EB-2024-0115

ONTARIO ENERGY BOARD

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

AND IN THE MATTER OF an Application by Hydro Ottawa Limited ("Hydro Ottawa") pursuant to section 78 of the OEB Act, approving or fixing just and reasonable distribution rates effective January 1, 2026.

COMPENDIUM OF THE SCHOOL ENERGY COALITION

Shepherd Rubenstein P.C.
120 Eglinton Ave. East
Suite 1000
Toronto, Ontario M4P 1E2

Mark Rubenstein
Tel: 647-483-0113
mark@shepherdrubenstein.com

Counsel for the School Energy Coalition

Appendix 2-JA

Summary of Recoverable OM&A Expenses

	2021 Last Rebasing Year OEB Approved	2021 Last Rebasing Year Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2024 Actuals	2024 Variance	2025 Bridge Year	2026 Test Year	2023 Year to Date June	2024 Year to Date June	2025 Year to Date June
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Operations		$ 22,289,609	$ 25,958,200	$ 26,739,431	$ 33,934,538	$ 31,047,451	$ (2,887,088)	$ 33,750,401	$ 44,892,545	$ 13,584,120	$ 15,556,104	$ 16,293,301
Maintenance		$ 9,508,222	$ 17,821,203	$ 21,342,846	$ 14,684,628	$ 15,584,835	$ 900,207	$ 15,113,631	$ 18,897,055	$ 9,055,919	$ 7,208,505	$ 9,044,919
SubTotal		**$ 31,797,832**	**$ 43,779,403**	**$ 48,082,277**	**$ 48,619,167**	**$ 46,632,286**	**$ (1,986,881)**	**$ 48,864,032**	**$ 63,789,599**	**$ 22,640,039**	**$ 22,764,609**	**$ 25,338,220**
%Change (year over year)						-3.0%		4.8%	30.5%			
%Change (Test Year vs Last Rebasing Year - Actual)									100.6%			
Billing and Collecting		$ 9,686,378	$ 10,825,140	$ 10,938,831	$ 12,410,616	$ 12,734,179	$ 323,563	$ 12,876,189	$ 13,556,552	$ 4,723,488	$ 5,540,140	$ 6,157,767
Community Relations		$ 6,392,815	$ 6,840,722	$ 7,357,653	$ 8,531,804	$ 7,568,463	$ (963,341)	$ 8,536,246	$ 10,021,881	$ 4,237,094	$ 3,657,469	$ 3,963,775
Administrative and General		$ 36,860,234	$ 39,090,480	$ 46,398,985	$ 45,758,786	$ 48,155,182	$ 2,396,396	$ 48,645,429	$ 52,642,346	$ 23,683,180	$ 24,933,322	$ 27,145,060
SubTotal		**$ 52,939,427**	**$ 56,756,341**	**$ 64,695,469**	**$ 66,701,205**	**$ 68,457,823**	**$ 1,756,618**	**$ 70,057,864**	**$ 76,220,779**	**$ 32,643,763**	**$ 34,130,931**	**$ 37,266,603**
%Change (year over year)						5.8%		2.3%	8.8%			
%Change (Test Year vs Last Rebasing Year - Actual)									44.0%			
Total	**$ 90,600,000**	**$ 84,737,259**	**$ 100,535,744**	**$ 112,777,746**	**$ 115,320,372**	**$ 115,090,109**	**$ (230,263)**	**$ 118,921,895**	**$ 140,010,378**	**$ 55,283,801**	**$ 56,895,539**	**$ 62,604,822**
%Change (year over year)		-6.5%				2.1%		3.3%	17.7%			

	2021 Last Rebasing Year OEB Approved	2021 Last Rebasing Year Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2024 Actuals	2024 Variance	2025 Bridge Year	2026 Test Year	2023 Year to Date June	2024 Year to Date June	2025 Year to Date June
Operations[4]	$ -	$ 22,289,609	$ 25,958,200	$ 26,739,431	$ 33,934,538	$ 31,047,451	$ (2,887,088)	$ 33,750,401	$ 44,892,545	$ 13,584,120	$ 15,556,104	$ 16,293,301
Maintenance[5]	$ -	$ 9,508,222	$ 17,821,203	$ 21,342,846	$ 14,684,628	$ 15,584,835	$ 900,207	$ 15,113,631	$ 18,897,055	$ 9,055,919	$ 7,208,505	$ 9,044,919
Billing and Collecting[6]	$ -	$ 9,686,378	$ 10,825,140	$ 10,938,831	$ 12,410,616	$ 12,734,179	$ 323,563	$ 12,876,189	$ 13,556,552	$ 4,723,488	$ 5,540,140	$ 6,157,767
Community Relations[7]	$ -	$ 6,392,815	$ 6,840,722	$ 7,357,653	$ 8,531,804	$ 7,568,463	$ (963,341)	$ 8,536,246	$ 10,021,881	$ 4,237,094	$ 3,657,469	$ 3,963,775
Administrative and General[8]	$ -	$ 36,860,234	$ 39,090,480	$ 46,398,985	$ 45,758,786	$ 48,155,182	$ 2,396,396	$ 48,645,429	$ 52,642,346	$ 23,683,180	$ 24,933,322	$ 27,145,060
Total	**$ -**	**$ 84,737,259**	**$ 100,535,744**	**$ 112,777,746**	**$ 115,320,372**	**$ 115,090,109**	**$ (230,263)**	**$ 118,921,895**	**$ 140,010,378**	**$ 55,283,801**	**$ 56,895,539**	**$ 62,604,822**
%Change (year over year)			18.6%	12.2%	2.3%	2.1%	0.0%	3.3%	17.7%			

Note:

1 Historical actuals going back to the last cost of service application are required to be entered by the applicant.
2 Recoverable OM&A that is included on these tables should be identical to the recoverable OM&A that is shown for the corresponding periods on Appendix 2-JB.
3 For unrecoverable OM&A Expenses see Section 2.4.3.7
4 USoA included in Operations: 5005, 5010, 5012, 5014, 5015, 5016, 5017, 5020, 5025, 5030, 5035, 5040, 5045, 5050, 5055, 5060, 5065, 5070, 5075, 5085, 5090, 5095, 5096
5 USoA included in Maintenance: 5105, 5110, 5112, 5114, 5120, 5125, 5130, 5135, 5145, 5150, 5155, 5160, 5165, 5170, 5172, 5175, 5178, 5195
6 USoA included in Billing and Collecting: 5305, 5310, 5315, 5320, 5325, 5330, 5335, 5340
7 USoA included in Community Relations: 5405, 5410, 5415, 5420, 5425
8 USoA included in Administrative and General: 5505, 5510, 5515, 5520, 5605, 5610, 5615, 5620, 5625, 5630, 5635, 5640, 5645, 5646, 5647, 5650, 5655, 5660, 5665, 5670 , 5672, 5675, 5680, 5681, 5685, 5695 & 6205 (sub-account LEAP funding)

File Number:	EB-2024-0115
Exhibit:	4
Tab:	1
Schedule:	2
Attachment:	B
IRR:	1-Staff-1(A)
Updated Date:	18-Aug-25

Appendix 2-JC
OM&A Programs Table

Programs	Last Rebasing Year (2021 OEB-Approved)	Last Rebasing Year (2021 Actuals)	2022 Actuals	2023 Actuals	2024 Bridge Year	2024 Actuals	2024 Variance	2025 Bridge Year	2026 Test Year	Variance (Test Year vs. 2024 Actuals)	Variance (Test Year vs. Last Rebasing Year (2021 OEB-Approved)
Reporting Basis	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**		**MIFRS**
Testing, Inspection & Maintenance		1,470,229	1,432,852	1,554,511	2,220,676	2,202,040	(18,636)	2,820,495	8,893,786	6,691,747	
Vegetation Management		3,811,208	6,719,596	6,256,807	6,429,900	6,935,909	506,009	5,821,640	6,148,782	(787,127)	
Underground Locates		3,272,867	3,537,992	3,388,766	4,666,136	4,036,132	(630,004)	5,285,094	6,026,998	1,990,866	
Stations Maintenance		2,670,364	2,710,136	2,888,309	3,454,452	4,789,177	1,334,725	4,167,459	5,032,662	243,485	
Distribution Overhead &		2,110,155	2,590,727	8,084,711	3,069,636	2,327,360	(742,275)	3,015,586	2,714,330	386,970	
Metering		1,594,472	1,910,279	1,486,785	1,876,320	2,625,340	749,020	1,889,940	1,970,435	(654,905)	
System Operations & 24/7		4,611,839	9,322,934	8,028,824	5,975,663	5,618,302	(357,361)	6,640,482	6,422,510	804,208	
Engineering & Design		6,729,196	7,226,347	7,826,182	9,305,985	8,057,493	(1,248,492)	8,929,602	15,223,738	7,166,245	
Distribution Support		1,179,404	3,032,462	4,433,261	6,954,095	4,306,025	(2,648,070)	5,342,365	5,442,806	1,136,780	
Minor Maintenance		1,296,558	1,317,224	1,249,745	845,754	1,545,297	699,544	990,209	1,668,856	123,559	
Collections		1,686,580	2,855,679	2,929,179	3,099,461	3,558,785	459,323	3,304,010	3,461,733	(97,051)	
Customer Billing		8,148,252	8,033,332	7,951,956	9,269,155	9,160,483	(108,671)	9,530,179	10,052,819	892,335	
Customer & Community Relations		6,855,906	7,427,949	7,837,540	9,156,102	8,194,379	(961,723)	9,213,015	10,653,072	2,458,693	
Information Management &		9,661,004	11,673,842	11,907,849	13,701,782	14,846,109	1,144,327	15,104,832	16,779,527	1,933,418	
Safety, Environment & Business		2,595,438	2,942,836	2,613,225	3,565,691	3,385,711	(179,981)	3,966,739	4,353,118	967,407	
Human Resources		3,305,466	3,820,676	4,895,585	4,365,379	3,648,295	(717,083)	4,427,770	4,761,936	1,113,641	
Supply Chain		1,364,510	1,110,151	488,833	806,845	603,439	(203,407)	833,355	988,757	385,318	
Facilities		8,416,615	9,311,472	13,250,105	10,362,236	10,236,909	(125,327)	10,508,590	10,968,501	731,592	
Finance		2,819,196	2,641,217	2,722,969	2,297,201	2,578,877	281,676	2,380,832	2,399,775	(179,101)	
Regulatory Affairs		3,022,445	3,390,106	3,473,390	3,876,138	4,095,834	219,696	4,205,328	4,842,053	746,219	
Corporate Costs		8,115,557	7,527,937	9,509,215	10,021,766	12,338,214	2,316,448	10,544,372	11,204,184	(1,134,030)	
Total	**90,600,000**	**84,737,259**	**100,535,744**	**112,777,746**	**115,320,372**	**115,090,109**	**(230,263)**	**118,921,896**	**140,010,378**	**24,920,269**	**49,410,378**

Notes:

1 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.

2 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

File Number:	EB-2024-0115
Exhibit:	4
Tab:	1
Schedule:	2
Attachment:	D
Date:	ORIGINAL

Appendix 2-JB
Recoverable OM&A Cost Driver Table[1,3]

OM&A	Last Rebasing Year (2021 Actuals)	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Bridge Year	2026 Test Year
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Opening Balance[2]	90.6	84.7	100.5	112.8	115.3	118.9
Inflation		3.0	3.5	4.7	3.7	3.6
COVID Impact	(5.9)	1.8				
Labour Costs				4.3		5.5
Proactive Distribution Maintenance						4.6
New IT Programs		1.0				6.1
Major Weather Events		7.7	8.4			
Labour Strike			5.9			
Other Costs		2.3	(5.5)	(6.5)	(0.1)	1.3
Closing Balance[2]	84.7	100.5	112.8	115.3	118.9	140.0

Notes:

1 For each year, a detailed explanation for each cost driver and associated amount is requied in Exhibit 4.

2 Opening Balance for "Last Rebasing Year" (cell B15) should be equal to the OEB-Approved amount. For purposes of assessing incremental cost drivers, the closing balance for each year becomes the opening balance for the next year.

3 If it has been more than four years since the applicant last filed a cost of service application, additional years of historical actuals should be incorporated into the table, as necessary, to go back to the last cost of service application. If the applicant last filed a cost of service application less than four years ago, a minimum of three years of actual information is required.

File Number:	EB-2024-0115
Exhibit:	4
Tab:	1
Schedule:	3
Attachment:	D
IRR:	1-Staff-1(A)
Updated Date:	18-Aug-25

Appendix 2-K
Employee Costs

	Last Rebasing Year 2021 - OEB Approved	Last Rebasing Year (2021 Actuals)	2022 Actuals	2023 Actuals	2024 Bridge Year	2024 Actuals	2024 Variance	2025 Bridge Year	2026 Test Year
Number of Employees (FTEs including Part-Time)									
Management (including executive)	122	122	137	138	133	147	14	135	141
Non-Management (union and non-union)	494	463	458	356	495	477	(17)	506	575
Total	616	585	595	494	628	624	(4)	641	716
Total Salary and Wages including ovetime and incentive pay									
Management (including executive)	$ 14,687,744	$ 14,930,179	$ 16,844,266	$ 20,425,539	$ 16,552,181	$ 19,122,328	$ 2,570,147	$ 17,473,424	$ 18,790,759
Non-Management (union and non-union)	$ 46,496,513	$ 42,697,382	$ 44,586,571	$ 36,450,884	$ 49,725,708	$ 48,155,820	$ (1,569,888)	$ 53,710,666	$ 62,713,881
Total	$ 61,184,257	$ 57,627,561	$ 61,430,837	$ 56,876,423	$ 66,277,889	$ 67,278,148	$ 1,000,259	$ 71,184,090	$ 81,504,640
Total Benefits (Current + Accrued)									
Management (including executive)	$ 3,935,256	$ 3,673,904	$ 4,171,077	$ 4,655,577	$ 4,625,460	$ 4,808,407	$ 182,947	$ 4,809,576	$ 5,319,158
Non-Management (union and non-union)	$ 12,453,947	$ 10,742,500	$ 10,939,837	$ 9,533,754	$ 13,926,495	$ 11,770,126	$ (2,156,369)	$ 14,812,321	$ 17,609,328
Total	$ 16,389,203	$ 14,416,404	$ 15,110,914	$ 14,189,331	$ 18,551,955	$ 16,578,533	$ (1,973,422)	$ 19,621,897	$ 22,928,486
Total Compensation (Salary, Wages, & Benefits)									
Management (including executive)	$ 18,623,000	$ 18,604,083	$ 21,015,343	$ 25,081,116	$ 21,177,641	$ 23,930,735	$ 2,753,094	$ 22,283,000	$ 24,109,917
Non-Management (union and non-union)	$ 58,950,460	$ 53,439,882	$ 55,526,408	$ 45,984,638	$ 63,652,203	$ 59,925,946	$ (3,726,257)	$ 68,522,987	$ 80,323,209
Total	$ 77,573,460	$ 72,043,965	$ 76,541,751	$ 71,065,754	$ 84,829,844	$ 83,856,682	$ (973,162)	$ 90,805,987	$ 104,433,126
Total Compensation Breakdown (Capital, OM&A)									
OM&A	$ 55,112,372	$ 51,913,728	$ 58,228,528	$ 56,171,648	$ 66,985,813	$ 62,750,768	$ (4,235,045)	$ 69,611,442	$ 78,735,234
Capital	$ 22,461,088	$ 20,130,237	$ 18,313,223	$ 14,894,106	$ 17,844,031	$ 21,105,914	$ 3,261,883	$ 21,194,545	$ 25,697,892
Total	$ 77,573,460	$ 72,043,965	$ 76,541,751	$ 71,065,754	$ 84,829,844	$ 83,856,682	$ (973,162)	$ 90,805,987	$ 104,433,126

1. If an applicant wishes to use headcount, it must also file the same schedule on an FTE basis.
2. If Management includes employees in a bargaining unit, this should be disclosed separately for the test year.
3. FTE includes full-time permanent and temporary (which can be full-time or part-time). Summer students and co-op students are not included, as these short-term hires are viewed as developmental in nature

Table 1 – Approved Revenue Deficiency/Sufficiency for 2021-2025 with Mid-Term Adjustments ($'000s)

	Historical Years			Bridge Years	
	2021	2022	2023	2024	2025
Return on Rate Base	$ 64,029	$ 68,503	$ 70,886	$ 76,980	$ 79,365
Distribution Expenses (not including amortization)	$ 90,600	$ 93,490	$ 96,846	$ 101,389	$ 104,927
Depreciation, amortization	$ 51,956	$ 55,472	$ 57,686	$ 59,039	$ 62,125
Payment in Lieu of Taxes	$ 891	$ 2,131	$ 6,331	$ 10,539	$ 7,283
Service Revenue Requirement	**$ 207,476**	**$ 219,596**	**$ 231,749**	**$ 247,947**	**$ 253,700**
Less Capital Stretch Factor	-	$ 776	$ 1,659	$ 2,701	$ 3,658
Service Revenue Requirement Net of Capital Stretch Factor	**$ 207,476**	**$ 218,820**	**$ 230,090**	**$ 245,246**	**$ 250,042**
Less Revenue Offsets	$ 9,680	$ 9,397	$ 9,305	$ 9,791	$ 10,003
Base Revenue Requirement	**$ 197,796**	**$ 209,423**	**$ 220,785**	**$ 235,455**	**$ 240,040**
Transformer Ownership Credit	$ 1,065	$ 1,069	$ 1,073	$ 1,079	$ 906
Revenue Requirement from Rates	**$ 198,861**	**$ 210,492**	**$ 221,858**	**$ 236,534**	**$ 240,946**
Forecasted Load at 2020 Rates	$ 188,518	$ 189,731	$ 191,002	$ 192,415	$ 193,588
Yearly Revenue Deficiency over 2020	**$ (10,343)**	**$ (20,761)**	**$ (30,856)**	**$ (44,119)**	**$ (47,358)**
Cumulative Revenue Deficiency (over 2020)	**$ (10,343)**	**$ (31,104)**	**$ (61,960)**	**$ (106,079)**	**$ (153,437)**

2.2. REVENUE DEFICIENCY/SUFFICIENCY 2026-2030

For 2026-2030, Hydro Ottawa completed a cost allocation model for each of the test years therefore the revenue deficiency/sufficiency for each of these test years were calculated using the following inputs:

- Applying prior year's historical or proposed rates; and
- Each year's forecasted revenue load and customer numbers.

