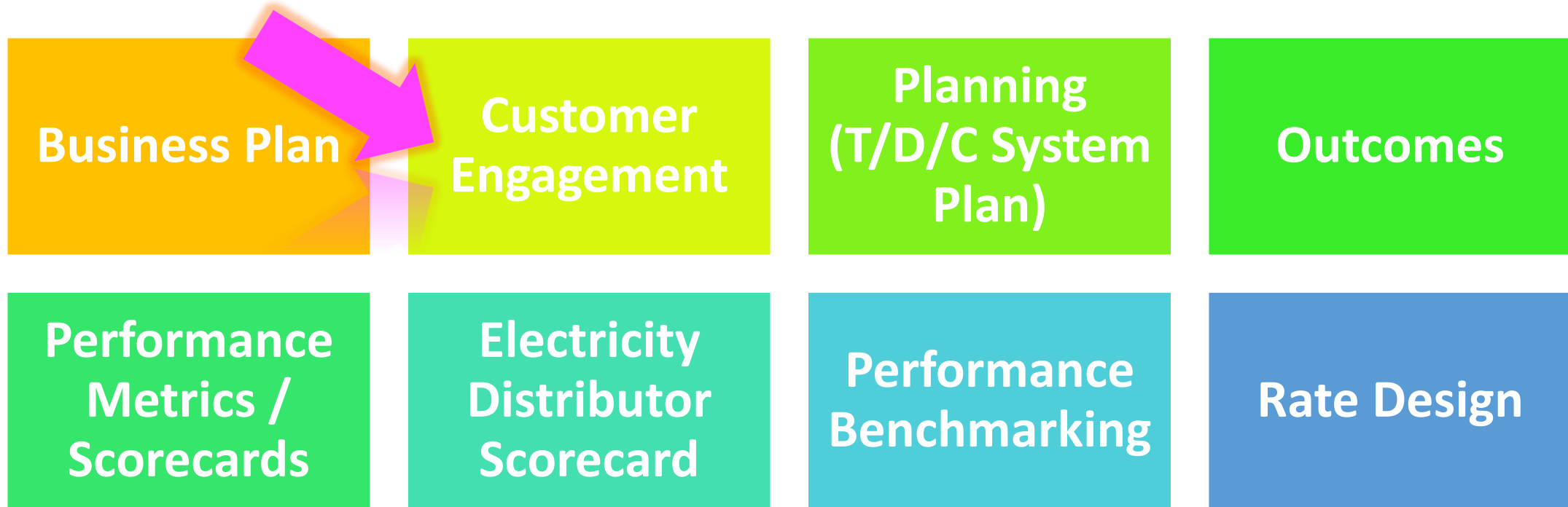
November 2020

SAFETY MOMENT | CUSTOMER MOMENT



JOINT RATE FILING APPLICATION

Components of an Application



CUSTOMER ENGAGEMENT

PHASE I: Customer Needs and Preferences (September 2019 – January 2020)

Objective: Provide planners and application architects with a summary of customer needs, preferences, and high-level priorities between utility investment and cost.

Activities: Hydro One reached out to a subset of its Dx and Tx customers through a wide range of activities, including: Focus groups, One-on-one interviews, Telephone surveys, Online workbooks

PHASE II: Trade-offs and Refinement (August – November 2020)

Objective: Collect customer input on trade-offs to refine draft investment plans before submitting rate application to OEB.

Activities: Hydro One reached out to all of its Dx and direct Tx customers, using an online workbook as the core tool for collecting customer feedback on its draft plan

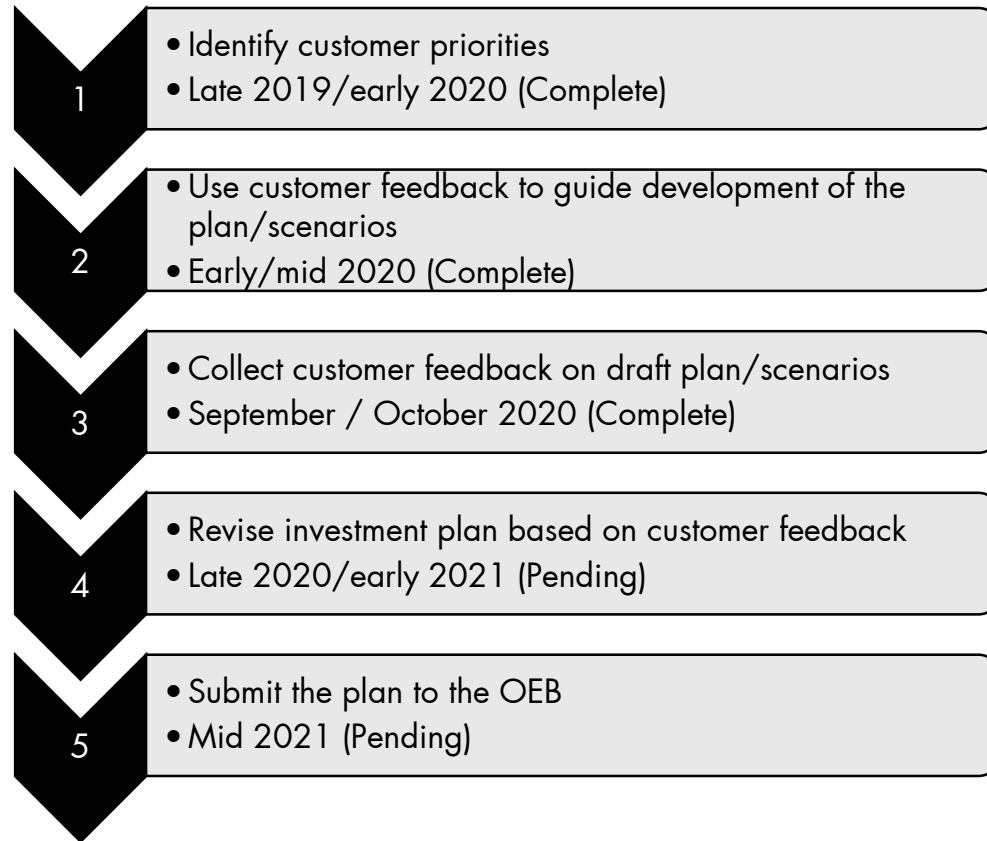
CUSTOMER FEEDBACK (PHASE II)

In total, **more than 43,000 customers** completed an online workbook—the core tool to gather customer feedback on Hydro One's draft investment plan. The workbook was tailored for different customer types.

Dx Customers	Sample size
Residential	N=40,283
Small business	N=1,121
C&I / LDA	N=218

Tx Customers	Sample size
Residential	N=41,543
Small business	N=1,533
C&I / LDA	N=218
LTX	N=51

INVESTMENT PLANNING



Customer Needs and Preferences validated during Phase 2 should inform the refinement of the Final Investment Plan, with a clear line of sight from customer preference to planning outcomes, based on specific trade-offs.



CUSTOMER ENGAGEMENT

Support for Hydro One's Draft Investment Plan

SUPPORT FOR HYDRO ONE'S DRAFT PLAN

The majority of customers prefer a spending level at the draft plan (Scenario 2) or above.

- Residential customers are most willing to opt for an accelerated pace (49%) over the draft plan (29%).
- A plurality of small business customers also prefers an accelerated pace (43%) over the draft plan (28%).
- C&I and LDA customers are split between the draft plan (30%) and an accelerated pace (33%).
- LTX customers mainly prefer the draft plan (59%) over an accelerated pace (18%).

	Supported Bill Increases		
Customer Type	Above draft plan	Included in draft plan	Below draft plan
Residential	49%	29%	12%
Small business (GS<50kW)	43%	28%	17%
C&I / LDA	33%	30%	18%
LTX	18%	59%	8%

DX INVESTMENT TRADE-OFFS

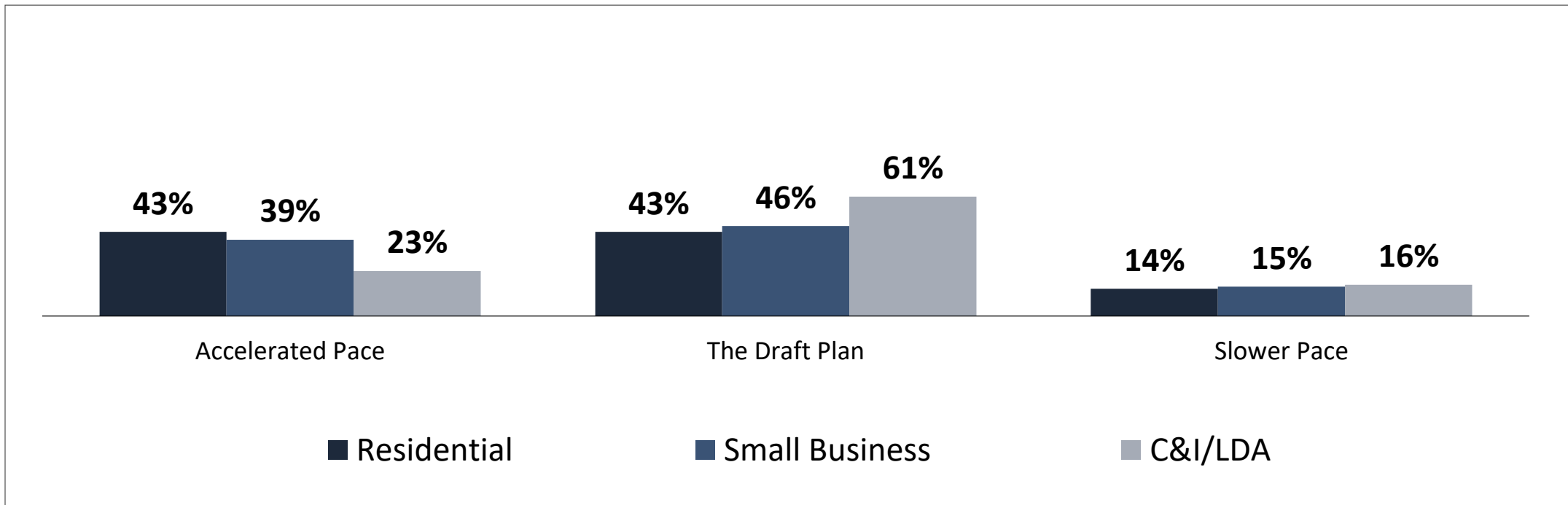


REPLACING POLES IN POOR CONDITION

Option	Poles Replaced	Expected Outcome
Accelerated Pace	100,000 total over 5 years	Replace all poles in poor condition that serve more than 30 customers . This plan would not address smaller poles in poor condition but improve the overall health of poles and lead to steadier rate increases in the future.
The Draft Plan	65,000 total over 5 years	Replace all poles in poor condition that serve at least 100 customers . This plan would not address smaller poles in poor condition but maintain the overall health of poles and lead to steadier rate increases in the future.
Slower Pace	32,500 total over 5 years	Slow down the proposed pole replacement program and focus on larger poles that serve more than 400 customers . This plan would not address smaller poles in poor condition and lead to major deterioration of the overall health of poles, and steeper rate increases in the future.

