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2020 OEB Custom Incentive Rate Progress Report

1. INTRODUCTION

As part of Hydro Ottawa's 2016 to 2020 (EB-2015-0004) Custom Incentive Rate (CIR) setting process, Hydro Ottawa has committed to report annually on the following:

Key Performance Metrics (KPIs)

a) Additional Operational Effectiveness KPIs which are not included in the OEB's Electricity Distributor Scorecard or the Ontario Energy Board's Yearbook:

- Safety,
- System Reliability,
- Asset Management, and
- Cost Control.

b) The progress of its DSP capital spending program in the following categories:

- System Access,
- System Service and System Renewal, and
- General Plant.

Hydro Ottawa uses KPIs to measure continuous improvement in asset management planning, capital investment planning and in customer-oriented performance. These indicators include quantitative measures to monitor the effectiveness of planning processes, efficiencies in carrying out those plans, as well as identifying shortfalls as areas for continuous improvement.

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2. SAFETY

Hydro Ottawa tracks and reports on oil spills and the cost of remediation.[1] Reportable spills are identified to the Ministry of the Environment, Conservation and Parks. In 2020, Hydro Ottawa's annual oil spills amounted to 954L with remediation costs estimated at $402,000.[2]

3. SYSTEM RELIABILITY

Customer Average Interruption Duration Index
The annual average time required to restore power to the average customer per sustained outage in 2020 was 1.7 hours including loss of supply and Major Event Days. Excluding loss of supply and Major Event Days, the annual average time to restore power to the average customer was 0.83 hours.

Feeders Experiencing Multiple Sustained Interruptions
This represents the number of feeders that experienced 10 or more sustained outages greater than 1 minute. This performance metric provides an indication as to which regions have seen the highest localized issues. For 2020, 10 feeders had 10 or more sustained outages.

Worst Feeder Analysis
In 2020, there were eight feeders identified as having "Very Poor" performance, which represents 1% of all feeders. It takes several years to see the impact of addressing the worst feeders. In 2020, two of the five feeders identified in 2019 as "Very Poor" saw improvements in their performance rankings, two stayed the same, and one had a worse performance ranking.

The System Average Root Mean Square Variation Frequency Index
This metric measures the average number of voltage sags on the system. Poor voltage is considered to be outside ±6% of the system nominal voltage. Hydro Ottawa maintained voltage within these tolerances in 2020 with the exception of 21 events. All of

[1] Cost represents external remediation contractor costs only.
[2] Oil spill work can continue into the next calendar year.

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these events occurred on eight separate days and can be attributed to transmission system faults. They did not coincide with any Hydro Ottawa power interruptions.

Stations Exceeding Planning Capacity
The percentage of stations with a summer peak operating above 100% of their planned capacity rating in 2020 was 13.2%.

Feeders Exceeding Planning Capacity
The percentage of feeders with a summer peak operating above 100% of their planned capacity rating in 2020 was 1.9%.

Stations Approaching Rated Capacity
The percentage of stations at or above 100% of the station rated capacity in 2020 was 0%.

Feeders Approaching Rated Capacity
The percentage of feeders at or above 90% of the rated capacity in 2020 was 0.1%.

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4. ASSET MANAGEMENT

Hydro Ottawa's gross capital spending excluding contributions is over the 2016-2020 Rate Application plan,[3] excluding Facilities Renewal Program, on a cumulative basis by 10.5% at the end of 2020.

System Access

System Access capital spending is driven by customer requests. As a result Hydro Ottawa has limited control over activity in this category of spending. Plans are based on historical trends. See Table 1 for 2020 progress on System Access capital spending compared to Rate Application plan. Cumulatively, Major System Expansion projects including the Chaudiere Generating Facility and support for the Light Rail Transit Plant Relocation contributed to the overspending. At the end of 2020, on a cumulative basis, System Access spending is over plan by 16.1%.

Table 1 – Capital Spending Compared to Rate Application Plan – System Access ($000)[4]

Investment Category / Capital Program	Budget Program	2020			Cumulative		
		Planned	Actual	Variance	Planned	Actual	Variance
Plant Relocation	Plant Relocation	8,248	19,645	11,397	39,656	49,243	9,586
Residential	Residential	7,457	10,485	3,028	35,851	37,418	1,567
Commercial	Commercial	13,084	10,900	(2,183)	64,951	62,473	(2,478)
System Expansion	System Expansion	2,511	2,915	404	13,231	30,978	17,747
Stations Embedded Generation	Stations Embedded Generation	408	34	(373)	1,960	1,257	(703)
Infill & Upgrade	Infill & Upgrade	3,420	3,617	196	16,444	18,317	1,873
Damage to Plant	Damage to Plant	1,243	999	(244)	5,976	6,257	281
Metering	Metering	180	388	207	867	1,850	983
TOTAL SPENDING		**36,551**	**48,983**	**12,431**	**178,937**	**207,794**	**28,857**

[3] Hydro Ottawa Limited, *2016-2020 Custom Incentive Rate-Setting Distribution Application*, EB-2015-0004 (April 29, 2015), Exhibit B-1-2, Table 1.1.1
[4] Totals may not add due to rounding

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System Renewal and System Service

Actual spending on System Renewal and System Service was under Rate Application plan by $6M in 2020. On a cumulative basis spending has exceeded plan by 0.7% for the five fiscal years ending 2020. System Renewal spending is incurred for replacement and refurbishment of system assets to extend original service life. System Service spending covers modifications to Hydro Ottawa's system to ensure the distribution system meets operational objectives while addressing future customer needs. On a cumulative basis spending on emergency and critical repair and replacement of Distribution Assets was greater than planned. This was mostly offset by underspending to plan on Station Assets and voltage conversion projects over the same period. See Table 2 for 2020 progress on System Renewal and System Service capital spending compared to plan.