Table 3 – 2025-2026 Revenue Deficiency Amounts & Cost Drivers ($'000s)[4]

Driver of Deficiency	2025 OEB-Approved	2026 Test Year	+/-	Cost Drivers	Schedule Reference
Return on Rate Base	$ 79,365	$ 91,549	$ 12,184	$97.1M increase in average net fixed assets driven mainly by increased volume and complexity of non-discretionary growth, increased renewal work due to aging equipment and failures, major storms, and inflationary pressures.	2-1-1, 2-5-1 to 2-5-9
Distribution Expenses (not including amortization)	$ 104,927	$ 140,010	$ 35,083	Increase in distribution operations expenses, cloud and information technology including cyber security Headcount growth and increases in compensation Inflationary increases	4-1-1
Amortization	$ 62,125	$ 67,205	$ 5,080	Capital addition and increase in forecast capital additions to meet customer needs and grid modernization	2-1-1
Payment in Lieu of Taxes	$ 7,283	$ 6,638	$ (645)	Changes in capital additions and the associated CCA deductions available.	6-2-1
Other Expenses - PILS	-	$ 4,590	$ 4,590	Proposed PILS capital contribution.	6-1-1 & 9-1-4
Service Revenue Requirement	**$ 253,700**	**$ 309,993**	**$ 56,293**		
Less Capital Stretch Factor	$ 3,658	-	$ (3,658)	Proposed Custom IR Rate Term does not include additional Capital Stretch Factor.	1-3-1
Service Revenue Requirement Net of Capital Stretch Factor	**$ 250,042**	**$ 309,993**	**$ 59,951**		
Less Revenue Offsets	$ 10,003	$ 11,018	$ 1,015	Changes to Other Operating Revenue rates.	6-3-1 & 6-3-4
Base Revenue Requirement	**$ 240,040**	**$ 298,976**	**$ 58,937**		
Transformer Ownership Credit	$ 906	-	$ (906)	Transformer Ownership Credit ends as of November 1, 2025.	
Revenue Requirement from	**$ 240,946**	**$ 298,976**	**$ 58,031**		

[4] Totals may not sum due to rounding.

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-52

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 3, Attachment A, pp. 13, 15-17 Appendix 2-K

QUESTION(S):

a) Please provide a revised version of Appendix 2-K that reflects 2024 actuals and the 2025 forecast using the current best available information. Please also make any necessary updates to 2026 based on the current best available information. As part of the response, please also provide the number of employees, total salary and wages (with a further breakout of overtime and incentive pay), total benefits and total compensation by the following categories: Executive, Management, Union, and Non-Union for each year 2021-2026.

b) Please explain how overtime-related compensation was forecast for the 2026 test year.

c) (P. 13) Please confirm that the temporary equivalents form part of the total FTEs shown in Appendix 2-K

d) (P. 16) Please provide a revised version of Table 10 that shows the actual vacancy- related reconciliation for the 2021-2023 period in the same format.

e) (P. 16) Please provide an updated version of Table 10 that provided the actual vacancy rate for 2024 using the current best available information.

f) (P. 16) Please explain how the forecast vacancy assumption of 8% for the 2025 and 2026 was determined.

g) (P. 17) Please explain how the number of forecast FTE vacancies (and offset by temp/part-time workers) is converted to compensation figures. As part of the response, please provide the detailed calculations that support Table 11.

h) (P. 17) Please provide the forecast reduction to 2026 compensation resulting from the application of a: (i)10% vacancy rate assumption; and (ii) 12% vacancy rate assumption.

RESPONSE(S):

a) To address this request,

- Please see Attachment 1-Staff-1(A) - Chapter 2 Appendies in the response to interrogatory 1-Staff-1 for Appendix 2-K with 2024 actuals.
- Please see Attachment 4-CCC-52(A) - Breakout of Appendix 2-K to address your request to see Appendix 2-K broken out by Executive, Management, Union, and Non-Union for each year 2021-2026.
- The 2025 forecast will not be available until October 2025 and there is no update to the 2026 information. Please see the response to Interrogatory 4-SEC-66, which shows June YTD actuals for 2025 by Appendix 2-JC OM&A programs.

b) Overtime is budgeted based on recent trends, excluding outlier years. While the overall 2024-2025 bridge years and 2026 test year is accurate, it may not align perfectly with individual employee classes because non-union and management overtime is not budgeted per employee.

c) Yes, temporary equivalents form part of the total FTEs shown in Appendix 2-K.

d) Table A shows the requested data, reconciling the number of budgeted positions to actual FTEs. Please note that for 2021-2024 actuals, the difference between the number of budgeted positions and FTEs is not solely explained by positions vacancies, but will include a variety of factors including the impact of an 84 day labour strike, short-term sick leaves, short-term acting

assignments, position overlaps to support knowledge transfer for succession, etc., these are collectively referred to FTE adjustment in the table below for the actual historical years below.

Table A - Reconciliation of Positions to FTEs in Appendix 2-K

	OEB Approved	Historical Years				Bridge Year	Test Year
	2021	2021	2022	2023	2024	2025	2026
Number of Full-Time Permanent Positions	611	617	617	617	667	667	748
Vacancy Rate	4%	10%	12%	12%	11%	8%	8%
Vacancy Assumption translated into FTEs	(24)	(62)	(74)	(74)	(73)	(56)	(60)
Temps and Part Time	28	25	28	26	36	30	28
Other FTE Adjustment		5	24	(75)	(6)		
Number of FTEs (Appendix 2K)	**616**	**585**	**595**	**494**	**624**	**641**	**716**

e) See Table A above for Table 10 of the reference with 2024 actuals. As noted in the response to d) above, the difference between positions and FTEs when looking at historical actuals is not a vacancy rate. For the actual 2024 vacancy rate, see the response to interrogatory 4.0-VECC-42.

f) Forecast vacancy rate is based on historical trending, the implementation of HR Programs that support recruiting/attraction and retention of talent and current external labour market conditions.

g) When developing the compensation budget, the first step is to determine the total cost of salaries and benefits for all HOL approved positions. From this total, an amount is subtracted for expected vacancies, calculated by applying a vacancy percentage to the overall compensation. This provides a specific dollar value for those vacant positions. The net compensation and vacancy amounts shown in Table 11 come directly from the general ledger and represent the true compensation budget.

h) See Table B below for the hypothecal scenarios requested, please refer to interrogatory response to 4.0-VECC-42 part d) for the actual vacancy rate as of June 30th, 2025 which was 9%.

Table B - 2026 Total Compensation with Requested Vacancy Rates ($M)

	Test	Requested	
	2026	2026	2026
Compensation ($)	113	113	113
Vacancy %	8%	10%	12%
Vacancy Assumption ($)	(9)	(11)	(13)
TOTAL - NET COMPENSATION ($)	**104**	**102**	**100**

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-53

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 3, Attachment B, pp. 18-19

QUESTION(S):

a) (P. 18) Please provide the analysis undertaken by Hydro Ottawa related to the comparison of operational demand hours (including the assumptions/methodology used to forecast operational demand hours) and internal labour supply.

b) (P. 19) Please provide the analysis (or internal documentation) associated with the rationalization process whereby Hydro Ottawa's executive management team reduced the "overall ask by 11.5%."

RESPONSE(S):

a) Please see the response to interrogatory 4-Staff-159 to show how operational demand hours are linked to internal labour supply. With regards to the assumption/methodology used to forecast operational demand hours, as described in the noted reference, where reasonably feasible, Hydro Ottawa forecasts labour needs by project and work program. When direct forecasting is not available, historical labour needs are used to inform future work programs.

b) Please see Attachment 1-CCC-13(A) - Rate Application Material provided to the Hydro Ottawa Limited Board of Directors, pages 15 to 20, specifically the section titled Need versus Affordability - Part 1 Financial Affordability. As part of the review and prioritization of programs to

INTERROGATORY RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION

4.0-VECC-37

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 3, Table 1, page 5

Table 1 - New Positions by Appendix 2-JC OM&A Programs

	Bridge Years		Test Years					Total
	2024	2025	2026	2027	2028	2029	2030	
Metering	3		3	2				8
Engineering & Design	17		22	13	4		2	58
Distribution Operations[1]	22		43	21				86
Customer Billing			1					1
Customer & Community Relations			1					1
Information Management & Technology	2		5					7
Safety, Environment & Business Continuity	2		4		1			7
Human Resources	1		2					3
Finance	1			1	1	1		4
Regulatory Affairs	2							2
TOTAL	**50**		**81**	**37**	**6**	**1**	**2**	**177**

QUESTION(S):

a) Please provide a table, similar to Table 1 (New Positions by Appendix 2-JC OM&A Programs) for all positions in each year 2021 through 2030 but shows the total number of position (as compared to the incremental positions in the existing table). Please add any needed rows/categories so that the new table sums to the same total number of annual FTEs as shown in Appendix 2-K.

b) Is it actually the case that HOL has not and will not be hiring any persons in 2025. If so please explain why in light of the lengthy explanations as to the pressing need for additional employees set out in the evidence.

RESPONSE(S):

a) A breakdown for FTE by Appendix 2-JC OM&A programs is provided in Table C of the interrogatory response to 4-CCC-50, question b).

b) Hydro Ottawa increased the number of positions in 2024 by 50 due to the immediate needs of the company rather than waiting until 2025. In 2024 Hydro Ottawa was also recovering from the decreased focus on hiring due to the 84-day strike in 2023. As a result, 2025 was also used to stabilize workforce vacancies by filling vacant positions from internal movements (partially due to the new positions, please see Table 2 of Attachment B - Workforce Planning Strategy) and vacancies that arose through attrition (please see Table A of response to interrogatory 4.0-VECC-42 which shows 101 new hires in 2024). Due to the total number of new employees, training new staff was a major priority for 2025, which is an important step in the retention process. Lastly, in 2025 Hydro Ottawa is focusing on starting the recruitment process for the next new group of employees.

INTERROGATORY RESPONSES TO ONTARIO ENERGY BOARD STAFF

4-Staff-171

EVIDENCE REFERENCE:

Ref. 1: Exhibit 4 / Tab 1 / Schedule 3 / Attachment A / pp. 15-16 (pdf pp. 143-144)
Ref. 2: Exhibit 4 / HOL_Attachment 4-1-3(D) / Tab App.2-K_Employee Costs

Preamble:
Reference 1 states that the vacancy assumption is determined using historical and current trending which includes attrition (retirement and resignations), internal/external environmental factors and forecasting. The actual vacancy in 2022 and 2023 peaked at 12%. However, Hydro Ottawa states recent hiring efforts have been successful and the vacancy assumption is forecasted to continue to reduce. OEB staff notes that Table 10 in the reference shows the vacancy assumption of 10% for 2024 and 8% for 2025 and 2026.

In reference 1, Table 10 in reference 1 shows the 2024-2026 reconciliation of positions to FTEs in Appendix 2K (reference 2).

QUESTION(S):

a) Please further explain or provide a spreadsheet (or a table) that support the derivation of the vacancy assumption numbers of 10% in 2024 and 8% in 2025 and 2026 based on historical and current trending which includes attrition (retirement and resignations), internal/external environmental factors and forecasting noted above.
b) Please provide the vacancy rates forecast for the rest of the CIR period (2027-2030).
c) From the vacancy rates in (b) and Table 10 in the reference, please update the table by adding 4 columns to include years 2027-2030 so that the total number of positions and FTEs add up to 177 and 100 respectively for this period.

RESPONSE(S):

a) Actual vacancy rates are calculated on both a quarterly and annual basis. The forecast takes into account upcoming eligible retirements, attrition rate trending and current market demand for specialized skill sets and/or experience. Also included in the forecast is the implementation and effectiveness of programs aimed at enhancing recruitment efforts. As stated in Attachment 4-1-3(B) - Workforce Planning Strategy, Hydro Ottawa has implemented a number of programs and initiatives to enhance external recruitment efforts and to increase awareness of career opportunities at the utility. Please see response to 4-Staff-168 for details of the effectiveness of recent recruitment activities.

In addition to the above, the external environment is also considered. Elements such as the economic climate and its impact on the labour market, changes in prospective and current employees attitudes toward employment arising post-pandemic, work from home, hybrid work environment and work-life balance attitudes. While the vacancy rate was expected at 10% in 2024, increased hiring and the implementation of programs to attract and retain employees has resulted in a lower forecast for 2025 and 2026. As at June 30, 2025, the vacancy rate is at 9%, representing a drop of 2% from 2024's actual vacancy rate.

b) As shown in Table A below, the assumed vacancy rate for 2027-2030 is 6%.

c) Table A below is an updated version of Table 10 from Attachment 4-1-3(A) - Employee Compensation Strategy that includes 2027-2030 as well as additional rows to show the new positions by year adding up to 177 total and the additional 100 FTE in 2026 compared to the 2021 OEB Approved FTEs.

Table A - 2024-2030 Reconciliation of Positions to FTEs in Appendix-2K[1]

Programs	Bridge		Test				
	2024	2025	2026	2027	2028	2029	2030
177 Positions added	50		81	37	6	1	2
Number of Full-Time Permanent Positions	667	667	748	785	791	792	794
Vacancy Assumption	10%	8%	8%	6%	6%	6%	6%
Vacancy Assumption translated into FTEs	(69)	(56)	(60)	(47)	(47)	(48)	(48)
Number of FTEs Sub total	598	611	688	738	744	744	746
Temps and Part Time	30	30	28	28	37	25	25
Number of FTEs (Appendix 2K)	628	641	716	766	780	769	771
2021 OEB Approved FTE			616				
FTE Growth from 2021			100				

[1] Totals may not sum due to rounding.

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-50

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 3, pp. 4-5
Appendix 2-JC

QUESTION(S):

a) (P. 4) Please provide the underlying data in tabular format that supports Figure 1.
b) (P. 5) Please provide a revised version of Table 1 that shows for every Appendix 2-JC OM&A program (whether or not there have been FTE additions during the period), the number of FTEs assigned to each program for each year 2021-2030. As part of the response, please also update the FTEs using the current best available information for the 2024 and 2025 bridge years (and update the 2026-2030 forecasts as necessary). Please also show each specific program that underpins “Distribution Operations” on separate lines.

RESPONSE(S):

a) Please see Tables A and B below:

Table A – Underlying Data for Figure 1 Historical Years - 2016 - 2023 ($'000s)

	Historical Years							
	2016	2017	2018	2019	2020	2021	2022	2023
Program Costs	$ 146,927	$ 167,320	$ 214,619	$ 174,863	$ 181,122	$ 170,942	$ 177,907	$ 165,324
FTEs	611	612	605	611	623	585	595	494

Table B – Underlying Data for Figure 1 Bridge and Test Years - 2024 - 2030 ($'000s)

	Bridge Years		Test Years				
	2024	2025	2026	2027	2028	2029	2030
Program Costs	$ 212,307	$ 230,290	$ 358,844	$ 363,917	$ 311,469	$ 324,524	$ 323,887
FTEs	628	641	716	766	780	769	771

b) Table C provides the breakdown of FTE by Appendix 2-JC OM&A program. It includes full time permanent and temporary positions as detailed in Note 3 of Appendix 2-K. This is in addition to Table 1 in Exhibit 4-1-3, which focuses on full time permanent positions. A breakout of Distribution Operations into its sub-programs is not possible as these programs don't have positions dedicated to them. Rather, employees charge hours to these programs based on the work being performed. In lieu of this, Table D has been added below which provides the allocation of trades time to the programs that fall under Distribution Operations.

Table C - FTEs by Appendix 2-JC OM&A Programs

	Historical Years				Bridge Years	Test Years				
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Collections	9	7	5	8	8	8	8	8	8	8
Customer Billing	30	28	25	33	27	28	29	37	29	29
Corporate Costs	3	3	3	3	3	3	3	3	3	3
Customer & Community Relations	40	44	32	36	41	42	43	43	43	43
Distribution Operations	265	266	204	272	269	310	336	337	337	337
Engineering & Design	83	87	82	103	121	142	158	162	158	160
Facilities	6	7	7	8	6	6	7	7	7	7
Finance	31	29	29	29	29	29	31	32	33	33
Human Resources	26	29	26	26	25	28	28	28	28	28
Information Management & Technology	35	37	35	42	40	45	46	46	46	46
Metering	20	18	14	24	23	26	28	28	28	28
Regulatory Affairs	8	9	7	10	14	9	10	10	10	10
Safety, Environment & Business Continuity	12	12	11	15	16	20	21	22	22	22
Supply Chain	20	18	13	16	17	18	18	18	18	18
Total	**585**	**595**	**494**	**624**	**641**	**716**	**766**	**780**	**769**	**771**

Table D - Allocation of Trades Time to Distribution Operations Programs

Allocation of Trades Time			% of Time
Capital			55%
Third Party Services			11%
Maintenance			34%
	JC OM&A Programs:		
	System Ops & 24/7	34%	
	Stations Maintenance	22%	
	Testing, Inspection & Maintenance	14%	
	Distribution O/H & U/G Maintenance	10%	
	Minor Maintenance	6%	
	Metering	6%	
	Vegetation Management	4%	
	U/G Locates	4%	
	Sub total	**100%**	
Total			**100%**

INTERROGATORY RESPONSES TO ONTARIO ENERGY BOARD STAFF

4-Staff-159

EVIDENCE REFERENCE:

OM&A - New Positions
Ref. 1: Exhibit 4 / Tab 1 / Schedule 3 / Attachment C / Table 1 / p. 3 (pdf p. 189)

QUESTION(S):

a) Please explain how Hydro Ottawa determined the number of new positions required for each OM&A Program in Table 1 for 2024 and for the 2026-2030 period.
   i) Please provide any underlying calculations to support how the new positions were determined in 2024 and for the 2026-2030 period.
   ii) Please provide job titles and the number of new positions associated with each title in a) i.

RESPONSE(S):

a) The approaches used to determine new positions required are described in Attachment 4-1-3(B) - Workforce Planning Strategy pages 18-19.

   i) Trades: Trades Workforce Planning is completed annually for the proposed and approved Work Programs for the subsequent year as described in Section 3.1.2 of Schedule 4-1-3(B) - Workforce Planning Strategy. The general approach used to prepare trade volumes is further described in this Section on pages 18-19, but a simplified view could be written as:

Labour Supply Surplus/Gap = (Current and Planned Journeypersons - Forecasted Attrition) + (Current and Planned Apprentices) + (Forecasted Internal Overtime Utilization) + (Planned External Contracted Resources) - (Forecasted Labour Demand)

Using this approach, a Workforce Planning exercise was undertaken for a five (5) year period based on the work volumes expected within the Distribution System Plan (DSP). It is important to note that a five year forecast provides general work volumes, an annual Workforce Planning exercise is undertaken year-over-year to determine a more specific number of positions required in each trade.