REPLACING POLES IN POOR CONDITION

Across all customer types, the draft plan is the preferred option. The share of customers preferring an accelerated pace over a slower pace is substantially larger.

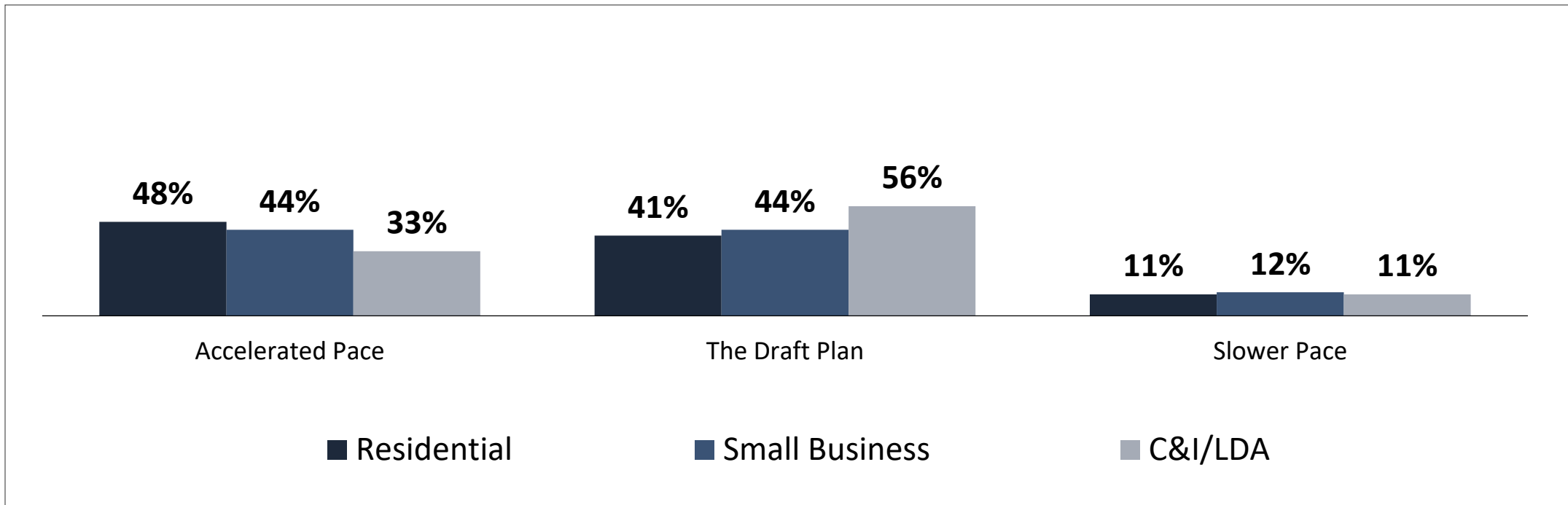


REPLACING POWER TRANSFORMERS IN POOR CONDITION

Option	Transformers Replaced	Expected Outcome
Accelerated Pace	130 total over 5 years	Increase the number of planned replacements to 26 per year. This will maintain the overall health of the transformers and lead to steadier rate increases in the future.
The Draft Plan	110 total over 5 years	Continue the current approach and proactively replace 22 transformers per year. This will lead to slight deterioration of the overall health of the transformers.
Slower Pace	50 total over 5 years	Slow down the proposed replacement program to 10 planned replacements per year. This will lead to a higher risk of outages due to transformer failures, major deterioration of the overall health of the transformers, and steeper rate increases in the future.

REPLACING POWER TRANSFORMERS IN POOR CONDITION

Residential customers tend to favour an accelerated pace, while business customers lean towards the draft plan.

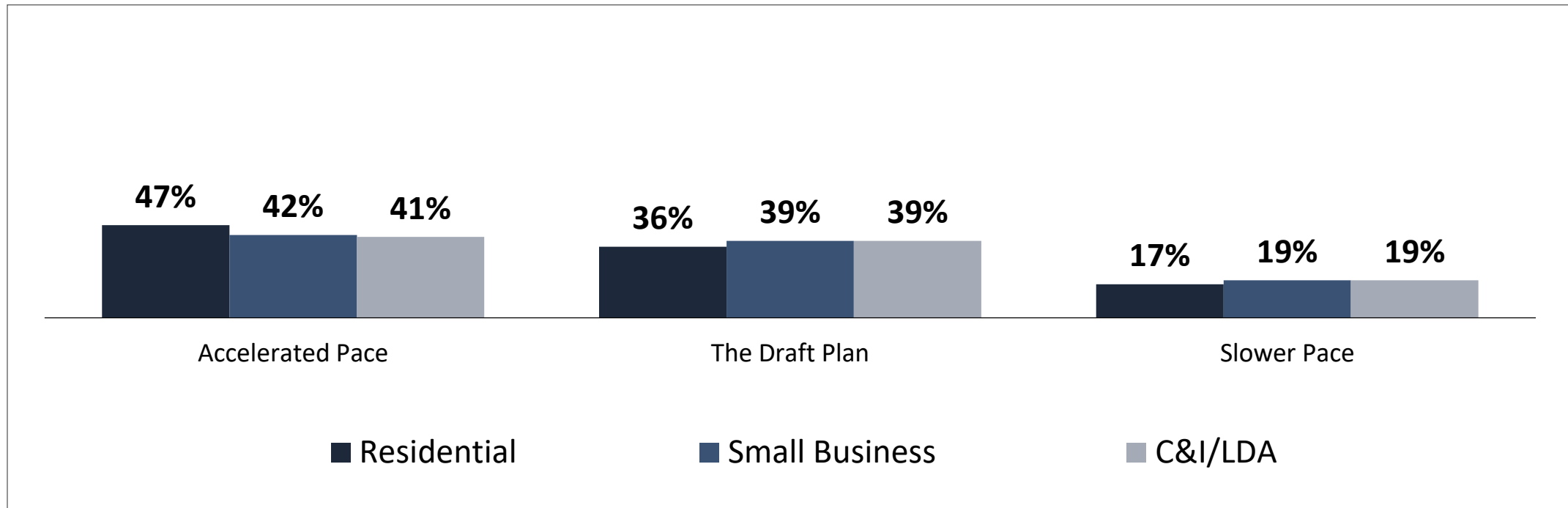


IMPROVING RELIABILITY THROUGH GRID MODERNIZATION

Option	Devices	Expected Outcome
Accelerated Pace	5,000 smart devices over 5 years	Over 600,000 customers would see a 40% average reduction in the duration of power outages per year.
The Draft Plan	4,300 smart devices over 5 years	Over 400,000 customers would see a 40% average reduction in the duration of power outages per year.
Slower Pace	3,900 smart devices over 5 years	Over 200,000 customers would see a 40% average reduction in the duration of power outages per year.

IMPROVING RELIABILITY THROUGH GRID MODERNIZATION

Across all customer types, the accelerated pace is the preferred option.

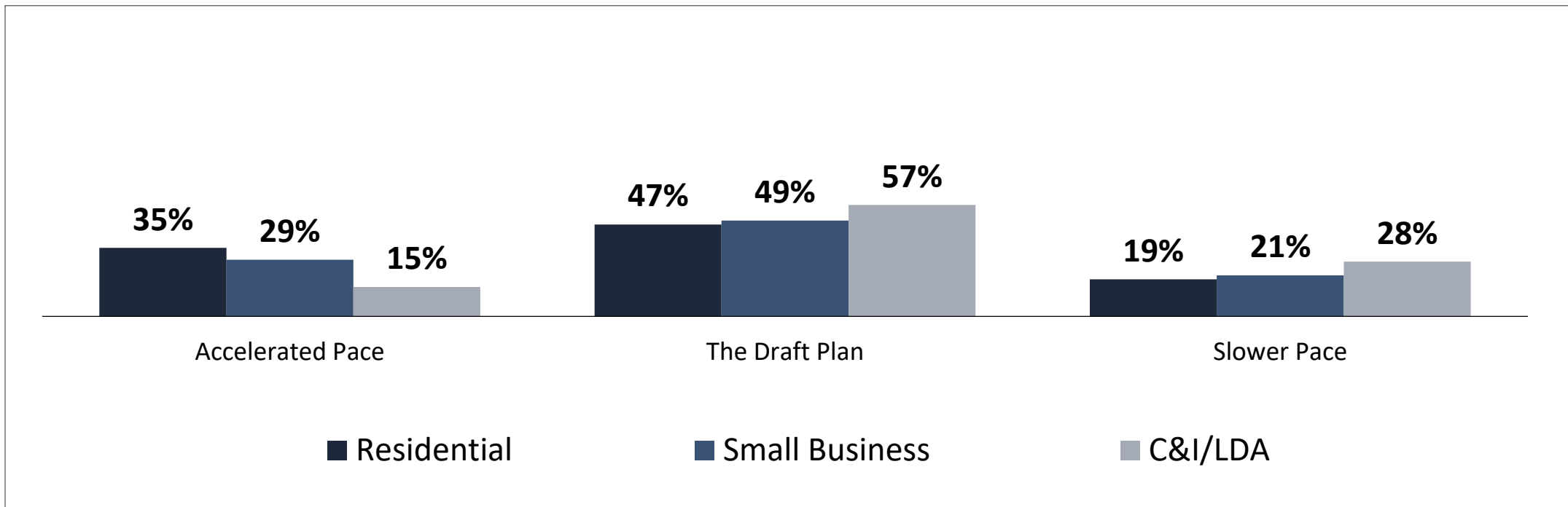


BATTERY ENERGY STORAGE SOLUTIONS

Option	Expected Outcome
Accelerated Pace	Significant reliability improvements for 8,500 customers currently experiencing extremely poor reliability.
The Draft Plan	Significant reliability improvements for 4,100 customers currently experiencing extremely poor reliability.
Slower Pace	Significant reliability improvements for 500 customers currently experiencing extremely poor reliability.