Table 2 – Capital Spending Compared to Rate Application Plan – System Renewal and System Service ($000)[5]

Investment Category / Capital Program	Budget Program	2020			Cumulative		
		Planned	Actual	Variance	Planned	Actual	Variance
Stations Asset	Stations Transformer Replacement	7,965	3,359	(4,606)	38,073	28,464	(9,608)
	Stations Switchgear Replacement	6,114	2,984	(3,130)	32,905	31,443	(1,462)
	Stations Plant Failure	107	0	(107)	612	721	109
Stations Refurbishment	Stations Enhancement	691	1,075	384	3,315	3,113	(202)
Distribution Asset	Pole Replacement	7,189	5,211	(1,978)	36,915	42,936	6,020
	Insulator Replacement	183	0	(183)	722	401	(321)
	Elbow & Insert Replacement	207	0	(207)	1,103	450	(653)
	Dist. Transformer Replacement	881	(10)	(892)	4,270	945	(3,325)
	Civil Rehabilitation	694	579	(114)	5,881	4,638	(1,243)
	Cable Replacement	5,738	5,889	151	28,543	30,284	1,741
	Switchgear New & Rehab	410	328	(82)	2,834	4,045	1,211
	O/H Equipment New & Rehab	983	28	(955)	4,653	1,013	(3,640)
	Plant Failure Capital	2,893	13,875	10,982	14,388	56,857	42,468
Metering	Remote Disconnected Smart Meter	1,662	110	(1,552)	6,831	3,308	(3,522)
Stations Capacity	Stations New Capacity	15,626	17,193	1,567	61,478	44,087	(17,391)
Distribution Enhancements	Line Extensions	6,739	6,000	(739)	34,028	35,535	1,507
	System Voltage Conversion	5,413	1,466	(3,947)	24,048	12,714	(11,335)
	System Reliability	485	532	47	2,235	1,817	(419)
	Dist. Enhancements	757	1,473	716	3,658	4,852	1,194
Automation	SCADA Upgrades	51	200	150	2,679	3,104	426
	SCADA - RTU Additions	82	1	(81)	492	30	(462)
	Distribution Automation	3,510	2,292	(1,218)	18,179	21,854	3,675
	Stations Automation	651	0	(651)	2,698	136	(2,562)
TOTAL SPENDING		**69,032**	**62,585**	**(6,447)**	**330,541**	**332,748**	**2,207**

[5] Totals may not add due to rounding

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General Plant

On a cumulative basis, capital spending in Hydro Ottawa's General Plant category is 39.2% above Rate Application plan. Within the sub categories, timing of some projects has shifted resulting in variances. The increased spending on a cumulative basis in this category is largely a result of the timing of payments to Hydro One related to the Cambrian MTS project and retrofit expenditures on one of Hydro Ottawa's older facilities. See Table 3 for 2020 progress on General Plant capital spending compared to plan.

Table 3 – Capital Spending Compared to Rate Application Plan – General Plant ($000)[6]

Investment Category / Capital Program	Budget Program	2020			Cumulative		
		Planned	Actual	Variance	Planned	Actual	Variance
Buildings - Facilities	Buildings - Facilities	243	484	241	2,172	9,472	7,301
Customer Service	Customer Service	1,139	4,477	3,338	15,046	12,760	(2,286)
ERP System	ERP System	1,061	266	(795)	7,161	11,586	4,425
Fleet Replacement	Fleet Replacement	1,876	715	(1,160)	7,471	6,675	(797)
IT New Initiatives	IT New Initiatives	1,203	605	(598)	6,718	7,267	549
IT Life Cycle & Ongoing Enhancement	IT Life Cycle & Ongoing Enhancement	1,816	854	(961)	9,113	5,794	(3,319)
Operations Initiatives	Operations Initiatives	1,069	276	(793)	3,892	3,966	75
Tool Replacement	Tool Replacement	548	512	(37)	2,650	2,779	129
Hydro One Payments	Hydro One Payments	5,000	29,878	24,878	24,575	49,409	24,834
TOTAL SPENDING		**13,954**	**38,066**	**24,111**	**78,798**	**109,708**	**30,910**

5. COST CONTROL

Hydro Ottawa utilizes two metrics in order to monitor labour utilization: productive time and labour allocation. Productive time targets are set to maximize efficiencies. In 2020 the productive time metric was 69%, down from 72% in 2019 due to COVID related downtime to support social distancing. Labour allocation metrics are set to ensure productive time is effectively apportioned among operation, maintenance and administration, and Capex activities. In 2020, the labour allocation to Capex metric result was 58%, the same as 2019.

[6] Totals may not add due to rounding