Leadership & Non-Trades: The process followed for Non-Trade positions is outlined in Section 3.1.3 of Schedule 4-1-3(B) - Workforce Planning Strategy. Under this approach, current and future needs were reviewed relative to the Work Programs and drivers listed throughout Section 3 of Schedule 4-1-3(C) - Workforce Growth.

ii) Table A below provides the job titles of the new positions associated with the OM&A programs.

The general work volumes included in the five year forecast as discussed in (i) use the best available data and information available at the time, however the specific hiring in each trade is reviewed and approved annually as more concrete work volume data becomes available. As such, trades positions under the Distribution Operations and Metering programs are included in Table A as “Direct Labour”, as the specific breakdown of the new trades positions is subject to change. These positions are generally at the same compensation level and therefore the allocation of positions do not impact compensation forecasts. To reiterate, while the general volume of work is forecasted at this time, greater specificity around the volume of work that will be assigned to specific trade positions is produced annually and informs annual hiring requirements.

Since the majority of positions are being added within Distribution Operations and Engineering & Design, these OM&A programs are further broken down between Direct Labour and Business Support, as shown in 4-1-3(C) - Workforce Growth on Table 5, page 15.

Table A - Job Titles of New Positions by OM&A Program

Appendix 2-JC OM&A Program	Job Title	Year						Total
		2024	2026	2027	2028	2029	2030	
Metering	**Direct Labour**	3	3	2				8
Engineering & Design	**Engineering**							
	Distribution Engineer	3	5	6				14
	Grid Modernization Engineer	3	2					5
	Quality Assurance Engineer			1				1
	Smart Grid Engineer	4						4
	Standards Engineer	1						1
	Telecommunications Engineer	2						2
	Project Execution Planning							
	Distribution Design Layout Agent				2			2
	Engineering Technologist		1	3				4
	Project Administrator		2		1			3
	Project Coordinator		1	2			1	4
	Work Planner		3				1	4
	Work Scheduler		3					3
	Resource Scheduling Agent		1					1
	Leadership							

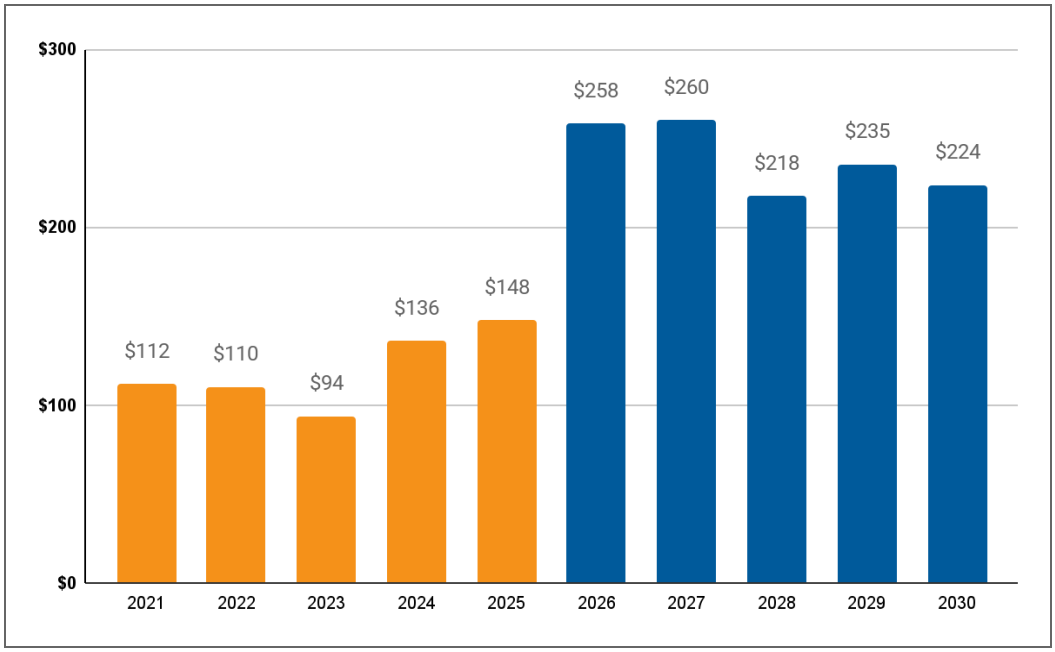
Appendix 2-JC OM&A Program	Job Title	Year						Total
		2024	2026	2027	2028	2029	2030	
	Supervisor, Distribution Design Service Layout				1			1
	Supervisor, Distribution System Integration	1						1
	Supervisor, Engineering Technologists			1				1
	Supervisor, P&C		1					1
	Vice President	2						2
	Director, Program Management	1						1
	Supervisor, Distributed Energy Resources		1					1
	Supervisor, Major Projects		1					1
	Supervisor, Program Oversight		1					1
Distribution Operations	**Direct Labour**	22	27	19				68
	System Operations							
	Vault Maintenance Technical Specialist		1					1
	System Operations Planners		2					2
	Contractor Management & Oversight							
	Plant Inspector		4					4
	QA Inspector		2					2
	Utility Forestry Inspector		1					1
	Leadership							

Appendix 2-JC OM&A Program	Job Title	Year						Total
		2024	2026	2027	2028	2029	2030	
	Supervisor, Contractor Management		1					1
	Supervisor Control Room		2					2
	Supervisor, Stations		1					1
	Engineering							
	Project Engineer		1	2				3
	Data Engineer		*1*					1
Customer Billing	*Programmer/ Analyst*		1					1
Customer & Community Relations	*Programmer/ Analyst*		1					1
Information Management & Technology	*Cloud Engineer*		1					1
	Cybersecurity Engineer	1	1					2
	Manager, IT Program Management	1						1
	Manager, Systems Programs		1					1
	Supervisor, OT Cybersecurity		1					1
	System Engineer		1					1
Safety, Environment & Business Continuity	*Business Continuity Specialist*	1	1					2
	Instructional Designer		1					1
	Manager, Business Continuity	1						1
	Manager, Sustainability				1			1
	Sustainability Specialist		2					2
Human Resources	*HR Advisor*	1	1					2

Appendix 2-JC OM&A Program	Job Title	Year						Total
		2024	2026	2027	2028	2029	2030	
	HR Technology Specialist		1					1
Finance	*Accountant*	1		1	1	1		4
Regulatory Affairs	*Advisor, Regulatory Compliance and Projects*	1						1
	Supervisor, Regulatory Compliance and Projects	1						1
Total		**50**	**81**	**37**	**6**	**1**	**2**	**177**

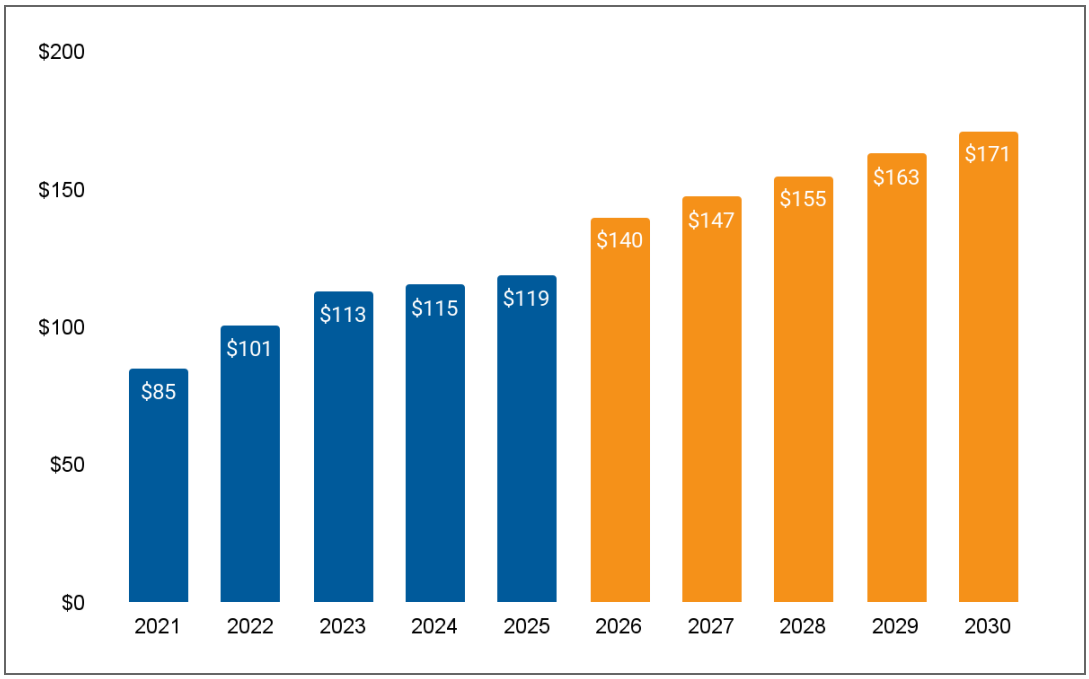
1

Figure 2 - Summary of 2021-2030 Annual Capital Expenditures ($'000 000s)



The proposed increase in capital necessitates a corresponding increase in OM&A expenditures, as shown in Figure 3 below to hire and retain the necessary resources to support the execution of the capital program, and to fund enhanced testing and asset inspection programs to manage system health and reliability with constrained levels of renewal investment relative to the condition needs of the assets. Furthermore, escalating IT costs associated with extreme weather resilience and the implementation of advanced technologies, including cyber security measures for digital and AI-driven systems, must be factored into the OM&A budget to ensure operational continuity and security amidst evolving environmental and technological challenges.

Figure 3 - Summary of 2021-2030 Annual OM&A Expenses ($'000 000s)[4]



2. RATE-SETTING OPTIONS

There are three incentive rate-setting (IR) options for electricity distributors:

- **Price Cap IR:** Base rates are set through a cost of service process for the first year and the rates for the following four years are adjusted using an inflationary index minus a productivity factor.
- **Custom IR:** Rates are set for five years considering a five-year forecast of the utility's costs and sales volumes. This method is intended to be customized to fit the specific utility's circumstances.
- **Annual IR Index:** Existing rates are escalated using the annual adjustment under Price Cap IR, without a rebasing cost of service review.

[4] 2027-2030 illustrates the OM&A outcome of Hydro Ottawa's Custom Revenue OM&A Factor.

INTERROGATORY RESPONSES TO SCHOOL ENERGY COALITION

1-SEC-9

EVIDENCE REFERENCE:

[Ex.1-3-1, p.4]

QUESTION(S):

Hydro Ottawa says, “The proposed increase in capital necessitates a corresponding increase in OM&A expenditures, as shown in Figure 3 below to hire and retain the necessary resources to support the execution of the capital program, and to fund enhanced testing and asset inspection programs to manage system health and reliability with constrained levels of renewal investment relative to the condition needs of the assets.” Is it Hydro Ottawa’s view that there are no reductions in OM&A spending as a result of undertaking capital work (i.e. less maintenance regarding on new assets, etc.)?

RESPONSE(S):

Please refer to the responses to parts (a) and (b) of interrogatory 2-Staff-56 for more information regarding OM&A spending as a result of undertaking capital work.

INTERROGATORY RESPONSES TO ONTARIO ENERGY BOARD STAFF

2-Staff-56

EVIDENCE REFERENCE:

Ref. 1: Exhibit 2 / Tab 5 / Schedule 5 / p. 4 (pdf Exhibit 2 part 4, p. 4)

Preamble:
Hydro Ottawa states that “system renewal investments prioritize replacing high-risk assets to mitigate immediate failures, they also require increased O&M spending on testing, inspection, and maintenance for remaining high-risks assets [...] System Service investments, which support grid expansion and the integration of new technologies, will inherently increase O&M costs due to the greater number of assets and specialized maintenance needs associated with advanced technologies”

QUESTION(S):

a) The premise of this claim appears to be contradictory: replacing more poor condition assets requires spending more on the remaining reduced set of poor condition assets. Please explain why "substantial system renewal investments", which presumably involves replacing a greater than historical volume of high-risk assets that would otherwise absorb a disproportionate level of annual maintenance spending compared with lower risk assets, "require increased O&M spending on testing, inspection and maintenance for remaining high-risks assets".

b) Historically, system service capital investments to modernize the grid have at least partly been justified by claims of the O&M cost savings expected to accrue to the investments, because, for example:

- The associated operating flexibility enables remote sectionalizing and switching, allowing a larger proportion of interrupted load to be restored prior to rolling a truck
- Improved fault sensing rapidly & accurately locates faults, enabling more efficient dispatch and restoration efforts

- installing modern condition monitoring sensors on high-value equipment such as transformers and breakers enables real-time warnings of emerging operational risks, permitting extended manual inspection cycles and helping the utility to focus its attention on problem assets.

Please discuss why the proposed tripling of historical levels of system service investment (which already exceeded OEB approved amounts) are now counter-intuitively expected to increase rather than reduce O&M costs.

RESPONSE(S):

a) Asset condition (represented by health index), is a key input into the Copperleaf Predictive Analytics (PA) model, which then forecasts asset degradation and calculates future asset risk levels. This allows Hydro Ottawa to make more informed, risk-based investment decisions for system renewal, as discussed in Section 4.4.1 Implementation of Predictive Analysis in Schedule 2-5-4 - Asset Management Process.

As outlined in Section 2.3.2 of Schedule 2-5-1 - Distribution System Plan Overview, the investment required to replace all assets that are projected to be in degraded condition by 2030 is estimated at $862M - this would effectively reduce the percentage of assets in degraded condition to 0% by 2030. Competing financial priorities, notably growth, electrification, grid modernization, and resilience, render this investment level impractical. Alternatively, Hydro Ottawa is proposing an investment of $261M over the 5-year period, which is projected to result in 8% of the overall assets being in degraded condition by 2030.

Consequently, not all high risk assets are slated to be replaced through the 2026-2030 period. Hydro Ottawa's risk-mitigation asset renewal strategy relies heavily upon condition information from maintenance inspections. Tackling the backlog of assets in a deteriorated condition but not replaced by 2030 (still posing a high risk to the system) necessitates adjustments to both the frequency and scope of the distribution and stations testing, inspection, and maintenance programs. To further improve upon the condition data accuracy, Hydro Ottawa will implement advanced inspection technologies enabling targeted maintenance and improved asset health

assessments. This helps refine future renewal plans, optimize replacement schedules, and inform the design of even more resilient new systems.

b) The proposed tripling of historical levels of system service investment is primarily driven by the Capacity Upgrade program and not necessarily the grid modernization initiatives outlined in the examples provided in the question. For more details please refer to the response to part (a) of interrogatory 2-Staff-108.

While modernizing the grid with technology such as remote sectionalizing, improved fault sensing, and condition monitoring is intended to reduce costs associated with truck rolls and reactive repairs, new smart devices introduce a new set of maintenance requirements. The expanded maintenance programs for this advanced equipment, along with the need for specialized training and technical support, will necessitate an increase in spending. As a result, the costs associated with maintaining new technologies are projected to offset and even surpass the savings from improved operational productivity, leading to a counter-intuitive increase in overall O&M costs.

7. IT SPENDING ASSESSMENT BENCHMARKING

Hydro Ottawa's operational effectiveness relies heavily on complex IT systems that support frontline operations (e.g., geographic information systems, outage management, and supervisory control) and back-office processes (e.g., customer information, billing, and enterprise resource planning [ERP]). The complexity of these systems is increasing as the electricity distribution sector experiences a convergence of operational systems and enterprise information systems.

Given this reality, and Hydro Ottawa's commitment to leveraging innovative technologies to enhance the customer experience and improve productivity, the utility commissioned a benchmarking study focused on IT spending. This study aimed to assess the reasonableness of Hydro Ottawa's IT expenditures and provide valuable evidence for this application.

To this end, Hydro Ottawa commissioned Gartner to conduct an IT Spending Assessment Benchmark. This comprehensive study assessed the utility's IT spending allocation and overall expenditure against specific metrics, benchmarking it against a custom peer group of nine utilities from Canada, the USA, Europe, and New Zealand, as well as against Gartner's comprehensive IT Key Metrics Data for the utilities sector. Gartner determined that this peer group was representative of electricity utility peers and suitable for a valid benchmarking analysis.

Gartner’s report encompassed two key areas of analysis: (i) benchmarking the total IT spending envelope; and (ii) benchmarking the IT spending based on allocations. This analysis leveraged 2023 fiscal year data provided by Hydro Ottawa and the selected peer group members.

Gartner’s Enterprise IT Spending and Staffing benchmarking analysis is attached in Attachment 1-3-3(E) - Hydro Ottawa Enterprise IT Spending and Staffing Benchmark.

7.1. KEY FINDINGS

The study results revealed that Hydro Ottawa performed well compared to Gartner's peer group. The utility's IT spending was lower than its peer group average, with a higher spending allocation towards growth and transformation activities, reflecting the utility's focus on digital transformation and enhanced customer experience. IT staffing levels as a percentage of the total workforce were higher than the peer group's, but the utility relied less on external services. IT spend per employee was also higher due to Hydro Ottawa having a lower number of employees than the peer group average. Hydro Ottawa's software spending was notably higher due to the transition to cloud-based solutions. Overall, Hydro Ottawa spends less, manages a smaller IT workforce (and total workforce), and allocates more IT spending towards growth and transformation initiatives than its peers. The results are summarized in Table 5 below.

Table 5 - Results of Gartner's IT Spending Assessment

Metric	Hydro Ottawa	Peer Average
IT Spending as a % of Revenue	2.50%	2.52%
IT Spending as a % of Operating Expenses	2.80%	3.14%
IT Spend per Employee	$ 42,502	$ 36,763
IT Staffing Levels (% of total workforce)	12.9%	11.7%
IT Allocation to Growth/Transformation	52%	26%

7.2. INCORPORATING RESULTS INTO APPLICATION

Hydro Ottawa believes that Gartner's study confirmed that the utility's IT strategy and investments are consistent with the industry peer group, establishing that it is well-positioned to execute on its 2026-2030 rate plan.