BATTERY ENERGY STORAGE SOLUTIONS

There is a clear preference for the draft plan, with less appetite for an accelerated pace than in previous investment choices—especially among larger business customers.

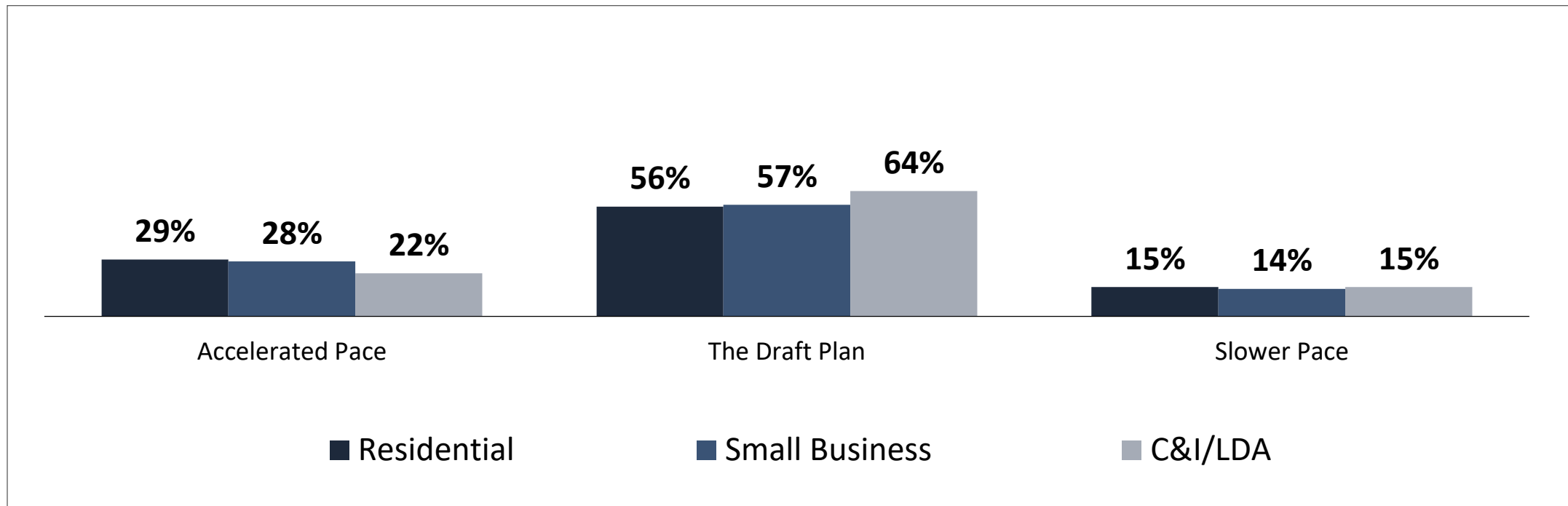


FACILITATING GROWTH

Option	Expected Outcome
Accelerated Pace	Enable regional and economic development in communities looking to grow, including in rural areas, and maintaining reliability and power quality for existing customers. Attracting new business will increase demand and that will spread the costs out in the long term, but in the short term some costs will be shared across all Hydro One customers.
The Draft Plan	Allow new economic development to proceed as planned, including in rural areas, and maintain reliability and power quality for existing customers.
Slower Pace	Keep the costs for customers down, but potentially delay community growth and economic development, especially in rural areas, and negatively affect reliability and power quality for existing customers in the long run.

FACILITATING GROWTH

A majority of customers across all segments prefers the draft plan over an accelerated or slower pace.

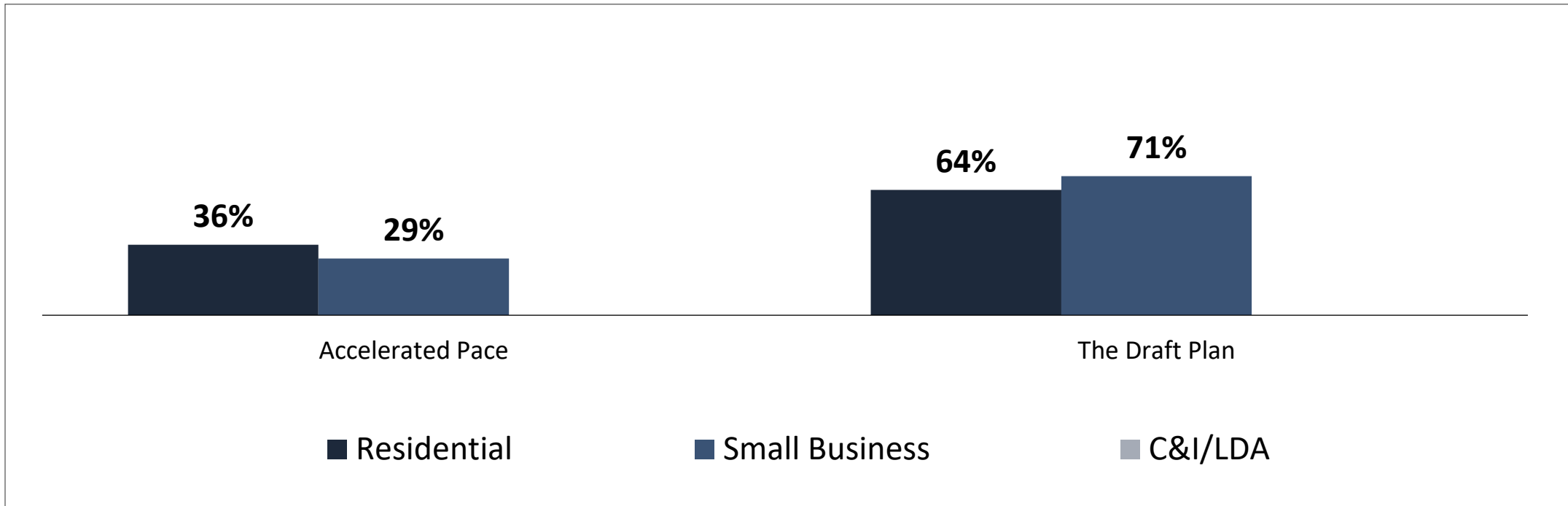


REPLACING SMART METERS

Option	Expected Outcome
Accelerated Pace	Replace all meters over a 5-year period , meaning the entire system will be updated to the new standard sooner and the rate of failing meters will go down faster, compared to the draft plan. The costs for customers will be higher in the short term, but will be lower overall, as fewer replacements and maintenance costs will be required to keep up the old system.
The Draft Plan	Replace all meters over a 7-year period , meaning it will take longer to update the entire system to the new standard, while Hydro One spends money maintaining the old system. The costs for customers would be spread over a longer period, leading to lower costs in the short term, as more of this investment will be pushed into the future, but higher costs overall due to the need to maintain the current system while transitioning to the new one.

REPLACING SMART METERS

Both residential and small business customers have a clear preference for the draft plan.



TX INVESTMENT TRADE-OFFS

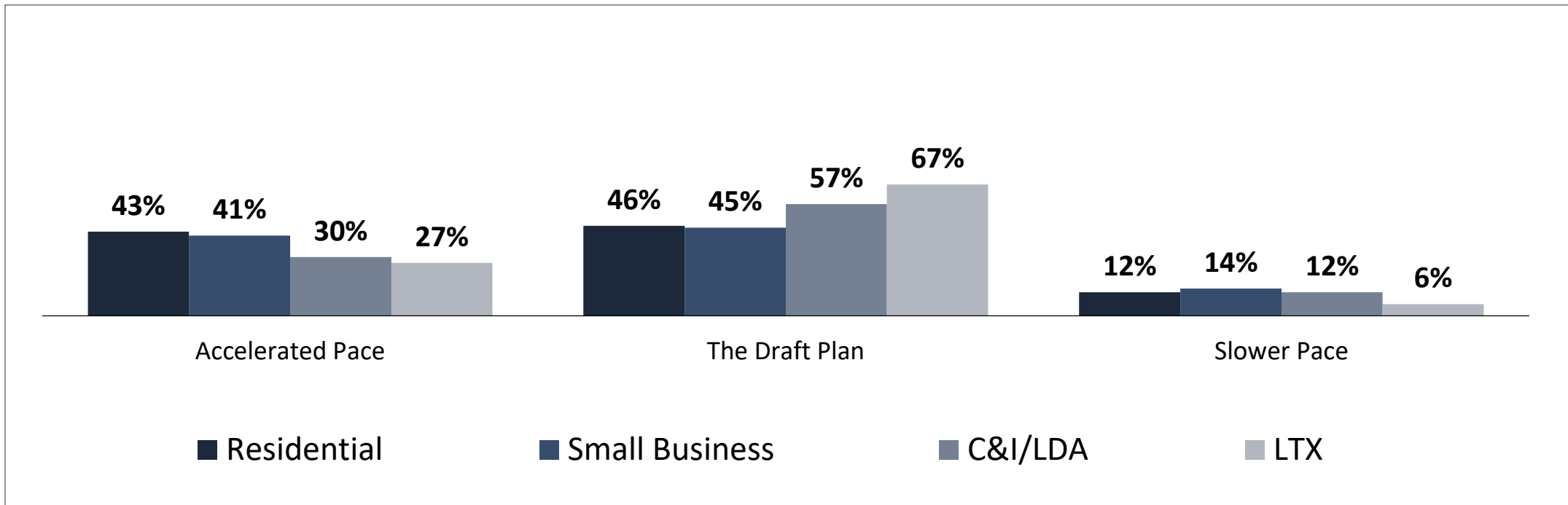


REPLACING TRANSMISSION LINES IN POOR CONDITION

Option	Lines Replaced	Expected Outcome
Accelerated Pace	1,790 km over 5 years, including 460 km of single supply lines	Replace 51% of lines (conductors) in poor condition to moderately improve current level of safety and overall health of transmission lines, and keep rate increases steadier in the future.
The Draft Plan	1,470 km over 5 years, including 455 km of single supply lines	Replace 42% of lines (conductors) in poor condition to maintain current level of safety and overall health of transmission lines, and keep rate increases steadier in the future.
Slower Pace	1,375 km over 5 years, including 375 km of single supply lines	Replace 39% of lines (conductors) in poor condition and slightly lower current level of safety and reliability performance. Need for additional investment later on will likely lead to steeper rate increases in the future.