Looking ahead, the utility has decided to defer certain IT investments and prioritize others between 2026 and 2030 to remain focused on IT cost management while balancing the needs of the business and customers.[13] Specifically, Hydro Ottawa will focus on transitioning to cloud

[13] For example, the ERP replacement project originally planned for the 2021-2025 rate term was deferred. See Schedule 2-5-5 - Capital Expenditure Plan for details.

computing, improving cyber security infrastructure, executing its meter-to-cash program, advancing enterprise applications and customer engagement platforms. The core strategy and reasoning for these investments are centered on the utility's digital strategy to enhance: (1) customer experience, (2) employee experience, (3) productivity and operational effectiveness, (4) grid automation and modernization, and (5) cyber security and business continuity. This approach is consistent with Gartner's findings, in that the utility will allocate more of its IT spending towards growth and transformation projects. For more information on IT programs, please refer to Schedule 2-5-9 - General Plant Investments, Attachment 4-1-1(A) - Transition to Cloud Computing, and Attachment 1-3-4(B) - Digital Strategy.

Hydro Ottawa is reinforcing the importance of effectively executing its IT program by including a Cyber Security Program Health metric in its Schedule 1-3-2 Proposed Annual Reporting - 2026-2030. The growth and transformation investments in IT infrastructure are necessary as the evolution towards digital solutions creates opportunities for new service offerings, but also exposure to cyber security risks.

8. COMPENSATION BENCHMARKING

Several factors motivated the preparation of this study. Compensation costs remain a significant portion of Hydro Ottawa's overall OM&A expenses, aligning with historical and industry trends. Additionally, the OEB has expressed interest in utilities benchmarking their compensation costs. Specifically, the OEB's Handbook for Utility Rate Applications outlines expectations for utilities to address aspects of their compensation strategies, including "how target salaries are compared to external benchmarks."[14]

Accordingly, Hydro Ottawa commissioned Mercer Canada (Mercer) to conduct a comprehensive review of its employee compensation packages, comparing them to similar roles within the utility sector and the general market (i.e., other economic sectors). This assessment included cash compensation and benefits for a sample of 20 positions, spanning various levels within both

[14] Ontario Energy Board, *Handbook for Utility Rate Applications* (October 13, 2016), page 19.

unionized and management categories. The sample encompasses a range of positions essential to Hydro Ottawa's operations, including core operational positions, as well as technical, professional, and para-professional roles that support the business. Of the 20 positions selected, 6 were management roles while 14 were from the unionized segments of the utility's workforce.[15]

Mercer's Market Compensation Review benchmarking analysis is available as Attachment 1-3-3(F) - Compensation Benchmarking Study.

8.1. KEY FINDINGS

In line with best practices for statistical integrity and standard reporting, Mercer's study defined "competitive" salaries and total cash compensation as falling within +/- 10% of the median job rate for each market and industry comparator.[16]

The study found that compensation for Hydro Ottawa's core operational roles (e.g., Manager, Distribution Operations; Supervisor, Distribution Operations; Distribution Engineer; and System Operator) aligned well with the utility and general industry market benchmarks. However, the System Designer position was found to be above market.

Some roles, primarily unionized support positions, were compensated above the general market rate but typically aligned with the market median (P50) for the utility sector.

Regarding employer-paid benefits (i.e., insurance, wellness benefits, and pension contributions), Mercer found that Hydro Ottawa's contributions are generally in line with market standards for non-executive employees. Specifically, when compared to the Ontario Public

[15] All of the positions from the management group of employees that were within the scope of the study were non-executive positions.
[16] The market median job rate is also referred to as P50.

Sector, where such benefits account for 20% to 25% of base salary, Hydro Ottawa's benefits were found to be within 19% to 24% of base salary.

Overall, these findings indicate that Hydro Ottawa's total compensation package, including cash compensation and employer-paid benefits, is aligned with market and industry standards.

8.2. INCORPORATING RESULTS INTO APPLICATION

Hydro Ottawa views the results of Mercer's benchmarking analysis as a general validation of the utility's approach to managing compensation costs. The study's findings indicate a broad alignment between the average base salaries for various Hydro Ottawa positions and comparable jobs within the utility industry and the general market. These results encourage the utility to maintain its prudent approach to controlling total compensation costs, while ensuring that its compensation packages remain competitive enough to attract and retain a highly-skilled workforce and foster a performance-driven workplace culture.

For positions whose job rates exceed the market median by more than 10%, Hydro Ottawa will continue to monitor future increases and periodically conduct external benchmarking to ensure that average base salaries remain broadly aligned with industry standards.

As acknowledged in the OEB's Handbook for Utility Rate Applications, comparing target salaries to external benchmarks is just one aspect of a comprehensive employee compensation strategy. Other crucial elements may include formal policies for establishing and regularly reviewing salary scales, as well as performance-based pay structures. Hydro Ottawa's approach to employee compensation encompasses these elements alongside external benchmarking. For a more detailed explanation of the utility's compensation philosophy and its associated components, including the framework for evaluating employee performance and contributions to the utility's strategic objectives, please refer to Schedule 4-1-3 - Workforce Staffing and Compensation and the accompanying information in Attachment 4-1-3(A) - Employee Compensation Strategy, and Attachment 4-1-3(B) - Workforce Planning Strategy.

INTERROGATORY RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION

4.0-VECC-42

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 3

Table 10 – 2024-2026 - Reconciliation of Positions to FTEs in Appendix 2K

	Bridge Years		Test Year
	2024	**2025**	**2026**
Number of Full-Time Permanent Positions	667	667	748
Vacancy Assumption	10%	8%	8%
Vacancy Assumption translated into FTEs	(69)	(56)	(60)
Number of FTEs Sub total	**598**	**611**	**688**
Temps and Part Time	30	30	28
Number of FTEs (Appendix 2K)	**628**	**641**	**716**

QUESTION(S):

a) HOL's plan calls for the hiring of 81 full time positions in 2026. How many full time positions has HOL hired in each of the years 2021 through 2025?

b) From the time a position is approved by management for hiring what is the normal timeline for successful recruitment (e.g. job specification review, advertisement, short list selection, secondary interviews or selection, offer and arrival for work).

c) Do line managers (i.e. managers not from human resource) required to carry out interviews for employees in their departments?

d) Please provide the annual vacancy rate for 2021 to 2025 for full time positions (if not the same as the attrition rate shown 4-1-3 Attachment B page 10)

RESPONSE(S):

a) In each of the years 2021 through 2025 Hydro Ottawa has hired the following numbers of full time positions:

Table A - Number of Full Time Positions Hired, 2021-2025

Year	Number of FT Positions Hired
2021	37
2022	40
2023	36
2024	101
2025 (June 30th)	28

b) Please see response to interrogatory 4.0-VECC-41.

c) Yes, line managers are required to carry out interviews for employees in their departments.

d) The annual vacancy rate for 2021 to 2025 is provided in Table B below.

Table B - Annual Vacancy Rate for Full Time Positions, 2021-2025

Year	Vacancy Rate
2021	10%
2022	12%
2023	12%
2024	11%
2025 (June 30th)	9%

Mercer

welcome to brighter

Hydro Ottawa

Market Compensation Review

January 2025

A business of Marsh McLennan

Introduction

- As part of the Total Compensation Program Review, Hydro Ottawa has asked Mercer Canada (“Mercer”) to conduct a market benchmarking review to assess the competitiveness of Hydro Ottawa’s average salaries and target total cash compensation for its unionized and management group roles against relevant market comparators.

- This review has been conducted as a part of Hydro Ottawa’s rate application process (every five years) which was last done in 2019.

- Mercer utilized the following data sources for the review:
  - 2024 Canadian Mercer benchmark databases
  - MEARIE data from 2022 (provided by Hydro Ottawa) for management positions
  - MEARIE unionized positions data from 2018, 2019, 2020, 2021, 2022, 2023 and 2024

- In addition, Mercer conducted a comprehensive review of the employer-paid portion of insurance and wellness benefits, as well as pension, paid to all positions within the organization. This information was used to calculate the cost of benefits as a percentage of payroll and compared to typical market norms.

Benchmarking Review

1

Methodology

Data Sources and Reference Market

- **Data Source:** Mercer Benchmarking Database (MBD) and MEARIE Survey Data ("MEARIE")
- **Reference Market:** Compensation peer groups should be representative of the company's market for talent (i.e., where the talent could be recruited from and/or lost to)
  - In determining the market for talent for Hydro Ottawa, Mercer gave consideration to the following:

Factors	Mercer's comment	Selection criteria retained for Hydro Ottawa
Geography 	• Regions where Hydro Ottawa could source qualified talent when recruiting and where talent could potentially leave to join other organizations, as well as the location of company operations	• MBD – National (Canada) • MEARIE – Ontario
Industry 	• A primary consideration in selecting appropriate peers; organizations operating in the same or similar industries likely have jobs that require similar skills and capabilities • Remain consistent with the 2019 compensation review	• All data excluding Mining and Retail • MEARIE - All Organizations **Note: Since the last review, Mercer has integrated OSPE survey data into MBD All Data survey*
Size 	• Drives span of control, scope of accountability, and magnitude of decision-making, which directly correlate to pay levels	• All sizes

- Mercer Benchmark Databases are effective as of April 1, 2024.

Methodology

Data Confidentiality

- Mercer Benchmark Databases are effective as of April 1, 2024.
- MEARIE survey data has been aged to reflect the annual median salary increases since 2018 (as reported in Mercer's Compensation Planning Surveys)

YEAR	2018	2019	2020	2021	2022	2023	2024
Aging Factor	20.09%	16.82%	13.75%	10.87%	7.64%	3.5%	Point of Comparison

- Throughout this report, data is incumbent-weighted and reported in thousands of dollars
- Mercer generally considers compensation to be **competitive** if it **falls within +/-10%** of the market median (P50)

Hydro Ottawa Data

- The average salary for each position at Hydro Ottawa has been used to compare positions to the market median job rate (P50)

Definition of Statistics

- 25th Percentile (%ile) (P25): Twenty-five percent of observations are less than this amount
- 50th Percentile (%ile) or Median (P50): Fifty percent of observations are less than this amount
- 75th Percentile (%ile) (P75): Seventy-five percent of observations are less than this amount

Data Confidentiality

- To preserve confidentiality and ensure data reliability, Mercer requires a certain minimum number of data points to report the following statistics:

Statistics	Number of data points needed
Average ("Avg")	• 4 data points
50th percentile/median ("P50")	• 4 data points
25th/75th percentile ("P25"/"P75")	• 5 data points

- In cases where insufficient data is available, a "--" is shown

Executive Summary

- Twenty (20) jobs were reviewed including those core to the business, as well as technical, professional and para-professional roles that support the business. The jobs included in the study are representative of both management and non-management with seven (7) management jobs and thirteen (13) non-management jobs at different levels of each category reviewed.
- The jobs that are core to the operational business – Manager, Distribution Operations, Supervisor, Distribution Operations, Distribution Engineer and the trades jobs like System Operator were all found to be very well aligned with the utility market comparators as well as with the general industry market comparators, however, in the case of the Systems Designer, it is above market when compared to both general industry market comparators and utility market comparators.
- Some jobs, generally unionized support roles, were found to be higher than the general industry market comparators but in most cases were still at market (+/-10%) of P50 of the utility market comparators.
- Employer-paid benefits (i.e. insurance and wellness benefits and pension contributions) are generally aligned with what is typically seen in the market for non-executive employees. Specifically, when compared to the Ontario Public Sector where such benefits account for 20% to 25% of base salary, Hydro Ottawa's benefits were found to be within 19% to 24% of base salary.

Detailed Findings

2

Benchmarking Results *(1/4)*

Incumbent(s) below market (< 10%) | Incumbent(s) within +/- 10% of the market | Incumbent(s) above market (> 10%)

- The table below present the positioning for Hydro Ottawa's roles on Base Salary and Target Total Cash (base salary + short-term incentives) basis:

All compensation data in $CAD 000s

					HOL	Base Salary						As % of P50	HOL	Target Total Cash Compensation						As % of P50
Job #	HOL Position Title	Benchmark Title	Survey	Market Scope	Actual	Orgs #	Obs #	P25	P50	P75	Avg	Actual	Target TCC	Orgs #	Obs #	P25	P50	P75	Avg	Target TCC
1	Manager, Distribution Operations	--	MBD	National	**$134**	--	--	--	--	--	--	**--**	**$147**	--	--	--	--	--	--	**--**
1	Manager, Distribution Operations	Manager Operations	MEARIE	Provincial (Ont)	**$134**	20	35	$131	$135	$151	$140	**99%**	**$147**	20	35	$131	$146	$166	$149	**101%**
2	Supervisor, Distribution Operations	--	MBD	National	**$123**	--	--	--	--	--	--	**--**	**$123**	--	--	--	--	--	--	**--**
2	Supervisor, Distribution Operations	Line Supervisor	MEARIE	Provincial (Ont)	**$123**	24	113	$115	$117	$124	$119	**105%**	**$123**	24	113	$116	$121	$134	$125	**102%**
3	Distribution Engineer	Electrical Engineering - Senior Professional (P3)	MBD	National ex Mining	**$113**	97	578	$106	$116	$127	$117	**98%**	**$113**	81	495	$109	$122	$132	$121	**93%**
3	Distribution Engineer	Project Engineer	MEARIE	Provincial (Ont)	**$113**	16	34	$104	$110	$122	$111	**103%**	**$113**	16	34	$105	$111	$132	$115	**102%**
4	System Operator	--	MBD	National	**$112**	--	--	--	--	--	--	**--**	**$112**	--	--	--	--	--	--	**--**
4	System Operator	System Control Operator	MEARIE	Provincial (Ont)	**$112**	12	12	$100	$104	$108	$106	**108%**	**$112**	--	--	--	--	--	--	**--**
5	Network Administrator	IT Data/Voice Network Administration - Senior Professional (P3)	MBD	National ex Mining	**$108**	86	689	$89	$100	$110	$101	**108%**	**$108**	78	632	$93	$103	$117	$105	**105%**
5	Network Administrator	Systems/Program Administrator or Applications/Systems Support Professional	MEARIE	Provincial (Ont)	**$108**	15	21	$94	$99	$110	$100	**109%**	**$108**	15	21	$98	$103	$116	$105	**105%**

Notes:

- **Generally, compensation benchmarking is well aligned to comparative market.**

Benchmarking Results *(2/4)*

Incumbent(s) below market (< 10%) | Incumbent(s) within +/- 10% of the market | Incumbent(s) above market (> 10%)

- The table below present the positioning for Hydro Ottawa's roles on Base Salary and Target Total Cash (base salary + short-term incentives) basis:

All compensation data in $CAD 000s

					HOL	Base Salary						As % of P50	HOL	Target Total Cash Compensation						As % of P50
Job #	HOL Position Title	Benchmark Title	Survey	Market Scope	Actual	Orgs #	Obs #	P25	P50	P75	Avg	Actual	Target TCC	Orgs #	Obs #	P25	P50	P75	Avg	Target TCC
6	Powerline Technician	--	MBD	National ex Mining	**$104**	--	--	--	--	--	--	**--**	**$104**	--	--	--	--	--	--	**--**
6	Powerline Technician	Lineperson	MEARIE	Provincial (Ont)	**$104**	30	30	$97	$101	$104	$100	**103%**	**$104**	--	--	--	--	--	--	**--**
7	Management Accountant	Accounting - Senior Professional (P3)	MBD	National ex Mining	**$95**	433	2128	$89	$100	$115	$102	**96%**	**$95**	383	1914	$96	$109	$126	$109	**87%**
7	Management Accountant	Accountant	MEARIE	Provincial (Ont)	**$95**	3	3	$90	$107	$111	$103	**89%**	**$95**	--	--	--	--	--	--	**--**
8	System Designer	Electrical Engineering Technologist/Technician - Specialist Para-Professional (S4)	MBD	National ex Mining	**$113**	12	65	--	$85	--	$87	**132%**	**$113**	10	63	--	$86	--	$87	**131%**
8	System Designer	[(1)] Design Technician / Engineering Technician / Engineering Technologist	MEARIE	Provincial (Ont)	**$113**	27	27	$96	$101	$106	$101	**112%**	**$113**	--	--	--	--	--	--	**--**
9	Communications Officer	General Communications & Corporate Affairs - Experienced Professional (P2)	MBD	National ex Mining	**$85**	144	386	$75	$83	$92	$84	**102%**	**$85**	133	351	$78	$88	$97	$89	**97%**
9	Communications Officer	Communications Specialist	MEARIE	Provincial (Ont)	**$85**	14	18	$81	$87	$94	$88	**98%**	**$85**	14	18	$82	$89	$97	$91	**95%**
10	Supervisor, Billing	Billing & Invoicing - Team Leader (Para-Professionals) (M1)	MBD	National ex Mining	**$92**	32	54	$74	$84	$93	$83	**110%**	**$92**	23	36	$76	$91	$98	$91	**102%**
10	Supervisor, Billing	Supervisor Customer Service and/or Billing and/or Collections	MEARIE	Provincial (Ont)	**$92**	20	40	$92	$103	$116	$104	**89%**	**$92**	20	40	$96	$109	$124	$110	**85%**

Notes:

1. Blend of Design Technician / Engineering Technician / Engineering Technologist

Benchmarking Results *(3/4)*

Incumbent(s) below market (< 10%) | Incumbent(s) within +/- 10% of the market | Incumbent(s) above market (> 10%)

- The table below present the positioning for Hydro Ottawa's roles on Base Salary and Target Total Cash (base salary + short-term incentives) basis:

All compensation data in $CAD 000s

Job #	HOL Position Title	Benchmark Title	Survey	Market Scope	HOL	Base Salary						As % of P50	HOL	Target Total Cash Compensation						As % of P50
					Actual	Orgs #	Obs #	P25	P50	P75	Avg	Actual	Target TCC	Orgs #	Obs #	P25	P50	P75	Avg	Target TCC
11	Senior Procurement Agent	Procurement - Experienced Professional (P2)	MBD	National ex Mining	**$92**	332	1862	$70	$79	$89	$80	**116%**	**$92**	303	1721	$72	$82	$94	$84	**112%**
12	Warehouse Attendant	Warehouse Shipping & Receiving - Senior Para-Professional (S3)	MBD	National ex Mining	**$89**	128	1322	$54	$60	$67	$61	**150%**	**$89**	120	1305	$55	$60	$68	$62	**148%**
12	Warehouse Attendant	[2] Stockkeeper Material Handler Stockperson	MEARIE	Provincial (Ont)	**$89**	38	38	$51	$78	$59	$79	**114%**	**$89**	--	--	--	--	--	--	**--**
13	IT Service Desk Technician	General IT User Support - Entry Professional (P1)	MBD	National ex Mining	**$85**	124	796	$56	$61	$70	$64	**139%**	**$85**	113	692	$59	$65	$72	$67	**131%**
13	IT Service Desk Technician	--	MEARIE	Provincial (Ont)	**$85**	--	--	--	--	--	--	**--**	**$85**	--	--	--	--	--	--	**--**
14	GIS/CAD Technician	Geographic Information Systems (GIS) - Entry Professional (P1)	MBD	National ex Mining	**$75**	16	56	$62	$70	$78	$70	**107%**	**$75**	14	44	$61	$67	$78	$70	**112%**
14	GIS/CAD Technician	[3] Technical DraftsPerson Draftsperson	MEARIE	Provincial (Ont)	**$75**	4	4	--	--	--	--	**--**	**$75**	--	--	--	--	--	--	**--**
15	Customer Contact Agent	General Customer Service - Experienced Para-Professional (S2)	MBD	National ex Mining	**$78**	114	1785	$46	$51	$57	$51	**152%**	**$78**	105	1691	$46	$53	$58	$53	**147%**
15	Customer Contact Agent	[4] Customer Service Rep. / Customer Service Clerk	MEARIE	Provincial (Ont)	**$78**	29	29	$64	$70	$75	$70	**111%**	**$78**	--	--	--	--	--	--	**--**