REPLACING TRANSMISSION LINES IN POOR CONDITION

Across all customer types, the draft plan is the preferred option. Residential and small business customers show a greater interest in the accelerated pace than larger business customers.

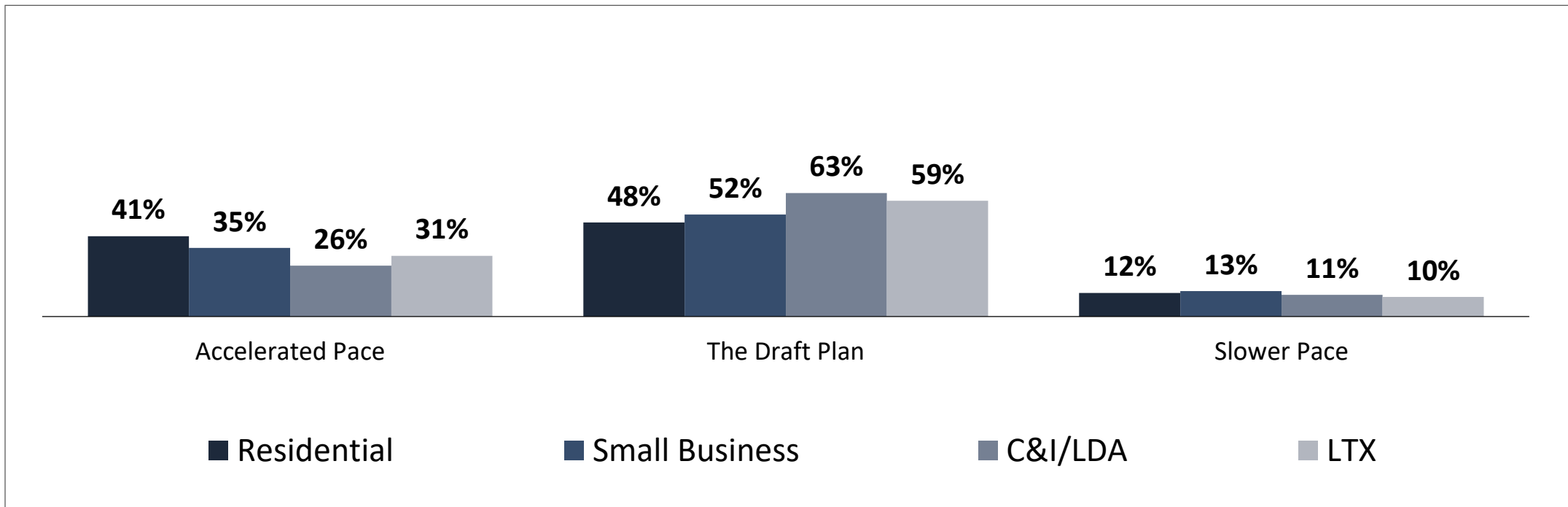


REPLACING AGING TRANSMISSION STATIONS

Option	Equipment Replaced	Expected Outcome
Accelerated Pace	30 transformers and related equipment per year; 150 in total	Improve the overall health of the transmission stations infrastructure and reduce the risk of equipment failure, keeping future rate increases at a steadier rate.
The Draft Plan	25 transformers and related equipment per year; 125 in total	Maintain the overall health of the transmission stations infrastructure and sustain current performance and environmental risk, keeping future rate increases at a steadier rate.
Slower Pace	20 transformers and related equipment per year; 100 in total	Focus on replacing only the most critical infrastructure now. This increases performance and environmental risks and creates the need for additional investment later on, leading to steeper rate increases in the future.

REPLACING AGING TRANSMISSION STATIONS

Across all customer types, the draft plan is the preferred option.



A - SCHOOL ENERGY COALITION INTERROGATORY - 008

Reference:

No reference provided

Interrogatory:

After the Board made certain disallowances to the proposed 2020-2022 transmission capital and OM&A budgets in its Decision and Order in EB-2019-0082, please explain how Hydro One modified its capital and OM&A plans to account for the revised amounts approved by the Board. In your response, please not only explain the specific modifications made, but a detailed explanation of the process taken to come to its revised plans. Please also provide a copy of contemporaneous documents outlining the modification to its plans.

Response:

Capital

Hydro One incorporated the capital spending reductions resulting from the OEB's Decision in EB-2019-0082 by using its risk-based investment prioritization and optimization process to identify work that could be deferred within the 2020-2022 period. The OEB disallowed \$400M of capital expenditures, excluding adjustments and reclassification of OPEB costs.

The following documents describe how Hydro One incorporated the capital reductions directed in the OEB's Decision and Order in EB-2019-0082:

- Hydro One's Draft Rate Order dated May 28, 2020 (EB-2019-0082)
 - Section 3: Capital Reductions
- Hydro One's Draft Rate Order Reply Submission dated June 25, 2020 (EB-2019-0082)
 - Section 2: Capital Reductions

OM&A

Hydro One considered the structure of, and feedback within the OEB's decision, explored opportunities for enhanced efficiencies across field operations and corporate groups, as well as modifications to maintenance cycles to align overall OM&A with OEB's approved levels, as required. Please refer to Interrogatory Response E-CCC-023 for further details on the measures Hydro One took to manage the OEB reduction, including an analysis against actual results.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-008
Page 2 of 2

1

This page has been left blank intentionally.

A - SCHOOL ENERGY COALITION INTERROGATORY - 009

Reference:

No reference provided

Interrogatory:

After the Board made certain disallowances to the proposed 2018-2022 distribution capital and OM&A budgets in its Decision and Order in EB-2017-0049, please explain how Hydro One modified its capital and OM&A plans to account for the revised amounts approved by the Board. In your response, please not only explain the specific modifications made, but a detailed explanation of the process taken to come to its revised plans. Please also provide a copy of contemporaneous documents outlining the modification to its plans.

Response:

The following documents describe how Hydro One incorporated the capital and OM&A reductions directed in the OEB's Decision and Order in EB-2017-0049:

- Hydro One's Draft Rate Order dated April 5, 2019 (EB-2017-0049)¹
 - Section 3: Capital Reductions
 - Section 4: OM&A
- Hydro One's Draft Rate Order Reply Submission dated May 9, 2019 (EB-2017-0049)²
 - Section 2: Capital Reductions
- Hydro One's Revised Capital Investment Plan (2018-2022), filed as part of Hydro One's 2020 Annual Update (EB-2019-0043)³
- See E-CCC-028 for information on Hydro One's OM&A reductions. In general, in implementing OM&A reductions, Hydro One considered the OEB's findings and accordingly identified efficiencies in field operations and corporate groups, and modified maintenance cycles to align its OM&A budget to OEB-approved levels.

¹ <https://www.rds.oeb.ca/CMWebDrawer/Record/638926/File/document>

² <https://www.rds.oeb.ca/CMWebDrawer/Record/641430/File/document>

³ <https://www.rds.oeb.ca/CMWebDrawer/Record/651252/File/document>

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-009
Page 2 of 2

1

This page has been left blank intentionally.

Witness: JODOIN Joel, JESUS Bruno

A - SCHOOL ENERGY COALITION INTERROGATORY - 010

Reference:

Exhibit A-4-1, Page 6

Interrogatory:

In which application does Hydro One expect each of the Distribution CISVA and Transmission CISVA account balances to be examined and cleared?

Response:

In the current Application, 2020 audited balances are presented for disposition. In the event that the OEB allows a blue-page update, Hydro One will reflect the 2021 audited balances once they become available.

Hydro One will present any accumulated CISVA balances since those that are approved for disposition in the current Application at the next rebasing at which point they will be reviewed for prudence, as applicable.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-010
Page 2 of 2

1

This page has been left blank intentionally.

A - SCHOOL ENERGY COALITION INTERROGATORY - 011

Reference:

Exhibit A-4-1, Page 2

Interrogatory:

Please confirm that the Hydro One proposes to use the Inflation Factor determined by the Board in EB-2021-0212 if it is different from the inflation factor proposed in the Application.

Response:

Hydro One notes that the EB-2021-0212 proceeding determined the inflation factor for the purposes of setting 2022 rates only. At the time of the draft rate order in this proceeding, Hydro One will update the Inflation Factor assumptions to reflect the most recently issued factors issued by the OEB. In subsequent years, the Inflation Factor will be updated annually to reflect the latest values issued by the OEB as described in Exhibit A-4-1.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-011
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 012

Reference:

Exhibit A-4-1, Page 4

Interrogatory:

Please explain why Hydro One proposes to clear the ESM deferral account only once, at the time of rebasing, rather than annually, or simply in accordance with the Board's standard rules for deferral account dispositions.

Response:

The current proposal as outlined in Exhibit A-04-01 to dispose of the ESM deferral account balances at the next rebasing application (which will accumulate over the 2023-2027 period) is consistent with the OEB's guidance in respect of the disposition of Group 2 Accounts.¹

¹ Section 3.4 of the OEB's Chapter 3 Filing Requirements dated June 24, 2021

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-012
Page 2 of 2

1

This page has been left blank intentionally.

A - SCHOOL ENERGY COALITION INTERROGATORY - 013

Reference:

Exhibit A-4-1, Page 6

Interrogatory:

Please describe the methods the Hydro One proposes to use to measure and verify the amount of productivity gains related to in-service additions.

Response:

Hydro One will use the existing Productivity Framework to validate productivity achievements. Specifically, and as outlined on Page 2 of SPF Section 1.4, the Productivity Framework is the process for:

- i. identifying and developing productivity initiatives (which are internally approved as the initiatives qualify for the program);
- ii. approving the initiative-level methodologies by which savings are to be measured;
- iii. the on-going tracking, reporting and auditing of performance; and
- iv. integrating savings into the business plan.

Within part (iii) above of the process, Hydro One would verify the impact to in-service additions from capital based productivity. This exercise will occur if Hydro One under in-services relative to OEB approved levels, triggering a potential entry to the CISVA. Hydro One would then assess the cost underage relative to capital based productivity. This would be executed by initiative, with a view of how much in-service was reduced due to the capital-based productivity. Any capital productivity that does not translate to an in-service reduction would be excluded from the analysis. For example, if the capital savings related to a long-term project with a future period of in-service, it would be excluded.

Hydro One further notes that if an entry is required to the CISVA, any future balance requested for disposition would be an audited balance.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-013
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETSIS Stephen, CHHELAVDA Samir, JODOIN Joel

A - SCHOOL ENERGY COALITION INTERROGATORY - 014

Reference:

Exhibit A-4-1, Attachment 1, Page 5

Interrogatory:

Please explain why Clearspring was engaged “through counsel”, rather than directly by Hydro One. Please provide a detailed description of the differences, if any, in those two approaches relative to:

- a) The obligations of the expert firm and the individual witnesses to Hydro One, to the Board, and to counsel.
- b) The ability of the parties to the proceeding to ask questions of the expert witness, and receive full and complete answers.
- c) The documents or categories of documents that would be subject to any kind of confidentiality or privilege, including but not limited to proposals, communications, edits, presentations, and all other documents or tangible work product.
- d) Communications between the expert and Hydro One personnel.
- e) Instructions and direction by the Applicant to the expert, including determination of the scope of the engagement, and any changes to that scope, editorial advice and commentary relating to the written report, and any other instructions or direction.

Response:

Clearspring was engaged as an expert consultant by counsel in connection with providing legal advice regarding the preparation of Hydro One’s pre-filed evidence and supporting expert report filed by Hydro One as part of discharging its legal burden of proof that the rates sought in the Application are just and reasonable. Clearspring is an independent expert. Its report has been filed in evidence and is subject to the requirements of rule 13A.03, including the provision of the acknowledgment of expert duty. Intervenors are entitled to ask interrogatories, conduct examination on the expert’s report and make submissions to the extent relevant. That is the case regardless of whether counsel or the applicant directly retained the expert. Other questions in respect of the process of engaging the expert are not relevant to the setting of rates or the matters at issue in this proceeding.

Witness: VETSIS Stephen

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-014
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETSIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 015

Reference:

Exhibit A-4-1, Attachment 1, Page 6 and 29

Interrogatory:

Please confirm that Hydro One's transmission TFP is moving in an unfavourable direction relative to the benchmark used by the expert. Please quantify in dollars the increase in Hydro One's costs from 2003 to 2027 (-64.8% to -30.9%) relative to the benchmark.

Response:

Response from Clearspring

We do not agree with the characterization "unfavourable". The movement from -64.8% to -30.9% has offered Ontario ratepayers a very substantial amount of cost savings both in the past and throughout the CIR period. Hydro One remains ranked #2 in the entire transmission sample of 50 utilities, even throughout the CIR period.

There are two points that may be useful when considering this characterization.

- It would be unrealistic to expect a utility to be able to continually have costs at such a low level relative to its peers, and it does not mean it is performing relatively "unfavourably" when it cannot sustain in the long-run this unrealistic level of beating its competition. Keep in mind that maintaining the score of -64.8% would require Hydro One to continually beat its peers by an average of 64.8% every year. If it only beat its peers by 20% in one year, its average costs would decline but that would still be a favourable result relative to the benchmark.

An analogy may be helpful here. In 1993, John Olerud played first base for the Toronto Blue Jays and had a league-leading .363 batting average. The next year, he hit .297 for the Blue Jays. Over these two seasons his batting average was a robust .336. During this time the league batting average mean was .267 for all players. In 1993, John Olerud beat that league average benchmark by .096 (9.6%) but if you combine 1993 and 1994 he only beat the benchmark by a combined 6.9%. As his performance reverted more towards the mean, his overall amount above the benchmark diminished even while continuing to beat the benchmark in any given year, just not as much as he did in that league-leading 1993 year. Did John Olerud really have an unfavourable performance for the Blue Jays in 1994?

1 No. The only reason someone might come to that conclusion is if the benchmark was his
2 1993 stellar performance rather than a benchmark of his peers.
3
4 • A large portion of total costs are capital costs. Capital costs and the rate base are built up
5 over several years through plant additions. We would expect that a utility who has total
6 costs at the very low levels that Hydro One had at the start of the period could not
7 continue to keep plant additions and overall costs 60% below its peers. At some point,
8 increased capital expenditures would be expected to bring the utility towards the
9 benchmark value. We see this occurring with Hydro One, although even at the end of the
10 CIR period, its total costs are still well below the benchmark values, and it is still
11 maintaining its #2 ranking in the entire sample. We also see that the Company's older-
12 than-average transmission capital age is being maintained at its current older-than-
13 average levels throughout the CIR plan.
14
15 We would, therefore, characterize all of this as quite favourable to Ontario ratepayers. We are
16 not able to provide a quantification of dollars resulting from the benchmark exercise. There are
17 several normalizations and calculations that enable a fair and accurate comparative study, but do
18 not directly translate to revenue requirement dollars.

A - SCHOOL ENERGY COALITION INTERROGATORY - 016

Reference:

Exhibit A-4-1, Attachment 1, Page 7

Interrogatory:

Please explain why the transmission industry TFP trend in the U.S. is declining since 2000. Please provide evidence that the TFP trend for transmission in Canada is also declining, and if so a) at what rate, and b) for what reasons.

Response:

Response from Clearspring

Please see p. 54 and 55 of the Clearspring Report regarding possible explanations for the negative TFP trend in the U.S. These possible explanations include: 1) the increasing of unmeasured outputs (reliability, cybersecurity, safety, regulatory requirements, generation interconnections from solar/wind, environmental stewardship, geomagnetic disturbances, and other aspects of power quality and security); 2) Slowing growth in electricity demand; 3) Changes in the age of infrastructure.

Canadian transmission utilities provide services that are largely similar to their U.S. peers. Many Canadian utilities trade power in the U.S. and abide by an array of regulations that originated in the U.S. The increasing challenges faced by U.S. utilities (listed above) are for the most part also faced by Canadian utilities. Most Canadian utilities are members of regional reliability councils and interconnections. The most likely scenario is that the Canadian transmission TFP is following the clearly negative trend found in the U.S. sector for the reasons cited above.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-016
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 017

Reference:

Exhibit A-4-1, Attachment 1, Page 8

Interrogatory:

Please confirm that Hydro One's distribution TFP is moving in an unfavourable direction relative to the benchmark used by the expert. Please quantify in dollars the increase in Hydro One's costs from 2003 to 2027 (-24.4% to +10.3%) relative to the benchmark.

Response:

Response from Clearspring

Please see our response to A-SEC-15. Hydro One's distribution total cost score in 2003 is at -24.4%, which is a strong score relative to the total cost score benchmark, although not quite as good as the transmission score. However, this may be due to the reasons and differences between benchmarking Hydro One's transmission and distribution operations cited in the Clearspring Report on p. 38 and 39.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-017
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 018

Reference:

Exhibit A-4-1, Attachment 1, Page 14

Interrogatory:

Please provide details of all modelling done to assess the impact of the selection of sample period on the benchmark TFP trend. Please confirm that, for transmission, the effect of starting in 2000 rather than 1995 or 1990 is expected to be that the period of increasing productivity in the period prior to 2000 is left out of the model. Please provide graphs, in the same format as Figures 1 and 4, using 1995 as the base year rather than 2000.

Response:

Response from Clearspring

Modeling was not conducted, nor was it needed, to determine that the sample period should begin after the 1990s. The sample period was dictated by the industry restructuring that occurred, and the clearly different cost challenges that existed then compared to now. Beginning the TFP sample period in 2000 and going through 2019 offers a long period to measure the industry productivity trend. This is a more than sufficient period on which to base the productivity factor. Please see pp. 9 and 10 in the Clearspring Report for a detailed discussion on why we began the TFP and benchmarking sample period in 2000, and how we made it consistent across both the transmission and distribution studies.

In the prior transmission application of Hydro One, PEG did begin its transmission benchmarking study in 1995. In our Reply Report in that application, we illustrated the skewed results towards a higher cost performance evaluation this created for all utilities in the sample (when benchmarking recent or projected observations). In our Reply Report, we did offer a relatively simple fix if PEG wanted to begin the sample period in 1995 (even though we would still recommend against this route because of the industry restructuring issue). This fix consists of including one extra variable; PEG itself appeared open to including this extra variable in prior testimony (this testimony was cited in the Reply Report).

Below is a revised Figure 1 that has a sample period beginning in 1995 and includes a quadratic trend variable to avoid skewed and unfair scores. We do note that even without this quadratic trend variable, but beginning the sample in 1995, Hydro One would still have a ranking of #2 in the entire sample for its most recent historical time period.