Notes:

2. Blend of Stockkeeper/ Material Handler/ Stockperson
3. Blend of Technical DraftsPerson / Draftsperson
4. Blend of Customer Service Rep. / Customer Service Clerk

Benchmarking Results *(4/4)*

Incumbent(s) below market (< 10%) | Incumbent(s) within +/- 10% of the market | Incumbent(s) above market (> 10%)

- The table below present the positioning for Hydro Ottawa's roles on Base Salary and Target Total Cash (base salary + short-term incentives) basis:

All compensation data in $CAD 000s

Job #	HOL Position Title	Benchmark Title	Survey	Market Scope	HOL	Base Salary						As % of P50	HOL	Target Total Cash Compensation						As % of P50
					Actual	Orgs #	Obs #	P25	P50	P75	Avg	Actual	Target TCC	Orgs #	Obs #	P25	P50	P75	Avg	Target TCC
16	Billing Service Associate	Billing & Invoicing - Experienced Para-Professional (S2)	MBD	National ex Mining	**$75**	67	553	$53	$59	$65	$59	129%	**$75**	61	477	$54	$60	$66	$60	125%
16	Billing Service Associate	Billing Clerk/ Cust Accts Rep	MEARIE	Provincial (Ont)	**$75**	21	21	$68	$72	$77	$72	105%	**$75**	--	--	--	--	--	--	--
17	Collection Agent	Credit & Collections - Experienced Para-Professional (S2)	MBD	National ex Mining	**$75**	67	295	$51	$55	$62	$56	138%	**$75**	63	265	$52	$57	$64	$58	133%
17	Collection Agent	Collection Clerk	MEARIE	Provincial (Ont)	**$75**	14	14	$67	$73	$77	$72	103%	**$75**	--	--	--	--	--	--	--
18	Director, Distribution Operations	(5) Engineering Operations Management - Manager (M3) and Physical Asset Management - Manager (M3)	MBD	National ex Mining	**$157**	28	61	$134	$152	$174	$155	103%	**$189**	23	50.5	$155	$178	$209	$182	106%
18	Director, Distribution Operations	Director Operations	MEARIE	Provincial (Ont)	**$157**	11	15	$143	$154	$184	$164	102%	**$189**	11	15	$146	$183	$220	$187	103%
19	IT Systems Support	Enterprise Data Architecture - Experienced Professional (P2)	MBD	National ex Mining	**$94**	4	8	--	$100	--	$97	95%	**--**	4	8	--	$100	--	$98	--
19	IT Systems Support	(6) Computer Programmer IT/Analyst / System Analyst / Technical Support Analyst	MEARIE	Provincial (Ont)	**$94**	11	11	--	$102	--	$104	93%	**--**	--	--	--	--	--	--	--
20	Vehicle and Utility Equipment Technician	Heavy Equipment Mechanic - Experienced Para-Professional (S2)	MBD	National ex Mining	**$100**	29	436	$75	$89	$103	$91	112%	**$97**	26	412	$75	$89	$101	$90	109%
20	Vehicle and Utility Equipment Technician	Trans. / Work Equip Mechanic	MEARIE	Provincial (Ont)	**$100**	15	15	$92	$96	$103	$97	103%	**$97**	--	--	--	--	--	--	--

Notes:

5. Blend of Engineering Operations Management - Manager (M3) and Physical Asset Management - Manager (M3)

6. Blend of Computer Programmer IT/Analyst / System Analyst / Technical Support Analyst

Employer Paid Benefits

Benefits Costing

- Hydro Ottawa provided Mercer with the employer-paid portion of insurance and wellness benefits, as well as pension, paid to all positions within the organization. As seen below, the positions have been grouped by their level and as a result, benefit costs and base salaries have been averaged accordingly.

Benefit	Employee Group			
	Upper Management - Levels 5 and 6	Middle Management - Levels 3 and 4	Individual Contributors - Union Levels 5, 6, and 7	Individual Contributors - Union levels 2, 3, and 4
Average Insurance (Health, Dental, Vision, etc.)	$9,101	$8,504	$8,527	$8,177
Average Wellness Spending	$123	$108	$73	$49
Average Contribution to Pension Plan	$17,395	$11,280	$11,464	$8,067
Average Total Cost of Benefits	**$26,619**	**$19,891**	**$20,064**	**$16,292**
As a Percentage (%) of Median Base Salary	**19%**	**22%**	**23%**	**24%**

Normative Comparative Reference Point (as a % of base salary)

Ontario Public Sector:
• Non-executive employees ~ 20-25%

Observations:

Hydro Ottawa benefits offerings are generally aligned with what we typically see in the market.

Appendix

4

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
Distribution Engineer	ENS.03.015.P30	Electrical Engineering - Senior Professional (P3)	Electrical Engineering researches, develops, designs, and tests electrical components, equipment, systems, and networks. Designs electrical equipment, facilities, components, products, and systems for commercial, industrial, and domestic purposes. Level: A Senior Professional (P3) applies advanced knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Managing projects / processes, working independently with limited supervision. • Coaching and reviewing the work of lower level professionals. • Problems faced are difficult and sometimes complex. Typical Title: Electrical Engineer
Network Administrator	ITC.08.031.P30	IT Data/Voice Network Administration - Senior Professional (P3)	IT Data/Voice Network Administration work focuses on planning the network implementation, determining physical and logical layouts, installing, configuring, and maintaining ICT data and voice networks including: •Meeting end user needs by ensuring the uptime, performance, resource availability, and security of the networks managed within established budgets and operational guidelines •Determining and diagramming the physical layout which illustrates the physical location of and the connections between devices participating on the network •Determining and diagramming the logical layout which documents the communication protocols (e.g., IP, TCP, POP3, etc.) and type of service/application (email, file transfer, web browsing, etc.) for each segment of the network •Automating routine tasks using scripting and writing basic computer programs to address more complex systems software configuration and enhancement Level: A Senior Professional (P3) applies advanced knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Managing projects / processes, working independently with limited supervision. • Coaching and reviewing the work of lower level professionals. • Problems faced are difficult and sometimes complex. Typical Title: IT Network Administrator, Network Administrator

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
Management Accountant	FIN.06.001.P30	Accounting - Senior Professional (P3)	Accounting includes work across multiple areas of Accounting including: •Ensuring compliance with financial transaction recording standards (e.g., general ledger, cash payments/collections, tax transactions, etc.) •Control/reconciliation of accounts and records (balance sheet, P&L, bank accounts, etc.) •Accounting reports/schedules for internal audiences (management reporting) and/or for external audiences (compliance reporting) including consolidation of financial statements, cash flow reporting, budget reporting, etc.) In some organizations, Accounting work may also include: •Cost accounting/budgeting (allocation of direct/indirect costs, variance analysis, budget preparation, etc.) •Accounts Payable/Receivable and/or Credit & Collections Level: A Senior Professional (P3) applies advanced knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Managing projects / processes, working independently with limited supervision. • Coaching and reviewing the work of lower level professionals. • Problems faced are difficult and sometimes complex. Specialization Match Note: Para-Professional incumbents are responsible for accounting transaction/data entry, data verification, and records maintenance. The following types of incumbents should be matched to the Accounting Specialization: •Incumbents with a primary focus on general transaction recording and control/reconciliation of accounts who work in organizations with separate specialists performing some or all of the budgeting, cost accounting, internal management and/or external financial reporting work. •Incumbents in positions that focus solely on the accounting aspects of tax, treasury, etc. (i.e., tax or treasury transaction recording and records maintenance). This type of highly specialized accounting work is typically found in a shared services or outsourcing environment. Typical Title: Accountant, General Accountant
System Designer	ENS.10.038.S40	Electrical Engineering Technologist/Technician - Specialist Para-Professional (S4)	Responsible for supporting the development, design, and testing of electrical components, equipment, systems, and network that includes facilities, components, products, and systems for commercial, industrial, and domestic purposes. Level: A Specialist Para-Professional (S4) requires advanced knowledge of operational procedures and tools obtained through extensive work experience and may require vocational or technical education. Responsibilities typically include: • Working under limited supervision for non-routine situations and may be responsible for leading daily operations. • Training, delegating and reviewing the work of lower level employees. • Problems are typically difficult and non-routine but not complex. Specialization Match Note: Technologists apply engineering principles in the implementation of products, systems, and processes. This differs from Engineers who use theoretical aspects of engineering principles to research and conceptually design products, systems, processes, etc. Some countries may require Technologists to have a formal certification or registration and/or a formal Technologist Degree to practice as a Technologist. Professional Technicians have a Technical Degree and some incumbents have a combination of both education/experience. Para-Professional Technicians are responsible for maintenance, repair, and troubleshooting, and may not have any certifications/education but experience. Typical Title: Electrical Engineering Technician

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
Communications Officer	CCA.02.001.P20	General Communications & Corporate Affairs - Experienced Professional (P2)	General Communications & Corporate Affairs includes work managed or performed across multiple Communications & Corporate Affairs sub-families. Specializations in this sub-family typically perform work related to both internal and external communications, including developing the content for and producing written and visual communications. The internal portion of the work is focused on company-wide communications to employees related to organization values/strategy/performance and employee programs, policies, and tools. The external communications portion of the work includes aspects of one or more of the following: •Public Relations •Government Relations •Community Relations/Corporate Responsibility •Investor Relations In some organizations, incumbents may also develop materials for marketing/advertising communications. Level: An Experienced Professional (P2) applies practical knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Works independently with general supervision. • Problems faced are difficult but typically not complex. • May influence others within the job area through explanation of facts, policies and practices. Typical Title: Communications & Corporate Affairs Analyst, Communications & Corporate Affairs Officer, Corporate Communications Analyst, Corporate Communications Officer
Supervisor, Billing	FIN.09.005.M10	Billing & Invoicing - Team Leader (Para-Professionals) (M1)	Billing & Invoicing work is focused on designing and ensuring compliance with billing and invoicing processes including: •Information verification (e.g., ensure accuracy of billing information, negotiated terms and compliance with current legislation) •Monitoring customer accounts (e.g., ensure payments made on time, report on overdue accounts, etc.) •Resolving billing discrepancies (e.g., investigate and resolve billing & invoicing errors, recommend process improvements to avoid future errors, etc.) •May include collections activities Level: A Team Leader (M1) supervises para-professional employees. Responsibilities typically include: • Setting day-to-day operational objectives for team. • Problems faced may be difficult but typically are not complex. • Ensures policies, practices and procedures are understood and followed by direct reports, customers and stakeholders. Specialization Match Note: Para-Professional incumbents verify information (e.g., ensure accuracy of billing information, negotiated terms, etc.) and complete invoice data entry. Typical Title: Billing & Invoicing Manager, Billing & Invoicing Supervisor
Senior Procurement Agent	SCN.03.001.P20	Procurement - Experienced Professional (P2)	Accountable for obtaining goods/services required by the organization including: •Indirect Operations (e.g., Office Supplies, Computers, Travel, Maintenance, Machine Parts, etc.) •Direct Operations (e.g., Raw Materials and Services for Manufacturing, Production or Construction; Products for Retail, etc.) Procurement processes include: •Product/Service Sourcing •Supplier Selection •Pricing/Terms Negotiation •Order Processing •Contract Administration •Supplier Performance Management •May include Strategic Sourcing Level: An Experienced Professional (P2) applies practical knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Works independently with general supervision. • Problems faced are difficult but typically not complex. • May influence others within the job area through explanation of facts, policies and practices. Specialization Match Note: Para-Professional incumbents administer the transactions associated with obtaining goods and services and do not negotiate pricing or terms. Typical Title: Procurement Officer, Procurement Buyer, Procurement & Purchasing Officer

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
Warehouse Attendant	SCN.05.029.S30	Warehouse Shipping & Receiving - Senior Para-Professional (S3)	Warehouse Shipping & Receiving includes: •Receiving/inspecting goods and verifying items against the shipment record •Gathering, verifying, and packing items for shipment according to specifications and the applicable transportation method •Recording received and shipped items Level: A Senior Para-Professional (S3) requires broad knowledge of operational procedures and tools obtained through extensive work experience and may require vocational or technical education. Responsibilities typically include: • Works under limited supervision for routine situations. • Provides assistance and training to lower level employees. • Problems typically are not routine and require analysis to understand. Typical Title: Warehouse Worker, Warehouseperson, Warehouse Technician, Warehouse Operator, Shipping/Receiving Clerk, Billing & Shipping Clerk, Shipping Coordinator
IT Service Desk Technician	ITC.10.001.P10	General IT User Support - Entry Professional (P1)	Responsible for providing day-to-day technical support to employees for a range of hardware and software related systems. Responds to and diagnoses problems through discussion with users, which includes trouble shooting, fault rectification and problem escalation. Provides effective and timely resolution of users' problems, queries or complaints. Assists in hardware and software evaluation and recommends upgrades or improvements to IT infrastructure. Level: An Entry Professional (P1) applies broad theoretical job knowledge typically obtained through advanced education. Responsibilities typically include: • Work is closely supervised. • Problems faced are not typically difficult or complex. • Explains facts, policies and practices related to job area. Typical Title: IT Support Analyst, IT Helpdesk Analyst, IT Service Desk Analyst
GIS/CAD Technician	ENS.08.001.P10	Geographic Information Systems (GIS) - Entry Professional (P1)	Designs, analyzes and develops geo-spatial solutions and product specifications for infrastructure, hydrographic and physiographic features for global geo-spatial images and vector products. Develops and maintains geospatial databases. Uses GIS to perform spatial analysis, database development, extraction and manipulation. Converts data received from internal and external sources to make them usable in the GIS. Maintains metadata and documentation, performs topology checks and other data quality checks to identify and correct errors or omissions in data. Level: An Entry Professional (P1) applies broad theoretical job knowledge typically obtained through advanced education. Responsibilities typically include: • Work is closely supervised. • Problems faced are not typically difficult or complex. • Explains facts, policies and practices related to job area. Typical Title: Geographic Information Systems Analyst, GIS Analyst, Geographic Information Systems Data Administrator, GIS Engineer

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
Customer Contact Agent	CSV.02.001.S20	General Customer Service - Experienced Para-Professional (S2)	General Customer Service includes post-sale technical and/or non-technical customer service and support across multiple sub-families for business and/or end-consumer customers including: Remote Customer Service: Providing customer service and support via phone, online chat, or text including: •Call center-based customer support in response to a high volume of low complexity inquiries •Customer issues analysis and resolution (typically performed in an office environment) in response to a lower volume of higher complexity inquiries Distribution Center Customer Service: Performed in a distribution center, product returns/repair center, or field walk-in customer service facility including: •Acting as liaison between customers, production and distribution departments related to specific customer orders •Providing technical and non-technical customer support in a walk-in service center Incumbents matching to this specialization are not compensated based on achievement of sales targets. Level: An Experienced Para-Professional (S2) requires basic knowledge of job procedures and tools obtained through work experience and may require vocational or technical education. Responsibilities typically include: •Works under moderate supervision. •Problems are typically of a routine nature, but may at times require interpretation or deviation from standard procedures. •Communicates information that requires some explanation or interpretation. Typical Title: Customer Service Assistant
Billing Service Associate	FIN.09.005.S20	Billing & Invoicing - Experienced Para-Professional (S2)	Billing & Invoicing work is focused on designing and ensuring compliance with billing and invoicing processes including: •Information verification (e.g., ensure accuracy of billing information, negotiated terms and compliance with current legislation) •Monitoring customer accounts (e.g., ensure payments made on time, report on overdue accounts, etc.) •Resolving billing discrepancies (e.g., investigate and resolve billing & invoicing errors, recommend process improvements to avoid future errors, etc.) •May include collections activities Level: An Experienced Para-Professional (S2) requires basic knowledge of job procedures and tools obtained through work experience and may require vocational or technical education. Responsibilities typically include: •Works under moderate supervision. •Problems are typically of a routine nature, but may at times require interpretation or deviation from standard procedures. •Communicates information that requires some explanation or interpretation. Specialization Match Note: Para-Professional incumbents verify information (e.g., ensure accuracy of billing information, negotiated terms, etc.) and complete invoice data entry. Typical Title: Billing & Invoicing Clerk, Billing & Invoicing Assistant
Collection Agent	FIN.10.001.S20	Credit & Collections - Experienced Para-Professional (S2)	Credit & Collections work is focused on administering, designing, and ensuring compliance with credit and collections processes including: Credit •Researching credit history (e.g., collect personal/business data for analysis, run credit reports, etc.) •Applying acceptable credit lines and payment terms to new customer and/or supplier accounts Collections •Collection and maintenance of customer accounts (e.g., track account status, report on outstanding balances, prioritize collection activity) •Follow up overdue accounts (e.g., initiate demand letters, outbound phone calls to delinquent accounts, external debt collection, etc.) Level: An Experienced Para-Professional (S2) requires basic knowledge of job procedures and tools obtained through work experience and may require vocational or technical education. Responsibilities typically include: •Works under moderate supervision. •Problems are typically of a routine nature, but may at times require interpretation or deviation from standard procedures. •Communicates information that requires some explanation or interpretation. Typical Title: Credit & Collections Clerk, Credit & Collections Assistant

MBD Benchmark Matches

HOL Position Title	MBD Match Code	Match Title	Match Description
IT Systems Support	ITC.03.002.P20	Enterprise Data Architecture - Experienced Professional (P2)	Enterprise Data Architecture work involves developing standards, tools, and governance for capturing, modeling, storing, and delivering data for the enterprise including: •Identifying data-related business requirements and service standards (e.g., transaction processing speed, data mining and reporting capabilities, data security, scalability, etc.) •Developing a high level enterprise data model and conceptual views of related data sub-architectures (e.g., database, data integration, data warehouse/business intelligence, reporting, metadata, and content management architectures) •Optimizing overall data/information flow by reducing redundancy and enabling accessibility within security boundaries Level: An Experienced Professional (P2) applies practical knowledge of job area typically obtained through advanced education and work experience. Responsibilities typically include: • Works independently with general supervision. • Problems faced are difficult but typically not complex. • May influence others within the job area through explanation of facts, policies and practices. Typical Title: Enterprise Data Architect
Vehicle and Utility Equipment Technician	PSK.06.040.S20	Heavy Equipment Mechanic - Experienced Para-Professional (S2)	Undertakes preventative maintenance inspections and repairs of heavy mobile equipment. Conducts safety inspections of maintenance tools and equipment. Diagnoses malfunctions using computerized and other testing equipment to determine extent of repair required. Adjusts equipment and repairs defective parts, components or systems, using hand and power tools. Completes service, maintenance, and repair documentation as required. Ensures all work is carried out according to environmental regulations and licenses. Level: An Experienced Para-Professional (S2) requires basic knowledge of job procedures and tools obtained through work experience and may require vocational or technical education. Responsibilities typically include: •Works under moderate supervision. •Problems are typically of a routine nature, but may at times require interpretation or deviation from standard procedures. •Communicates information that requires some explanation or interpretation. Typical Title: Heavy Duty Mechanic

Mercer

Important Notices

Mercer does not provide tax or legal advice. You should contact your tax advisor, accountant and/or attorney before making any decisions with tax or legal implications. This does not constitute an offer to purchase or sell any securities. The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed. For Mercer's conflict of interest disclosures, contact your Mercer representative or see www.mercer.com/conflictsofinterest.