Witness: FENRICK Steve

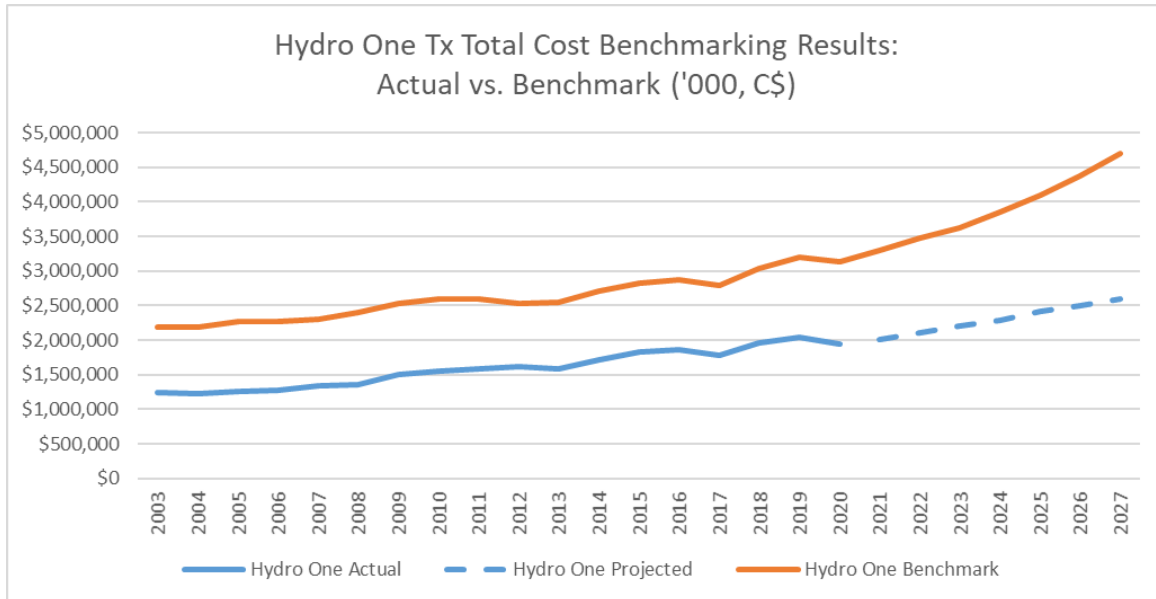
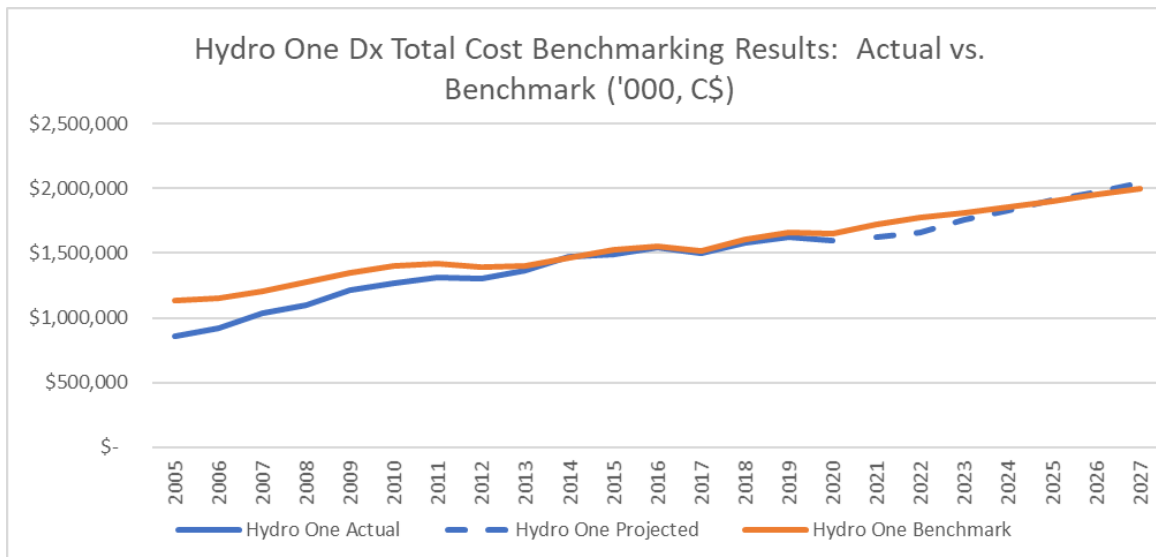


Figure 4 uses a sample period beginning in 1995, and for the sake of consistency and due to the longer time period, we also included the same quadratic trend variable as we did for the revised Figure 1 above.



A - SCHOOL ENERGY COALITION INTERROGATORY - 019

Reference:

Exhibit A-4-1, Attachment 1, Page 16

Interrogatory:

Please quantify the impact of adding the new voltage variable.

Response:

Response from Clearspring

Excluding the voltage variable (the “distribution work variable”), which corrects for accounting classification differences between transmission and distribution, would result in an inferior model and less accurate result. Without this correction, differences in classifications and the amount of work that a distribution utility does on high voltages is not accounted for. Eliminating this variable in the model would create a mis-specified model with omitted variable bias and would weaken the explanatory power of the model. The adjusted R-squared value of the model is reduced by eliminating this explanatory variable from the model. Reducing the accuracy of the model in this way would raise Hydro One’s distribution benchmarking score during the CIR period by 4.9%.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-019
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 020

Reference:

Exhibit A-4-1, Attachment 1, Page 24

Interrogatory:

With respect to the exclusion of pensions and benefits.

- a) Please quantify the impact of excluding pension and benefit expenses.
- b) Please provide the percentages of Hydro One's transmission operating costs and capital costs that are represented by pension and benefit expenses.
- c) Please provide an estimate, with citations, of the percentage of operating costs and capital costs of U.S. transmission companies that are represented by pension and benefit expenses.

Response:

Response from Clearspring

- a) If pensions and benefits are included in the transmission total cost definition, Hydro One's transmission benchmarking scores moves from -34.5% to -34.0% during the CIR period.
- b) In 2019, Hydro One's pension and benefit expenses are approximately 1.4% of its total costs, which include both operating and capital costs. Pension and benefit costs are approximately 9.1% of transmission OM&A costs and 1.6% of the transmission capital costs in the study.
- c) From our dataset in 2019, the U.S. sample average pension and benefit expenses are approximately 1.1% of the total costs. Pension and benefit costs are approximately 5.2% of transmission OM&A expenses and 1.3% of transmission capital costs.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-020
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 021

Reference:

Exhibit A-4-1, Attachment 1, Page 24

Interrogatory:

Please describe what tests were carried out by the expert to ensure that the output data from Hydro One was calculated on a comparable basis to FERC Form 1 data.

Response:

Response from Clearspring

No tests were carried out. The study used the reported kilometers of transmission lines (converted from line miles in the FERC Form 1 data) and the reported system peaks. These are the same variables used by PEG in the last transmission application. We discuss the merits of the two possible peak demand data sources on p. 13 of the Clearspring Report. Transmission line lengths and peak demand values are relatively straightforward to report and it's not clear to us what tests could be undertaken or why they would be necessary.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-021
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 022

Reference:

Exhibit A-4-1, Attachment 1, Page 27

Interrogatory:

Canadian transmission utilities regularly file public information with their regulators. Please explain why this information could not be used to include Canadian electricity transmitters in the benchmarking sample. Please explain why the expert made no direct efforts (other than through Hydro One) to obtain reliable Canadian information.

Response:

Response from Clearspring

To our knowledge, there are no Canadian transmission utilities that publicly file data that would enable us to consistently calculate cost levels, including capital costs which require a long time series on plant additions, and all variables within the model.

In the last transmission application for Hydro One, we directly contacted Canadian transmitters. No utilities agreed to provide the necessary data and be included in the sample. Given this, we believed that Hydro One might have a better chance of obtaining their participation and so the Company contacted the utilities.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-022
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 023

Reference:

Exhibit A-4-1, Attachment 1, Page 32

Interrogatory:

Please explain why the output variable of distribution service territory was used, rather than kilometers of lines, as with transmission. Please explain how the expert adjusted for relative density of service territory between Hydro One and the comparators.

Response:

Response from Clearspring

The U.S. does not have a reliable source of data on kilometers of lines for distribution utilities. Kilometers (miles) of lines are reported for U.S. transmission companies on the FERC Form 1s, but unfortunately distribution kilometers of line are not reported. Distribution kilometers of line would be a helpful variable. To compensate and to adjust for the relative density of service territory, we include the square kilometers of service territory for each observation in the distribution model. We treated the variable as an output variable and included second order terms. As PEG itself noted in its most recent Hydro Ottawa report in EB-2019-0261 on p. 40: "The area of the service territory is a legitimate candidate for treatment as an output variable with a full complement of second order terms (e.g., area x area and area x customers). This can capture the cost impact of high and low customer density." We agree with PEG's statement and continued its approach in this application.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-023
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 024

Reference:

Exhibit A-4-1, Attachment 1, Page 34

Interrogatory:

With respect to the decision to exclude of pensions and benefits expenses:

- a) Please quantify the impact of excluding pension and benefit expenses.
- b) Please provide the percentages of Hydro One's distribution operating costs and capital costs that are represented by pension and benefit expenses.
- c) Please provide an estimate, with citations, of the percentage of operating costs and capital costs of U.S. distribution companies that are represented by pension and benefit expenses.