This does not contain investment advice relating to your particular circumstances. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances.

Information contained herein may have been obtained from a range of third party sources. While the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the third party information presented and takes no responsibility or liability (including for indirect, consequential, or incidental damages) for any error, omission or inaccuracy in the data supplied by any third party.

Investment management services for Canadian investors are provided by Mercer Global Investments Canada Limited. Investment consulting services for Canadian investors are provided by Mercer (Canada) Limited.

INTERROGATORY RESPONSES TO SCHOOL ENERGY COALITION

1-SEC-23

EVIDENCE REFERENCE:

[Ex.1-3-3, Attachment F] With respect to the Mercer, Market Compensation Review:

QUESTION(S):

a. [p.4] Please provide a list of all companies included in each of the Mercer Benchmarking Database and the MEARIE Survey Data.
b. [p.5] Is the Hydro Ottawa data actual compensation paid at each position?
c. [p.8-11] For each listed HOL Job/Position, please provide the number of FTEs in that role in 2024, and specify if the Job/Position is management, non-management union, non-management/non-union.
d. [p.8-11] Please provide a list of all elements of compensation that are included in the benchmarking study that differ from that which makes up the compensation costs included in Appendix 2-K.

RESPONSE(S):

a) Please reference Attachment 1-SEC-23(A) - Mercer Participant List and Attachment 1-SEC-23(B) - Mearie Participant List.

b) Yes, the average salary for each position has been used to compare to the market median job rate.

c) Please see Table A below.

Table A - FTEs and Category of Jobs in Compensation Review

Role	2024 FTE	Category
Billing Service Associate	10.73	Union
Collection Agent	5.29	Union
Communications Officer	1.00	Union
Customer Contact Agent	2.15	Union
Director, Distribution Operations	2.00	Management
Distribution Engineer	2.82	Non-Union
GIS/CAD Technician	10.47	Union
IT Service Desk Technician	4.00	Union
IT Systems Support	3.00	Union
Management Accountant	3.54	Non-Union
Manager, Distribution Operations	3.98	Management
Network Administrator	5.00	Union
Power Line Technician	86.98	Union
Senior Procurement Agent	2.24	Union
Supervisor, Billing	1.00	Management
Supervisor, Distribution Operations	11.00	Management
System Designer	18.70	Union
System Operator	19.17	Union
Vehicle and Utility Equipment Technician	4.77	Union
Warehouse Attendant	6.04	Union
Total	**203.87**	

d) The only significant element included in Appendix-2K that was not included in the benchmarking study is overtime. Some minor allowances and premiums (e.g. On Call Allowance, Computer Acquisition Program, shift differentials etc.) were also included in the 2K but not the benchmarking study.

2024 CA MBD Mercer Benchmark Database Participant List (excluding Mining & Retail)		
3M Canada Company	FMC Canada	OOCL (Canada) Inc.
9 Story Media Group, Inc.	Fairstone Financial, Inc.	ORLEN Upstream Canada, Ltd.
ABB, Inc.	Family Capital	ORTHOsoft, ULC (Zimmer CAS)
ABC Benefits Corporation	Farmers Edge, Inc.	OTT HydroMet
ABC Canada Technology Group	Federated Co-operatives - CEC	Obsidian Energy, Ltd.
ADAMA Canada, Ltd.	Federated Co-operatives, Ltd. - Co-op Refinery Complex	Oceaneering Canada, Ltd.
ADGA Group Consultants, Inc.	Fednav Limited	Okta Software Canada, Inc.
AECOM Canada	Fengate Capital Management, Ltd.	Olam Americas, LLC
AEM Corporation	Ferring Pharmaceuticals Inc.	Olympus Canada, Inc.
AG Growth International, Inc.	Festo Canada	Ontario Infrastructure and Lands Corporation
AGF Management Limited	Fidelity Investments Canada, ULC	Ontario Medical Association
AMBICO Limited	Finning Canada, Inc.	Ontario One Call
ANDRITZ Hydro Canada	First Canadian Title Company Limited	Ontario Public Service
ARAUCO	First Nations Health Authority	Ontario Teachers' Pension Plan
ARC Resources, Ltd.	First West Credit Union	Opawica Explorations, Inc.
ASCOM North America	Fisher & Paykel Healthcare Limited	OpenText
ASSA ABLOY - HID Canada	Fit4Less	Orbia Advance Corporation S.A.B. De C.V. - Canada
ASSA ABLOY of Canada, Ltd.	Fleet Complete	Oregon Tool
AT&T (Canada), Inc.	Flint Hills Resources, LTD.	Organon Canada
ATB Financial	Flipp Corporation	Orica Canada, Inc.
ATCO, Ltd.	Flowserve Canada Corp.	Oshkosh Corporation (Canada)
AbbVie, Inc. (Canada)	Fluor Canada, Ltd.	Osler, Hoskin & Harcourt, LLP
Abbott Nutrition Canada	Foresters Financial	Ovintiv, Inc.
Accenture, Inc. Canada	Fort Edmonton Management Company	Owens Corning Canada Holdings, ULC
Access Information Management of Canada, ULC	Fortinet Technologies (Canada), ULC	PCI Pharma Services
Accor Canada, Inc.	Fortis, Inc. - FortisAlberta, Inc.	PENN Entertainment, Inc.
Acrisure Re	Fortis, Inc. - FortisBC, Inc.	PETRONAS Canada
Acushnet Canada, Inc.	Forty Creek Distillery, Ltd.	POWER Engineers, Inc.
Advantage Oil & Gas, Ltd.	Foundever Canada Corporation	PPG Canada, Inc.
Aecon Group, Inc.	Fragomen (Canada) Co	Pacific Canbriam Energy Limited
Aerotek ULC (Allegis Group)	Franklin Templeton Investments Corporation	Pacific Smoke International
Affirm Canada Holdings Ltd	Freeman Canada	Palo Alto Networks, Inc.
Agropur Cooperative	Fresenius Medical Care Canada	Paramount Resources, Ltd.
Air Canada	Fresh Canada	Parex Resources, Inc.
Air Liquide Canada, Inc.	FundSERV, Inc.	Pariveda Solutions, Inc.
Air Products & Chemicals	GE Canada Healthcare	Parkland Corporation
Airbnb Canada Inc.	GE Vernova	Parsons Corporation - Parsons Canada, Ltd.
Airbus Canada Limited Partnership	GEA Canada	Pathways Alliance
Akamai Technologies	GEA Farm Technologies Canada, Inc.	PayPal Canada Co.
Akzo Nobel Coatings, Ltd.	GEA Refrigeration Canada, Inc.	Payments Canada
Akzo Nobel Wood Coatings, Ltd.	GEODIS Canada	Pearson Canada, Inc.
Alberta Boilers Safety Association	GF Piping Systems Canada, Ltd.	Pelmorex Media, Inc.
Alberta School Employee Benefit Plan	GIESECKE & DEVRIENT ePayments Canada	Pembina Pipeline Corporation
Alcon Canada Inc.	GN Store Nord Canada	Penske Truck Leasing Canada, Inc.
Alfa Laval	GXO Logistics, Inc.	PepsiCo Beverages Canada
Algonquin Power & Utilities Corp.	Galderma Canada, Inc.	PepsiCo Canada, ULC
Alithya	Galderma Prod Canada, Inc.	Perpetual Energy, Inc.
All Nippon Airways Co., Ltd.	Ganotec, Inc.	Petcurean Pet Nutrition USA, Inc.
All Weather Windows, Ltd.	Gates Canada, Inc.	Peter Kiewit Sons, ULC
Allnex Canada, Inc.	Gear Energy	Pethealth A Fairfax Company
Allstate Insurance Company of Canada	Gen Digital Inc.	PetroChina Canada, Ltd.
Alludo	Generac Power Systems	Peyto Exploration & Development Corp.
Alstom Transport Canada, Inc.	General Dynamics Land Systems - Canada Corporation	Pfizer Canada, Inc.

AltaGas, Ltd.	General Dynamics Mission Systems - Canada	Pharmasave Drugs (National), Ltd.
AltaLink Management, Ltd.	General Mills Canada Corporation	Pharmasave East
Altus Group	General Motors Financial of Canada, Ltd.	Pharmasave West
Amcor Packaging Canada, Inc.	Gerdau Ameristeel Corporation	Philips Electronics, Ltd. - Healthcare
Amdocs Canadian Managed Services Inc	Ghd Holdings (Canada), Inc.	Philips Electronics, Ltd. - Personal Health
Americold Logistics	Gibson Energy, Inc.	Pine Cliff Energy, Ltd.
Amgen Canada, Inc.	Giesecke+Devrient Currency Technology America, Inc.	Plains Midstream Canada, ULC
Amica Senior Lifestyles	Gilead Sciences Canada	Plateforme Workleap, Inc.
Amplifon Canada	Gilead Sciences Canada - Gilead Alberta	PointClickCare
Amway Canada Corporation	Ginsberg Gluzman Fage & Levitz, LLP	Porter Airlines
Anachemia Canada Co.	Givaudan Canada	Post Consumer Brands Canada, Inc.
Analog Devices Canada, Ltd.	Glanbia Performance Nutrition Canada, Inc.	PrairieSky Royalty
Anaplan Software Canada, Inc.	GlaxoSmithKline Canada, Inc.	Precision Castparts Corp. Canada
Andersen Corporation - Andersen Windows, Inc.	Globant Canada	Precision Drilling Corporation
Ansell Canada, Inc.	Golden Boy Foods, Ltd.	Prevost Car, Inc.
Ansys Canada, Ltd.	GoodLife Fitness Centres	Primary Engineering & Construction
Anuvu Operations LLC	Government of Alberta	ProServeIT Corporation
Apex Tool Canada, Ltd.	Government of Alberta - Agriculture Financial Services Corporation	Procore Technologies Canada, Inc.
Apex Utilities	Government of Alberta - Alberta Electric System Operator	Procter & Gamble, Inc. - Canada
Apotex, Inc.	Government of Alberta - Alberta Energy Regulator	Prospera Credit Union
Aptos, Inc.	Government of Alberta - Alberta Enterprise Corporation	Publicis Sapient (Canada), Inc.
Aquatera Utilities, Inc.	Government of Alberta - Alberta Gaming, Liquor and Cannabis Commission	Puratos Canada, Inc.
Arch Insurance Canada, Ltd.	Government of Alberta - Alberta Health Services	Pure Metal Canada
Arch Reinsurance Company - Canadian Branch	Government of Alberta - Alberta Indigenous Opportunities Corporation	PwC Management Services, LP
Archer-Daniels-Midland Company (ADM) (Canada)	Government of Alberta - Alberta Innovates	QuadReal Property Group, LP
Arctic Wolf Networks Canada, Inc.	Government of Alberta - Alberta Innovates - C-FER Technologies	Quaker Houghton Canada, Inc.
Arcutis Biotherapeutics, Inc	Government of Alberta - Alberta Innovates - InnoTech Alberta	Qualico Developments
Ariston Canada	Government of Alberta - Alberta Motor Vehicle Industry Council	Queen's University
Arjo Canada, Inc.	Government of Alberta - Alberta Pensions Services Corporation	Queensland Sugar Limited
Arla Foods, Inc.	Government of Alberta - Alberta Public Service	Quorum Business Solutions (Canada), Inc.
Arrow Electronics, Inc. (Canada)	Government of Alberta - Alberta Securities Commission	R.V. Anderson Associates Limited
Arterra Wines Canada, Inc.	Government of Alberta - Alberta Teachers' Retirement Fund Board	RGA International Corporation
Arup Canada, Inc.	Government of Alberta - Alberta Utilities Commission	RHI Canada, Inc.
Aspire Bakeries B.C., ULC	Government of Alberta - Athabasca University	ROCKWOOL, Inc. - Canada
Associated Brands, Inc.	Government of Alberta - Bow Valley College	RSM Canada
Associated Materials Canada Limited	Government of Alberta - Covenant Health	RTX Corporation
Association of Professional Engineers and Geoscientists of BC	Government of Alberta - Credit Union Deposit Guarantee Corporation	RWDI AIR, Inc.
Astellas Pharma Canada, Inc.	Government of Alberta - Health Quality Council of Alberta	RXO, Inc.
Astenjohnson, inc.	Government of Alberta - Invest Alberta Corporation	Radial, Inc.
AstraZeneca Canada, Inc.	Government of Alberta - Keyano College	Radiology Consultants Associated
Asurion Insurance Services	Government of Alberta - LAPP Corporation	Read Jones Christoffersen, Ltd.
Athabasca Oil Corporation	Government of Alberta - Lethbridge College	Real Estate Council Of Ontario
AutoCruitment, LLC	Government of Alberta - MacEwan University	Reckitt Benckiser Canada
AutoStore Holdings, Ltd.	Government of Alberta - Market Surveillance Administrator	Red Bull Canada, Ltd.
Autoliv, Inc. - Autoliv Canada, Inc.	Government of Alberta - Medicine Hat College	Regal Beloit Canada, ULC
Avalara Inc.	Government of Alberta - Mount Royal University	Regional Municipality of Niagara
Avient - Canada	Government of Alberta - Natural Resources Conservation Board	Reimer World Corporation
Aviso Wealth, Inc.	Government of Alberta - NorQuest College	Resideo Technologies, Inc.
Axalta Coating Systems Canada	Government of Alberta - Northern Alberta Institute of Technology	Rheem Canada, Ltd.
BA Robinson	Government of Alberta - Northern Lakes College	Rich Products of Canada
BADGER INFRASTRUCTURE SOLUTIONS	Government of Alberta - Northwestern Polytechnic	Richardson International Limited
BASF Canada, Inc.	Government of Alberta - Olds College	Richter, LLP
BBA, Inc.	Government of Alberta - PSPP Corporation	Ricoh Canada, Inc.
BC Hydro & Power Authority	Government of Alberta - Portage College	Rife Resources, Ltd.
BDO Canada, LLP	Government of Alberta - Red Deer Polytechnic	Rimex Supply, Ltd.

BGC Engineering, Inc.	Government of Alberta - SFPP Corporation	RioCan Real Estate Investment Trust
BGIS Global Integrated Solutions Canada, LLP	Government of Alberta - Southern Alberta Institute of Technology	Riverside Natural Foods Ltd. (Home of MadeGood)
BISSELL Canada Corporation	Government of Alberta - Special Areas Board	Rivian Automotive Canada, Inc.
BMC Software Canada, Inc.	Government of Alberta - Travel Alberta	Robert Half Canada, Inc.
BMW Group Financial Services Canada	Government of Alberta - University of Alberta	Roche Diabetes Care Canada
BNP Paribas	Government of Alberta - University of Calgary	Roche Diagnostics Canada
BP Canada Energy Group, ULC	Government of Alberta - University of Lethbridge	Rock Central, LLC
BSH Canada Home Appliances Non-Exec	Government of Alberta - Workers' Compensation Board - Alberta	Rockpoint Gas Storage
BWXT Canada, Ltd.	Government of Nova Scotia	Rockwell Automation Canada Control Systems
BWXT Medical, Ltd.	Graham Management Service, LP	Rogers Communications, Inc.
BWXT Nuclear Energy Canada, Inc.	GrainCorp Canada, Inc.	Rolls-Royce Canada, Ltd.
BWXT Precision Mfg, Inc.	Grainger Canada Holdings	Roquette Canada Ltd.
Baker Hughes	Gran Tierra Energy, Inc.	Ross Video Limited
Balcan Innovations, Inc.	Grant Thornton, LLP	Rothmans, Benson & Hedges, Inc.
Ball Corporation - Ball Aerosol Packaging	Graphic Packaging Canada	Rowan Williams Davies & Irwin, Inc.
Ball Corporation - Beverage Packaging North & Central America	Great Canadian Gaming Corporation	Royal Bank of Canada
Bank of Montreal	Great Canadian Railtour Company, Ltd.	Royal Canin Canada, Inc.
Barry Callebaut Canada, Inc.	Great Western Malting Co.	S&C Electric Canada, Ltd.
Baytex Energy Corp.	Greater Toronto Airports Authority	SAS Institute (Canada), Inc.
Bechtel Corporation (Canada)	Green Impact Partners	SBA Network Services Canada
Becton Dickinson Canada, Inc.	Grundfos Canada, Inc.	SC Johnson & Son, Ltd.
Beiersdorf Canada, Inc.	H-E Parts International, LLC	SCM Insurance Services
Belden Canada, Inc.	HAPAG-LLOYD (CANADA) INC	SCS Consulting Group, Ltd.
Belimo Aircontrols (CAN), Inc.	HDR, Inc. (Canada)	SIEMENS MOBILITY LIMITED
Bell Canada	HH Angus & Associates, Ltd.	SKF Canada Limited
Bell Textron Canada Limited	HSS Enterprises	SNDL, Inc.
BenchSci	HWN Energy, Ltd.	SOTI, Inc.
Benevity, Inc.	Hach	SPS Commerce Canada, Ltd.
BentallGreenOak (Canada)	Haleon Canada	SPX Technologies, Inc. - Canada
Bentley Canada, Inc.	Halifax Regional Municipality	STELIA North America
BeyondTrust Corporation	Halliburton Group Canada	STEMCELL Technologies Canada, Inc.
BioSyent, Inc.	Hammond Power Solutions	STEP Energy Services, Ltd.
Biogen Canada, Inc.	Hanon Systems Canada, Inc.	Safe Roads Engineering
Biomérieux Canada Inc.	Hanon Systems Canada, Inc. - Fluid Pressure & Controls (FP&C)	Safran Landing Systems Canada, Inc.
Birchcliff Energy, Ltd.	Harlequin Enterprises, Ltd.	Sage-Link, Ltd.
Bird Construction Company	Hasbro Canada	Sagen MI Canada, Inc.
Black & Veatch Canada Company	HashiCorp Sales & Marketing (Canada) ULC	Saint-Gobain Canada, Inc.
Blackberry Limited	Hatch, Ltd.	Salesforce Canada Corporation
Blackline Safety Corp.	Hatfield Consultants, Ltd.	Samuel, Son & Co., Limited
Blake, Cassels & Graydon, LLP	Haventree Bank	Sandoz Canada, Inc.
BluEarth Renewables, Inc.	Haworth	Sandvik Canada, Inc.
Blue Mountain Resorts, LP	Healthcare Insurance Reciprocal of Canada	Sanjel Energy Services Inc.
BlueShore Financial Credit Union	Healthcare of Ontario Pension Plan	Sanofi Pasteur Limited
BlueTriton Brands (Canada)	Heartland Generation	Saputo, Inc.
Boehringer Ingelheim Canada, Ltd.	Heaven Hill Distilleries, Inc.	SaskEnergy, Inc.
Bombardier Recreational Products, Inc. (BRP, Inc.)	Heidelberg Materials	SaskPower
Bombardier, Inc.	Hellmann Worldwide Logistics	SaskTel
Booking.com Canada	Hempel (Canada), Inc.	Saskatchewan Blue Cross
Bosch Rexroth Canada Corp.	Henkel Canada Corp	Saskatchewan Government Insurance
Boston Scientific Canada Limited	Henry Schein Canada, Inc.	Saskatchewan Indian Gaming Authority
Boyd Group Services, Inc.	Heritage Resource Limited Partnership	Saturn Oil & Gas, Inc.
Bradken Canada Manufactured Products, Ltd.	Hershey Canada, Inc.	Savanna Drilling
Brambles	Hexion Canada Inc.	Savanna Well Servicing
Brightly Software Canada, Inc.	High Liner Foods, Inc.	Savvas Learning Company
British Columbia Automobile Association	Highspot, Inc.	Sazerac of Canada, Inc.

Brookfield Residential Properties, ULC	Hillenbrand, Inc. Canada	Scarborough Transit Connect GP
Burns & McDonnell	Hilti Canada	Schaeffler Aerospace Canada, Inc.
Business Development Bank of Canada	Hiram Walker & Sons, Ltd.	Schaeffler Canada, Inc.
CAA Club Group	Hitachi Construction Truck Manufacturing	Schenker of Canada Limited
CAE, Inc.	Hitachi Energy Canada	Schindler Elevator Corporation (Canada)
CB&I	Hitachi Rail STS Canada	Schlumberger Canada, Ltd.
CBC/Radio-Canada	Hitachi Systems Security, Inc.	Schneider Electric Canada, Inc.
CBRE Limited	Hockey Canada	Scotiabank
CDN Controls Ltd.	Hoffmann-La Roche, Limited	Scotts Canada, Ltd.
CEDA International Corporation	Hollister	Seaspan Ship Management, Ltd.
CES Energy Solutions Corp.	Hologic	Seastar Chemicals, Inc.
CEVA Freight Canada Corp.	Home Trust Company	Secure Energy Services, Inc.
CEVA Logistics Canada ULC	Honda of Canada Manufacturing	Sensia, Ltd. (CA)
CF Chemicals, Ltd.	Honeywell Limited	Serco Canada
CGC, Inc.	Hood Packaging	ServiceNow Canada, Inc.
CGI, Inc.	HubSpot Canada, Inc.	Servier Canada, Inc.
CHC Helicopters Canada	Hunting Energy Services (Canada), Ltd.	Shaw Industries Group
CIBC Mellon	Huntsman Canada	Shell Canada Limited
CIMA+	Husky Injection Molding Systems, Ltd.	Shell Canada Limited - Downstream
CKQ KONE	Hydro-Quebec	Shell Canada Limited - Projects & Technology
CMA CGM CANADA	Hypertherm	Shiseido (Canada), Inc.
CNH Industrial Canada, Ltd.	IBM Canada Limited	Shockwave Medical Canada, Inc.
CNOOC Petroleum North America, ULC	ICF Consulting Canada, Inc.	Shopify, Inc.
COSL Canada	IMAX Corporation	Shutterfly, Inc.
CRH	IPC Canada, Ltd.	Sidel Canada, Inc.
CRH Canada Group, Inc.	IQVIA RDS Canada, ULC	Siemens Canada Limited
CSA Group	Imperial Oil, Ltd.	Siemens Canada Limited - Process Instruments Business Unit
CSL Behring Canada, Inc.	Imperial Tobacco Canada Limited	Siemens Canada Limited - RuggedCom
CST Consultants, Inc.	Imperva, Inc.	Siemens Canada Limited - Siemens Healthcare Diagnostics
CSV Midstream Solutions	InPlay Oil Corp.	Siemens Electronic Design Automation, ULC
Cadillac Fairview Corporation Limited	Index Exchange, Inc.	Siemens Energy Canada Limited
Calgary Airport Authority	Infoblox Canada, Ltd.	Siemens Energy Canada Limited - Dist Gen (PRW)
Calgary Stampede Foundation	Inmar, Inc.	Siemens Energy Canada Limited - PGI Business Unit
Calian Group, Ltd.	Innomotics Inc.	Siemens Energy Transformers Canada
Calix, Inc.	Innovation Credit Union Limited	Siemens Financial, Ltd.
Cambium, Inc.	Insight Canada, Inc.	Siemens Gamesa Renewable Energy Limited
Cameco Corporation	Intact Financial Corporation	Siemens Industry Software, ULC
Campbell Company of Canada	Integra Canada	Sigma-Aldrich Canada, Ltd.
Canada Bread Company, Ltd.	Intelcom Courrier Canada, Inc.	Signify Canada, Ltd.
Canada Mortgage And Housing Corporation	Intelliware Development, Inc.	Silicon Laboratories Canada, ULC
Canada Post Corporation - Purolator	Inter Pipeline, Ltd.	Simpson Strong-Tie Canada, Ltd.
Canada Workday, ULC	Interdigital Administrative Solutions, Inc.	SinaLite
Canadian Association of Petroleum Producers (CAPP)	Interface Flooring Systems Canada, Inc.	Sinopec Daylight Energy, Ltd.
Canadian Bank Note Company, Limited	Interior Savings Credit Union	SiriusXM Canada, Inc.
Canadian Hospital Specialties Ltd.	International Air Transport Association (IATA)	Skyline Group of Companies
Canadian Imperial Bank of Commerce	International Committee of the Red Cross Canada	Slalom, LLC
Canadian Medical Association	International Financial Data Services (IFDS) Canada	Sleeman Breweries, Ltd.
Canadian Natural Resources – Oil Sands	International Paper Company Canada	Smith and Andersen Consulting Engineering
Canadian Natural Resources, Ltd.	Invesco Canada	Smucker Foods of Canada Corp.
Canadian Nuclear Laboratories	Invitae Corporation	Snap, Inc.
Canadian Pacific Kansas City Limited	Ipsen Biopharmaceuticals Canada, Inc.	Social Research and Demonstration Corporation (SRDC)
Canadian Premier Life Insurance Company (Securian Canada)	Irving Oil, Ltd.	Societe Des Alcools Du Quebec (SAQ)
Canadian Western Bank	J.D. Irving, Ltd. - Cavendish	Sollio Agriculture
Canfitpro, Inc	J.D. Irving, Ltd. - Construction and Equipment Division	Sollio Cooperative Group
Canlan Ice Sports Corp.	J.D. Irving, Ltd. - Corporate Services	Southwire Canada Company

Canlin Energy Corporation	J.D. Irving, Ltd. - Irving Consumer Products	Spartan Controls, Ltd.
Canopy Growth Corporation	J.D. Irving, Ltd. - Irving Group of Companies	Spartan Delta Corp.
Canuck Place Children's Hospice	J.D. Irving, Ltd. - Irving Personal Care	Spin Master
Capital Power Corporation	J.D. Irving, Ltd. - Irving Shipbuilding, Inc.	Spirax Sarco Canada Limited
Cardinal Health Canada	J.D. Irving, Ltd. - Midland Transport, Ltd.	Sproule Associates Limited
Cargill Limited	J.D. Irving, Ltd. - Moncton Wildcats	Square Canada Inc
Carmeuse Group - Carmeuse Lime & Stone Canada	J.D. Irving, Ltd. - Protrans	Stampede Drilling
Carrier Canada Corporation	J.D. Irving, Ltd. - Pulp & Paper Division	StandardAero Limited
Cascade Canada, Ltd.	J.D. Irving, Ltd. - Sawmills & Woodlands	Stantec, Inc.
Cascades, Inc.	J.D. Irving, Ltd. - Transportation and Logistics	Starkey Canada
Catapult Environmental Inc.	J.D. Irving, Ltd. - Universal Properties	Steel Reef Infrastructure Corp.
Caterpillar Financial Services Limited	J.D. Irving, Ltd. - Woodlands	Stericycle, Inc. - Canada
Celanese Canada, ULC	J.S. Held, ULC	Stikeman Elliott, LLP - S&E Services Limited Partnership
Cenovus Energy, Inc.	JTI-Macdonald Corp.	Strathcona Resources, Ltd.
CentralSquare Technologies, LLC	Jacobs Canada, Inc.	Straumann Canada Limited
Centuri Group, Inc. - Canada	Jaguar Land Rover Canada, ULC	Sublatus Environmental
Cerence Operating Company	Jamieson Laboratories, Ltd.	Sulzer Chemtech Canada, Inc.
Ceridian Dayforce Corp.	Janssen, Inc.	Sulzer Pumps (Canada), Inc.
Certn	John Deere Canada, ULC	Sulzer Rotating Equipment Services (Canada), Ltd.
ChampionX Canada, ULC	Johns Manville Canada, Inc.	Sun Life Financial, Inc.
Charles River Laboratories Canada	Johnson & Johnson (Canada), Inc.	Sunbelt Rentals of Canada, Inc.
Charlotte Tilbury Limited	Johnson & Johnson, Inc. - Medical Products	Suncor Energy, Inc.
Chartered Professional Accountants of Canada	Jones Lang LaSalle Canada	Suncor Energy, Inc. - Exploration & Production
ChemTreat	Journey Energy, Inc.	Suncor Energy, Inc. - Oil Sands
Chervon Canada, Inc.	Joy Global (Canada) Ltd	Suncor Energy, Inc. - Refining and Marketing
Chevron Canada Limited	Just Eat Takeaway.com - SkipTheDishes	Sunwing Vacations
Chevron Canada Resources	KAR Auction Services, Inc.	Surbana Jurong - Canada
Chisholm Fleming & Associates	KONE, Inc. (Canada)	Surerus Murphy Joint Venture
Church & Dwight Canada Corp.	KPMG, LLP	Surge Energy, Inc.
Cigna Life Insurance Company of Canada	KUBRA Data Transfer, Ltd.	Sustainable Development Technology Canada
Cimpress	Kardium	Swiss Reinsurance Company Canada
Circle Internet Financial, LLC	Kautex Corporation	Symcor, Inc.
Cirque du Soleil, Inc.	Kelt Exploration, Ltd.	Syncreon Canada, Inc.
City Of Ottawa	Kennametal, Inc.	Syneos Health Inc
City of Medicine Hat	Kenvue	Syngenta Canada, Inc.
Clean Harbors Canada, Inc.	Kepler Group	Sysco Canada, Inc.
ClearBakk Water Solutions	Kerry (Canada), Inc.	TAQA North, Ltd.
Clover Leaf Seafoods Corp.	Keurig Dr Pepper Canada	TELUS Corporation
Club Auto Roadside Services, Ltd. (Xperigo)	Keyera Corp.	TK Elevator Canada
Coast Capital Savings Federal Credit Union	Keystone Field Engineering, Inc.	TSYS Managed Services Canada, Inc. (TSYS)
Coastal Community Credit Union	Kimberly-Clark, Inc.	TTEC Canada Solutions, Inc.
Coca-Cola Canada Bottling Limited	Kingston Midstream Limited	TTM Technologies Toronto, Inc.
Coca-Cola, Ltd.	Kiwentinohk Energy Corp.	Takeda Canada, Inc.
Cognizant	Klohn Crippen Berger, Ltd.	Tatham Engineering Limited
Coinstar Automated Retail Canada, Inc.	Knight Therapeutics, Inc.	TaylorMade Golf Company Canada
Colas Canada, Inc.	Koerber Supply Chain, Inc.	Technical Standards and Safety Authority
Colgate-Palmolive Canada, Inc.	Konecranes Canada, Inc.	TechnipFMC Canada, Ltd.
Colgate-Palmolive Canada, Inc. - Hill's Pet Nutrition Canada	Konica Minolta Business Solutions (Canada)	Teekay Shipping (Canada) Ltd.
Colliers Project Leaders, Inc.	Kraft Heinz Canada, ULC	Teine Energy, Ltd.
Coloplast Canada Corporation	Kruger Energy, LP	Telix Pharmaceuticals (Canada), Inc.
Comcast Corporation	Kruger Packaging, LP	Tenaris Global Services (Canada), Inc.
Compagnie WestRock du Canada Corp.	Kruger Products, LP	Teranet, Inc.
Compass Group Canada	Kruger Pulp & Paper	Tesla, Inc. (Canada)
CompuCom Canada Co.	Kruger, Inc.	Tetra Pak Canada
Computer Modelling Group, Ltd.	Kuehne + Nagel International AG - Canada	Textron Aviation, Inc.

Conagra Brands Canada, Inc.	Kyowa Kirin	Textron Canada
Conavi Medical, Inc.	L'Oreal Canada	Textron Specialized Vehicles
Concordia University	LANXESS - North America	Textron Systems Canada, Inc.
Concordia University of Edmonton	LEGO Canada, Inc.	The Boston Consulting Group of Canada, Ltd.
Conestoga Meat Packers, Ltd.	LEO Pharma, Inc.	The CSL Group, Inc.
Conexus Credit Union	LGC Group	The Canada Life Assurance Company
Conifer Energy, Inc.	Labatt Breweries of Canada	The Canadian Medical Protective Association
Connacher Oil And Gas Limited	Labtician Ophthalmics, Inc.	The Church of Jesus Christ of Latter-day Saints (Canada)
ConocoPhillips Canada	Lactalis Canada, Inc.	The City of Calgary
Continental Canada	Land Title & Survey Authority	The Clorox Company of Canada, Ltd.
Continental Casualty Company	Laval Corporate Training Centre Inc.	The Co-operators Group Limited
ConvaTec Canada, Ltd.	Law Society of Ontario	The Commonwell Mutual Insurance Group
Convertus Canada LTD	Ledcor Industries, Inc.	The Emmes Company
Cook Medical	Lennox Industries (Canada), Ltd.	The Mastercard Foundation
CoolIT Systems Inc	Lesaffre Corporation	The Minto Group
Corby Spirit and Wine, Ltd.	Libbey, Inc.	The Orphan Well Association
Corex Resources, Ltd.	Liberty Mutual Canada	The Sherwin-Williams Company (Canada) - Corporate Division
Cornerstone Building Brands Canada Inc.	Liburdi Turbine Services, Ltd.	The Sherwin-Williams Company (Canada) - Global Supply Chain (GSC)
Cornerstone OnDemand, Inc.	LifeLabs, LP	The Sherwin-Williams Company (Canada) - Performance Coatings Group
Corning Canada	LifeScan Canada	The Sherwin-Williams Company (Canada) - Performance Coatings Group, Automotive
Corporation Développement Knowlton, Inc. (KDC/ONE)	Linamar Corporation	The Sherwin-Williams Company (Canada) - Performance Coatings Group, General Industrial
Cosmetica Laboratories	Linde Canada, Inc.	The Sherwin-Williams Company (Canada) - Performance Coatings Group, Industrial Wood Finishing
Coty Canada	Lineage Logistics ORS, Ltd.	The Sherwin-Williams Company (Canada) - Performance Coatings Group, Protective & Marine
Covanta - Durham York	Linvatec Canada, ULC	The Trade Desk Canada, Inc.
Cowi North America, Ltd.	Lion Electric	The War Amputations of Canada
Cox Automotive	Littelfuse (Canada)	The Wawanesa Mutual Insurance Company
Credit Union Central Alberta, Ltd.	Livingston International, Inc.	Thermon Canada, Inc.
Crew Energy, Inc.	Livingston Transportation, Inc.	Thomson Reuters Canada Limited
CrowdStrike, Inc.	London Health Sciences Centre	Thyssenkrupp Industrial Solutions (Canada), Inc.
Crown Lift Trucks Canada	Long View Systems	Tokio Marine Canada
Cummins Canada, ULC	Lonza Canada, Inc.	Toronto Hydro Corporation
Cushman & Wakefield	Loram Maintenance of Way	Toronto International Film Festival
Cygnet Energy Ltd.	Louis Dreyfus Company Canada, ULC	Toronto Metropolitan University
Cytel Canada Health, Inc.	Lufthansa Technik	Torxen Energy, Ltd.
DFI Corporation	Lumanity	Torys LLP
DHL Corporate	Lundbeck Canada, Inc.	Tourmaline Oil Corp.
DHL Express (Canada)	Lycopodium Minerals Canada, Ltd.	Toyota Boshoku Canada, Inc.
DHL Express Canada (Corporate)	Lynx Energy, ULC	Trans Mountain Corporation
DHL Global Forwarding (Canada), Inc.	LyondellBasell Industries - Canada	Trans-Northern Pipelines, Inc.
DHL Supply Chain Canada (Corporate)	MAXIMUS Canada, Inc.	TransAlta Corp.
DNA Genotek, Inc.	MEG Energy Corp.	Transcontinental, Inc.
DRISCOLL'S	MEGlobal Canada, ULC	Travelers Insurance Company of Canada
DSI Canada Civil, Ltd.	MHI RJ Aviation, ULC	Treasury Board Of Canada Secretariat
DSM Nutritional Products Canada, Inc.	MNP, LLP	TriSummit Utilities, Inc.
DURR Aktiengesellschaft	MTE Consultants, Inc.	Trican Well Service, Ltd.
Daimler Truck Financial Services Canada Corporation	Mackenzie Financial Corporation	Tricon Residential
Daimler Trucks North America	Maersk Line Branch Canada	Trillium Health Partners
Danaher - Beckman Coulter - Diagnostics	Magna International, Inc. - Polycon Industries	Trimac Management Services LP
Danaher - Beckman Coulter - Life Sciences	Mancal Energy, Inc.	Trimble, Inc.
Danaher - Cepheid	Manitoba Hydro	Trojan
Danaher - Cytiva	Manulife Financial Corp.	TuGo
Danaher - Integrated DNA Technologies	Maple Leaf Foods, Inc.	Tundra Oil & Gas, Ltd.
Danaher - Leica Biosystems, Inc.	Maple Leaf Sports & Entertainment, Ltd.	UPM Fibres
Danaher - Leica Microsystems	Mark Anthony Group, Inc.	UPM Raflatac Canada, Inc.
Danaher - Mammotome	Mars Canada, Inc.	Uber - Canada