Response:

Response from Clearspring

- a) Hydro One's performance score slightly improves from 7.0% to 6.2% in the CIR period when pensions and benefit expenses are included in the total cost definition for distribution.
- b) In 2019, Hydro One's pension and benefit expenses are approximately 2.7% of its total costs, which include both operating and capital costs. Pension and benefit costs are approximately 9.0% of distribution OM&A costs and 3.9% of the distribution capital costs in the study.
- c) From our dataset in 2019, the U.S. sample average pension and benefit expenses are approximately 1.7% of the total costs. Pension and benefit costs are approximately 6.1% of distribution OM&A costs and 2.5% of capital costs.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-024
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 025

Reference:

Exhibit A-4-1, Attachment 1, Page 34

Interrogatory:

With respect to the decision to exclude CSI expenses:

- a) Please quantify the impact of excluding CSI expenses.
- b) Please provide the percentages of Hydro One's distribution operating costs and capital costs that are represented by CSI expenses.
- c) Please provide an estimate, with citations, of the percentage of operating costs and capital costs of U.S. distribution companies that are represented by CSI expenses.

Response:

Response from Clearspring

- a) If CSI expenses were added back in for all the sampled utilities including HONI, the benchmark results for the Company would improve to -9.7% during the CIR period. This would continue to indicate a 0.3% stretch factor for distribution, although the result would be near the threshold for a 0.15% stretch factor. The approach we took resulted in the Company's benchmark score being considerably worse than it otherwise would have been if we had left CSI expenses in the cost definition. We took this approach because CSI expenses may not be consistently reported in the U.S., and some utilities may include in CSI expenses some or all of their CDM expenses, which can be sizeable. For this reason, we exclude those expenses from the cost definition in our study to assure consistency with the costs of HONI and the entire sample.
- b) In 2019, Hydro One's CSI expenses are approximately 0.1% of total costs. They are 0.2% of OM&A expenses and 0.1% of capital costs.
- c) In 2019, the U.S. sample average has CSI expenses that are 6.4% of total costs. CSI expenses are 18.4% of the sample's OM&A expenses and 9.9% of capital costs.

Witness: FENRICK Steve

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-025
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 026

Reference:

Exhibit A-4-1, Attachment 1, Page 35

Interrogatory:

Please confirm that the capital costs of overhead lines are typically lower than underground lines, but that the operating costs associated with overhead lines are typically higher. Please describe the overlap, if any, between the overheadxforestation variable and the congested urban variable, and what steps the expert took to ensure that they did not double count the effects they were expressing.

Response:

Response from Clearspring

We can confirm that generally capital costs of overhead lines are typically lower than underground lines, but that the operating costs associated with overhead lines are typically higher. There is likely a correlation between the forested overhead variable and the congested urban variable. This is perfectly acceptable when estimating an econometric model; correlations between variables occur all the time (for example, number of customers and peak demands are certainly correlated). When correlation exists, it does require a larger sample for the model to estimate the appropriate parameter values for each variable at the designated confidence intervals; however, there are no "double counting" concerns if variables are correlated.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-026
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 027

Reference:

Exhibit A-4-1, Attachment 1, Page 36

Interrogatory:

Please explain why no Ontario distributors were included in the sample.

Response:

Response from Clearspring

Please see our response to A-Staff-009 (d).

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-027
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 028

Reference:

Exhibit A-4-1, Attachment 1, Page 38

Interrogatory:

For each of the companies in the same, please provide the compound annual growth rate of their rates for the period of the benchmarking.

Response:

Response from Clearspring

We do not have the historical rates for the distribution benchmarking sample required to do this calculation. In Clearspring's view examining the rates of companies is far less informative than examining the econometric total cost benchmark scores due to the ability of the econometric method to adjust for several variables and the standardization of costs across the total cost benchmarking sample.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-028
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 029

Reference:

Exhibit A-4-1, Attachment 1, Page 43

Interrogatory:

Please provide details of the explanatory value the expert is claiming for the combined “cost performance result” of -18.2%. Please specify what conclusions the expert believes the Board can reach based on this piece of data.

Response:

Response from Clearspring

This value was calculated by summing the transmission and distribution benchmark costs for Hydro One from the two benchmark studies and comparing that benchmark to the actual/projected costs for Hydro One from the two studies. The result reveals that the combined total costs for the distribution and transmission operations of Hydro One are 18.2% below benchmark expectations. This result would support a conclusion that, on an overall basis, Hydro One’s total cost levels are considerably lower than benchmark expectations.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-029
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 030

Reference:

Exhibit A-4-1, Attachment 11, Page 46

Interrogatory:

Please provide the Hydro One data for the period 2003-2017.

Response:

Response from Clearspring

The Hydro One capital age results become more accurate and reliable the further from 2003 the observation is, as indicated in our report. Since plant addition and retirement data was not available for Hydro One prior to 2003, we used Hydro One's plant vintage schedule in 2003 as a starting point and mimicked the sample calculation from that 2003 starting point. As we stated in the report on p. 72, "The discrepancy between Hydro One and the sample benchmark caused by this assumption will diminish as the examined year gets further from 2003 and the calculation is able to mimic the U.S. calculation and reduce the impacts of the 2003 assumption. By a year such as 2019, the calculation has had 16 years to reduce this discrepancy. However, we do caution comparing Hydro One's capital age to the industry capital age in the earlier years of the sample."

For this reason, we are of the opinion that only the most recent and projected results should be relied upon. However, the results can be found in the working papers in the modeling dataset with the variable name "age_tx".

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-030
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 031

Reference:

Exhibit A-4-1, Attachment 1, Page 47

Interrogatory:

Please provide details on what tests or other methods were used to validate and/or quantify the statement: "The Company's older transmission capital age is likely one of the main contributors to the Company's strong transmission total cost benchmarking result".

Response:

Response from Clearspring

While we did not conduct tests to quantify the statement, it is based on the mechanics of the capital age calculation and the total cost benchmarking research. Hydro One has maintained a higher capital age than the sample, and therefore its levels of capital additions and retirements would need to be lower than what the industry is undertaking. Lower levels of plant additions will also have the impact of lowering the calculated capital costs in the benchmark study, thus improving the benchmark score.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-031
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 032

Reference:

Exhibit A-4-1, Attachment 1, Page 48

Interrogatory:

Please provide the Hydro one data for the period 2003-2017.

Response:

Response from Clearspring

Please see our response to A-SEC-030. The capital age variable can be found in the working papers in the modeling dataset. The variable name is "age_dx".

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-032
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 033

Reference:

Exhibit A-4-1, Attachment 1, Page 49

Interrogatory:

Please confirm that the estimate 17.3 vs. 16.2 is a calculation done by the expert. Please provide that calculation.

Response:

Response from Clearspring

Confirmed. The calculation was provided in the working papers in the "Capital Age" directory. The result can be replicated by subtracting the following from Hydro One's distribution additions and retirements: AMI 2.0 additions (the variable named "ami2_a"); and the AMI 2.0 retirements (the variable named "ami2_r"). The numbers 17.3 and 16.2 are results of the capital age calculations that Clearspring undertook to enable a comparative study between Hydro One and the industry, and not the actual capital age of the distribution assets. Given this, it may be more helpful to view AMI 2.0 as increasing the Company's age of assets by around 6.5% rather than by 1.1 years.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-033
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 034

Reference:

Exhibit A-4-1, Attachment 1, Page 58

Interrogatory:

Please provide details of which, if any, of the additional listed outputs have been measured or otherwise tested by the expert.

Response:

Response from Clearspring

The additional outputs listed, such as reliability, cybersecurity, safety, regulatory requirements, generation interconnections from solar or wind, environmental stewardship, protections from geomagnetic disturbances, and aspects of power quality and security, have not been measured or tested by Clearspring. As we stated on this same page in the report as is referenced, these outputs are difficult or impossible to incorporate and consistently measure across the sample of utilities. For the most part, data is unavailable for these outputs.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-034
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 035

Reference:

Exhibit A-4-1, Attachment 1, Page 60-61

Interrogatory:

Please confirm that the expert's analysis generally shows that OM&A increases as capital age declines. Please explain why this result has occurred.

Response:

Response from Clearspring

The analysis generally shows that the null hypothesis (that a change in capital age has no impact on OM&A changes) cannot be rejected. In other words, the analysis is unable to show a statistically significant relationship between changes in the capital age and OM&A.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-035
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 036

Reference:

Exhibit A-4-2, Page 5

Interrogatory:

Please provide Table 1 in Excel format with all formulas enact.

Response:

Table 1 has been provided in Excel format as Attachment 1 in Hydro One's response to A-Staff-7.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-036
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETSIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 037

Reference:

Exhibit A-4-2, Page 5

Interrogatory:

Please provide a calculation of the forecast capital-related revenue requirement collected in current rates in 2022, on a comparable basis to the calculations in Table 1.

Response:

A calculation of the forecast 2022 capital-related revenue requirement was provided in Table 3 of Hydro One's Draft Rate Order, filed on May 28, 2020, in the EB-2019-0082 proceeding.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-037
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETSIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 038

Reference:

Exhibit A-4-2, Page 7

Interrogatory:

Please add a row to Table 3 showing the forecast transmission revenue in 2022.

Response:

Hydro One's 2022 transmission revenue requirement is currently before the OEB for approval in the EB-2021-0186 proceeding. The proposed 2022 revenue requirement is \$1,807.6M and is based on an Inflation Factor of 2.00%.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-038
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 039

Reference:

Exhibit A-4-3, Page 2

Interrogatory:

Please calculate the stretch factor that would be necessary for Hydro One's costs over the Custom IR term to equal the benchmark, rather than average 7.0% higher.

Response:

Response from Clearspring

This is not the purpose of the stretch factor, and, to our knowledge, a stretch factor has never been employed in regulation in any jurisdiction based on the value necessary to bring the costs to the benchmark value (in either direction). When inserting the Company's projected plant additions, we do not reduce those investment values by the proposed stretch factor (or the proposed supplemental stretch factor). This is a conservative path in that it shows the benchmark score for Hydro One prior to any stretch factor reductions in capital, thus, making the scores higher than they would be with these reductions.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-039
Page 2 of 2

1

This page has been left blank intentionally.

Witness: FENRICK Steve

A - SCHOOL ENERGY COALITION INTERROGATORY - 040

Reference:

Exhibit A-4-3, Page 5

Interrogatory:

Please provide Table 1 in Excel format with all formulas enact.

Response:

Table 1 is provided in Excel format as Attachment 1 to Hydro One's response to A-Staff-7.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-040
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 041

Reference:

Exhibit A-4-3, Page 8

Interrogatory:

Please add a row to Table 3 showing the forecast distribution revenue in 2022.

Response:

Hydro One's 2022 distribution revenue requirement is currently before the OEB for approval in the EB-2021-0032 proceeding. The proposed 2022 distribution revenue requirement is \$1,674.6M and is based on an Inflation Factor of 2.20% and is further detailed in footnote 5 of Exhibit D-1-1.

Hydro One also notes that the 2022 distribution revenue requirement does not include the Acquired Utilities. As noted on page 11 of Exhibit D-1-1, an incremental revenue requirement of roughly \$30M is included in 2023 for the Acquired Utilities. This incremental amount is reflected in values shown in Table 3 of Exhibit A-4-3.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-041
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETSI Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 042

Reference:

Exhibit A-4-1, Page 3

Interrogatory:

Please explain why Hydro One did not undertake an updated distribution TFP study for this application and why it believes the results of the study filed in EB-2017-0049 remain valid.

Response:

Response from Clearspring

Mr. Fenrick's results in EB-2017-0049, PEG's research in that same application, and the 4th Generation IRM research all showed negative TFP trends for the Ontario distribution industry. This is the best available information, and the three sources all reveal a negative productivity trend.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-042
Page 2 of 2

1

This page has been left blank intentionally.

A - SCHOOL ENERGY COALITION INTERROGATORY - 043

Reference:

Exhibit A-4-3, Page 7

Interrogatory:

Please explain why Hydro One chose revenue and not a price cap approach for its distribution rate framework.

Response:

A revenue cap approach was approved by the OEB in Hydro One Distribution's prior Custom IR proceeding, EB-2017-0049. The proposed custom Revenue Cap Index approach for distribution is appropriate and better suited for Hydro One's circumstances including because it:

1. is more consistent with Hydro One's business planning process and can be easily reconciled to the Rates Revenue Requirement estimated for the test period by Business Planning;
2. allows the company to update its billing determinants to reflect estimated changes in the load forecast on a class-specific basis over the IR term; and
3. aligns with the methodology used for Hydro One's transmission business.

Hydro One is unique in that it is both a transmitter and distributor. Having consistent approaches across both of its businesses yields efficiencies by simplifying Hydro One's internal processes and is more easily communicable to both internal and external stakeholders. The proposals in this application ensure that the rate-setting frameworks for Hydro One's Distribution and Transmission businesses continue to be largely aligned.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-043
Page 2 of 2

1

This page has been left blank intentionally.

Witness: VETIS Stephen

A - SCHOOL ENERGY COALITION INTERROGATORY - 044

Reference:

Exhibit A-6-1, Page 10

Interrogatory:

If the OEB ordered Hydro One to change its accounting standards to IFRS, how long would Hydro One need to implement the change?

Response:

While PwC estimates in its report that a transition could take 12-24 months (without accounting for a number of potential issues that could arise), in Hydro One's view a more realistic estimate of the time needed to implement a change in its accounting standards to IFRS, if Hydro One were ordered by the OEB to do so for regulatory purposes, is at least 3-4 years. The time needed to implement such a change would depend on a number of factors, including but not limited to the specifics of any such OEB order and the need for the Company to manage competing priorities and any additional challenges that may emerge.

The key factors driving this estimated timeline include:

- Uncertainty due to the possibility that IASB guidance changes during the course of the implementation period. As described in Section 3 of the PwC Report, the Exposure Draft remains subject to change and is expected to become effective 18-24 months after being finalized and published. This could give rise to a need for Hydro One to modify its implementation of IFRS. To start a transition now to the interim standard could result in incremental costs, duplicative work and delay as the requirements change.
- Hydro One is planning an update from SAP to S4/HANA, which is critical foundation for any successful implementation of IFRS that may be required (but which is required regardless of whether Hydro One transitions to IFRS). A summary of technology risks based on PwC discussions with Hydro One management is provided on pp. 17-18 of the PwC Report.
- As noted in Interrogatory Response **A-Staff-14**, a change to IFRS will require changes in the way Hydro One plans and executes work, so the timeline for implementation would need to provide sufficient opportunity to consider those additional impacts to ensure they can be managed effectively. In this respect, Hydro One expects that it would need

1 to perform a detailed assessment of its impacted processes and systems. The findings of
2 that analysis would inform the timing needed to operationalize the transition to IFRS.
3 The various workstreams expected to be needed to implement such a change are
4 summarized on pp. 14-15 of the PwC Report at Exhibit A-06-01 Attachment 1.

A - SCHOOL ENERGY COALITION INTERROGATORY - 045

Reference:

Exhibit A-6-1, Page 11

Interrogatory:

Hydro One notes that it has implemented ASU 2018-15 related to capitalization of hosting costs that are in a service contract:

- a) Please provide the value per year of the contract.
- b) If the OEB were to determine that the amounts should not be capitalized, please provide the revenue requirement difference per year.

Response:

a) Hydro One clarifies that the context for the reference to Hydro One's adoption of ASU 2018-15 is not to a single contract, but rather to a change in capitalization policy as a result of a change in US GAAP standards with respect to the capitalization of implementation costs associated with hosting arrangements that are service contracts. Capitalized implementation costs from IT projects due to the adoption of ASU 2018-15 vary by year, depending on the specific projects being completed. For further details around capitalization due to ASU 2018-15 please refer to Interrogatory Response **A-Staff-018**.

b) As noted in response to part a) above, the reference is not to a single contract or particular amounts thereunder. Under accounting standard ASU 2018-15, the requirements for capitalizing costs incurred in relation to a hosting arrangement are limited to only the implementation costs associated with the cloud solution, including only the first-year service and licensing costs. Ongoing service contract costs related to any cloud hosting or licensing are expensed (treated as OM&A). Hydro One is following these standard practices under US GAAP.

If the OEB determined that these costs should not be capitalized and ordered Hydro One to deviate from US GAAP standards, the result would be that these costs would be treated as OM&A and increase revenue requirement. Expensing of these costs would also introduce intergeneration inequity as cost recovery would not match the period over which customers would be benefiting from these investments.

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule A-SEC-045
Page 2 of 2

1

This page has been left blank intentionally.

Witness: CHHELAVDA Samir, MARCOTTE Kevin

B1 - SCHOOL ENERGY COALITION INTERROGATORY - 046

Reference:

Exhibit B-1-1, SPF Section 1.2, Page 15

Interrogatory:

Please provide a table that includes for each year between 2018 and 2027, the total amount of Hydro One's actual and forecast transmission capital expenditures for projects that are included in a Regional Infrastructure Plan (RIP), broken down by category (i.e. system access, renewal, service, etc.). Please provide a similar table on an in-service addition basis.

Response:

Please see below tables for Hydro One's actual and forecast totals for transmission projects included in a Regional Infrastructure Plan (RIP) by OEB Category.

Table 1 - Transmission Capital Expenditures for projects included in a RIP by OEB category

(\$ Millions)	Actual			Forecast						
OEB Category	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
System Access	25.6	42.0	17.4	32.9	6.8	8.7	33.4	16.2	7.7	4.9
System Renewal	201.0	236.6	269.8	268.8	430.0	530.8	480.4	463.9	411.8	380.1
System Service	14.9	17.9	75.3	166.0	70.8	43.1	37.5	25.0	0.0	0.0

Table 2 - Transmission In-Service Additions for projects included in a RIP by OEB category

(\$ Millions)	Actual			Forecast						
OEB Category	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
System Access	7.8	62.9	4.9	11.3	43.2	2.6	0.0	44.2	0.0	25.0
System Renewal	197.9	199.0	257.1	222.0	320.0	539.2	458.7	584.7	390.8	457.6
System Service	2.6	22.2	6.8	34.0	286.6	11.6	0.0	103.1	0.0	0.0

Filed: 2021-11-29
EB-2021-0110
Exhibit I
Tab 22
Schedule B1-SEC-046
Page 2 of 2

1

This page has been left blank intentionally.

Witness: REINMULLER Robert, SPENCER Andrew

B1 - SCHOOL ENERGY COALITION INTERROGATORY - 047

Reference:

Exhibit B-1-1, SPF Section 1.2, Attachment 1, Page 2

Interrogatory:

Please identify all individual investments included in the application that may be impacted by the IRRP addendum that has yet to be completed.

Response:

The following three regions were identified in the referenced exhibit as expecting to have an IRRP addendum:

1. Burlington to Nanticoke;
2. Metro Toronto; and
3. Greater Ottawa

In addition to those 3 identified, the Windsor-Essex region is also expecting an IRRP addendum as noted in ISD T-SA-10 in Exhibit B-2-1, TSP Section 2.11.

For the Burlington to Nanticoke region, the IRRP addendum has been delayed. However, it is not anticipated to impact any investments identified for the Burlington to Nanticoke region within the 2023 to 2027 period.

For the Metro Toronto region, the anticipated IESO IRRP addendum may impact the following investment:

- Southwest GTA Transmission Reinforcement (T-SS-06).

For the Greater Ottawa region, the anticipated IESO IRRP addendum may impact the following investment:

- Merivale TS: Add 230/115kV Autotransformers (T-SS-05).

For the Windsor-Essex region, the anticipated IESO IRRP addendum may impact the following investments:

- Lauzon TS: Transformer (T5, T6, T7 and T8) and Component Replacement (T-SR-03);
- Build Leamington Area Transformer Station #5 (T-SA-10);
- Build Leamington Area Transformer Station #6 (T-SA-10).

Witness: REINMULLER Robert

- 1 However, it should be noted that Hydro One plans closely reflect the ongoing discussions with the
- 2 IESO and technical working group. Given the specific details of these investments, it is expected
- 3 that the addendum updates will have minimal effect and therefore, no material impact on these
- 4 individual investments for the 2023 to 2027 period.