Danaher - Pall	Mars Food - Canada	Ultium Cam Partners
Danaher - Radiometer	Mars Petcare - Canada	Unilever Canada, Inc.
Danaher - Sciex	Mars Wrigley Confectionery US, LLC - Canada	Unisys Canada, Inc.
Danaher Corporation	Masonite International Corporation	United Parcel Service Canada, Ltd.
Danaher Corporation (Canada)	MasterCard Incorporated	United Way of Calgary and Area
Danfoss, Inc.	Masterbrand Cabinets Canada	Univar Canada, Ltd.
Danone, Inc.	Mastronardi Produce, Ltd.	University Health Network
Dart Container, Inc.	Mattamy Homes Limited	University Pension Plan
Data Communications Management Corp.	Mattel Canada, Inc.	University of Toronto
Day & Ross, Inc.	Mattr Corp	Upfield Canada, Inc.
De Havilland Aircraft of Canada	McCain Foods Limited	Upper Grand District School Board
DeLaval, Inc.	McCormick and Company	User Testing
Deckers Outdoor Corporation Canada	McKesson Canada Corporation	VIA HFR VIA TGF
Delegat Canada Limited	McMillan LLP	VIA Rail Canada, Inc.
Dell Canada, Inc.	Medavie Blue Cross	VMWare Canada, Inc.
Deloitte, LLP	Medela Canada, Inc.	VWR International, Ltd.
Det Norske Veritas (Canada), Ltd.	Medicom	Valiant Machine & Tool Inc.
Dexterra Group	Medison Canada	Valmet, Ltd.
Diageo Canada, Inc.	Medline Canada Corporation	Valmont WC Engineering Group, Ltd.
Dialpad, Inc.	Medtronic Canada, ULC	Vancouver City Savings Credit Union (Vancity Credit Union)
Diamond Gas Management Canada, Ltd.	Mercedes-Benz Financial Services Canada Corporation	Vanderlande Canada
Diligent Canada, Inc.	Meridian Credit Union Limited	Vantage Data Centres Canada, ULC
Domtar Corporation	Meridian Onecap Credit Corp	Varian Medical Systems, Inc.
DoorDash, Inc.	Merrick and Company	Veoneer Canada, Inc.
Dow Chemical Canada, ULC	Mersen Canada DN, Ltd.	Veralto Corp.
Dresser-Rand Canada, ULC	Methanex Corporation	Veren Energy
Driven Brands, Inc.	Methode Canada	Vermilion Energy, Inc.
DuPont Canada, Inc.	Metso Outotec Canada	VersaBank
Dynacare	Mettler-Toledo, Inc.	Vertex Pharmaceuticals (Canada), Inc.
Dyno Nobel Canada, Inc.	MiTek Canada, Inc.	Vesta Energy Corp.
Dyson Canada	Michael Garron Hospital	Vestas - Canadian Wind Technology, Inc.
EDF Renewables Canada, Inc.	Michelin North America, Inc. - Canada	Vestis
EFI Canada, Inc.	Microsoft Corporation	Vialto Canada
EMD, Inc.	Millennium EMS Solutions, Ltd.	Videojet
ENMAX Corporation	MillerKnoll Canada	Viega, LLC
EPCOR Utilities, Inc.	Molnlycke Health Care, Inc.	Ville de Montreal
ESAB Group Canada, Inc.	Molson Coors Canada, Inc.	Visa Canada Corporation
Eastman Chemical Canada	Mondelez Canada, Inc.	Viterra Canada Inc.
Eaton Industries (Canada) Company	Mondofix	Voyant Beauty, Inc.
Ecolab Canada	Moog, Inc. (Canada)	WESCO Distribution Canada, LP
Edgewell Personal Care Canada, ULC	Motion, LP	WK Kellogg
Edward Jones	Motioneering, Inc.	WK Kellogg Canada Corp.
Egis Canada Ltd.	Motorola Solutions Canada, Inc.	WSP Canada, Inc.
Eisai Limited	Motrex, LLC	WZR Development, ULC
Elanco Canada Limited	Mouvement des caisses Desjardins (Desjardins Group)	Waddell Engineering, Ltd.
Electrolux	Multi-Health Systems	Wartsila Canada, Inc.
Eli Lilly Canada, Inc.	Murphy Oil Company, Ltd.	Waste Management, Inc. (Canada)
Ellucian Company L.P.	NAV CANADA	Weatherford Canada, Ltd.
Ember Resources, Inc.	NCS Multistage, Inc.	Wella Canada, Inc.
Emburse, Inc.	NORTERA	Wenco International Mining Systems
Emera, Inc.	NOVA Chemicals Corporation	Werner Enterprises Canada Corporation
Emerson Electric Canada Corporate	NTE Energy Canada	West Fraser Timber Co., Ltd.
Empire Communities	NVIDIA Corp. - Canada	West Lake Energy Corp.
Enbridge, Inc.	Nanometrics, Inc.	WestJet Airlines, Ltd.
Encore - Canada	National Bank of Canada	Western Energy Services Corp.

Endo Pharma	National Express, LLC	Western Energy Services Corp. - Aero Rental Services
Enercare Home and Commercial Services, Inc.	Nestle Canada	Western Energy Services Corp. - Eagle Well Servicing
Enercare, Inc.	Nestle Canada, Inc. - Nespresso	Western Energy Services Corp. - Horizon Drilling
Enerflex, Ltd.	Nestle Canada, Inc. - Nutrition Health Science	Westinghouse Electric Canada, Inc.
Enerflex, Ltd. - Engineered Systems & After Market	Nestle Canada, Inc. - Purina PetCare	Westland Insurance Group
Energie Valero, Inc.	NetApp Canada, Ltd.	Whistler Blackcomb
Energizer Canada, Inc.	Newfold Digital Inc.	Whitecap Resources, Inc.
Energy Safety Canada	Newman Hattersley, Ltd.	Whitefox Technologies Canada Ltd.
Enerplus Corporation	Nexus Water Group (Canada)	Windsor Tooling International Inc.
Englobe Corp.	Nokian Tyres Canada	Windsor-Detroit Bridge Authority
Ensign Drilling, Inc. - Corporate	Nordic Consulting Partners	Winpak Portion Packaging, Ltd.
Enterprise Holding, Inc.	Nordock Inc.	Wittington Investments Limited
Entuitive	Norsk Hydro Canada	Wolf Infrastructure Management, Inc.
Envirem Organics Ltd.	Nortal, LLC	Woodbridge Foam Corporation
Envision Pharma Canada	North West Redwater Partnership	Woodfibre LNG Limited
Envista Holdings Corporation (Canada)	NorthRiver Midstream, Inc.	WorkSafeBC
Epicor Software Canada, Ltd.	Northbridge Financial Corporation	Workplace Safety & Insurance Board
Equinix Canada, Ltd.	Norton Rose Fulbright Canada	World Wide Technology Canada, ULC
Equinor Canada, Ltd.	Nova Bus, Inc.	Worldwide Clinical Trials Canada
Equitable Group	Novartis Pharmaceuticals Canada, Inc.	WorleyParsons Canada Services, Ltd.
Ericsson Canada, Inc.	Novelis, Inc.	Wyndham Hotels & Resorts, Inc.
Ernst & Young, LLP	Novo Nordisk Canada, Inc.	Xerox Canada, Inc.
Esko	NovoCure Canada, Inc.	Xplore, Inc.
Essity Canada, Inc.	Novozymes Biologicals, Ltd.	Yara Canada Inc.
Evonik Canada, Inc.	Novozymes Canada Limited	Yelp, Inc
Exact Sciences	NuVista Energy, Ltd.	Yorkville University
Exchanger Industries Limited	Nulli Secundus, Inc.	ZF Automotive Canada Limited
Exel Canada, Ltd.	Numeris	Zebra Technologies Corp.
Experian	Nutrien, Ltd.	Zillow Group, Inc.
Exterran Water Solutions	Nvent Thermal Canada, Ltd.	Zurich Canadian Holdings Limited
Exxonmobil Canada, Ltd.	O'Kane Consultants inc.	e-Zinc, Inc.
F5, Inc.	ODL North America, Inc.	i3 Energy Canada
FGF Brands Inc	OMERS	ivari Canada, ULC
FM Global	ONxpress Transportation Partners	

Mearie Participant List
Alectra Utilities Inc.
Bluewater Power Distribution Corporation
Burlington Hydro Inc.
E.L.K. Energy Inc.
Elexicon Energy
Entegrus Inc.
EPCOR Electricity Distribution Ontario Inc.
ERTH Power Corporation
Essex Powerlines Corporation
Festival Hydro Inc.
Fort Frances Power Corporation
GrandBridge Energy Inc.
Greater Sudbury Hydro Inc.
Grimsby Power Incorporated
Hydro Ottawa Limited
InnPower Corporation
Kitchener-Wilmot Hydro Inc.
Lakefront Utility Services Inc.
Lakeland Power Distribution Ltd.
London Hydro
Milton Hydro Distribution Inc.
Niagara Peninsula Energy Inc.
North Bay Hydro Distribution Limited
Northern Ontario Wires Inc.
Orangeville Hydro Limited
Oshawa PUC Networks Inc.
Ottawa River Power Corporation
Peterborough Utilities Group
PUC Services Inc.
Sioux Lookout Hydro
Synergy North
Utilities Kingston
Wasaga Distribution Inc.
Waterloo North Hydro

Table 1 - Hydro Ottawa Compensation Variance From P50

		Average		FTE & $ Weighted Average	
		Base (a)	**TTC** (b)	**Base** (c)	**TTC** (d)
MBD	Management	6.50%	4.00%	4.6%	5.1%
	Union and Non-Union	18.86%	17.69%	20.6%	19.6%
	Total	17.31%	15.87%	19.7%	18.6%
MEARIE	Management	-1.25%	-2.25%	2.6%	0.9%
	Union and Non-Union	10.85%	0.67%	4.7%	2.9%
	Total	8.00%	-1.00%	4.4%	1.4%
50/50 (Where both MBD/MEARIE)	Management	1.50%	0.25%	3.1%	1.5%
	Union and Non-Union	14.94%	17.96%	7.6%	19.9%
	Total	12.25%	13.79%	7.1%	14.6%
MBD if available, MEARIE If not	Management	4.25%	2.75%	3.6%	2.1%
	Union and Non-Union	17.19%	10.54%	9.9%	20.1%
	Total	14.60%	14.18%	9.2%	15.1%

Table 2 - Hydro Ottawa Compensation Variance From P50

		2026 Total Salaries and Wages (1) (e)	Allocated to OM&A (2) (f) = (e) x 75.39%	TTC Variance to P50 (g) = (f) x (d)	Total Compensation (1) (h)	Allocated to OM&A (2) (i) = (h) x 75.39%	TTC Variance to P50 (j) = (i) x (d)
MBD	Management	$18,790,759	$14,166,353	$728,918	$24,109,917	$18,176,466	$935,254
	Union and Non-Union	$62,713,881	$47,279,995	$9,278,304	$80,323,209	$60,555,667	$11,883,544
	Total			*$10,007,222*			*$12,818,798*
MEARIE	Management	$18,790,759	$14,166,353	$124,508	$24,109,917	$18,176,466	$159,753
	Union and Non-Union	$62,713,881	$47,279,995	$1,373,513	$80,323,209	$60,555,667	$1,759,180
	Total			*$1,498,021*			*$1,918,932*
50/50 (Where both MBD/MEARIE)	Management	$18,790,759	$14,166,353	$208,817	$24,109,917	$18,176,466	$267,927
	Union and Non-Union	$62,713,881	$47,279,995	$9,422,418	$80,323,209	$60,555,667	$12,068,123
	Total			*$9,631,235*			*$12,336,050*
MBD if available, MEARIE If not	Management	$18,790,759	$14,166,353	$294,127	$24,109,917	$18,176,466	$377,386
	Union and Non-Union	$62,713,881	$47,279,995	$9,524,833	$80,323,209	$60,555,667	$12,199,295
	Total			*$9,818,959*			*$12,576,681*

(1) Appendix 2-K (1-Staff-1A)

(2) 75.39% from Appendix 2-K (1-Staff-1A) , Row 30/32

TECHNICAL CONFERENCE UNDERTAKING RESPONSES TO SCHOOL ENERGY COALITION

JT2.20

EVIDENCE REFERENCE:

1-SEC-24

UNDERTAKING(S):

Provide a complete picture of initiatives implemented in whole or in part before 2021.

RESPONSE(S):

Please see Table A below which indicates which of the Productivity Initiatives presented in 1-SEC-24 were implemented before 2021.

Table A - Productivity Initiatives

Initiative	Implementation Date Relative to the Start of 2021
3.1.1 Distribution Capital Program Delivery Optimization (Regular Time & Overtime)	After
3.1.2 Fleet Pooling	After
3.1.3 Cable Locates Efficiency	After
3.1.4 Service Layout Process Improvements	After
3.1.5 Major Projects Consulting Procurement	After

Initiative	Implementation Date Relative to the Start of 2021
3.1.6 Vendor and Supplier Engagement	In part, before. This is an ongoing initiative, however, it had not been quantified previously. In addition, the impacts of COVID-19 and related supply chain challenges created a focus on Hydro Ottawa's efforts and increased the level of engagement with key suppliers.
3.2.1 Net Metering Automation	After
3.2.2 Online Billing Enhancements	In part, before. This is an ongoing initiative, however only incremental savings are included. Additional efforts to push the e-billing rate from 54.8% at the end of 2020 to 80% in 2026 will result in postage costs being reduced from $1.6M in 2021 to $1.1M in 2026. Bill production costs will also decrease from $0.4M to $0.3M, as outlined in Table A of CCC-45.
3.2.3 Remote Disconnection Technology	In part, before. This is an ongoing initiative, however additional deployment of remote disconnect meters resulted in additional savings over the 2021-2025 period.
3.2.4 Customer Relationship Management (CRM) Platform Implementation	After. Although first implemented in 2018, the productivity savings discussed stem from improved usage of the CRM system after 2021
3.2.5 Disconnection Notification Automation	Before. Although implemented in 2019, the automation reduced the need for additional staff in the 2021-2025 period. As outlined in Table C of CCC-50, FTEs of 30 in 2021 vs 28 in 2026.
3.2.6 Satellite Imaging for Vegetation Management	After
3.2.7 Blue Beam for Plant Inspectors	In part, before.The Blue Beam system implementation started in 2017 and put into service in 2019 with savings starting to be realized in 2020.
3.2.8 Move-In Move-Out Automation	After
3.2.9 Salesforce Field Service for Reliability Operations	After
3.2.10 Damage to Plant Process Automation	After
3.2.11 Customer Information System Reduced Fees	Before. Contract Negotiation occurred in 2019 with savings ending as of 2022.
3.3.1 Protection Relays Design Standard	After

1

INTERROGATORY RESPONSES TO SCHOOL ENERGY COALITION

1-SEC-24

EVIDENCE REFERENCE:

[Ex.1-3-4, p.1]

QUESTION(S):

With respect to Table 1, please provide a revised table that provides a breakdown by specific initiative, and shows each year between 2021 and 2030 separately.

RESPONSE(S):

To accommodate this request, Table 1 is broken out to 4 new tables (Tables B - E). Each table provides a breakdown for a single row in the referenced Table 1 from Schedule 1-3-4 Facilitating Continuous Improvement.

The tables below are updated based on the following revisions:

- 3.1.1 Distribution Capital Program Delivery Optimization, as noted in the response to interrogatory 1-SEC 26;
- 3.1.5 Major Projects Consulting Procurement and 3.1.6 Vendor and Supplier Engagement as minted in the response to interrogatory 1-SEC 25; and
- 3.2.2 Online Billing Enhancements as noted in the response to interrogatory 1-SEC 27.

The updates compared to the original evidence are presented in Table A below.

ORIGINAL Table A - Summary of Updated Productivity Benefits of 2021-2025 and 2026-2020 Initiatives ($'000 000s)

	Original Evidence		Revised	
	2021-2025	2026-2030	2021-2025	2026-2030
Capital Expense	$ 23.2	$ 35.1	~~$22.8~~	~~$33.9~~
Capital Depreciation	$ 1.1	$ 3.0	~~$0.8~~	~~$2.5~~
OM&A	$ 14.5	$ 27.2	~~$14.7~~	~~$27.3~~
Services to Third Parties	$ 0.9	$ 1.9	$0.9	$1.9

UPDATED Table A - Summary of Updated Productivity Benefits of 2021-2025 and 2026-2020 Initiatives ($'000 000s)

	Original Evidence		Revised	
	2021-2025	2026-2030	2021-2025	2026-2030
Capital Expense	$ 23.2	$ 35.1	$23.6	$33.4
Capital Depreciation	$ 1.1	$ 3.0	$1.5	$6.1
OM&A	$ 14.5	$ 27.2	$14.5	$26.3
Services to Third Parties	$ 0.9	$ 1.9	$0.9	$1.9

Tables B through E below provide a breakdown by specific initiative and show each year between 2021 and 2030 separately. They are organized into the following categories: Capital Expense, Capital Depreciation, OM&A and Services to Third Parties.

Tables B through D have been updated, by creating updated Tables with updated numbers highlighted and the Original Tables numbers changed to striked through red font..

ORIGINAL Table B - Capital Expense ($'000 000s)[1]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.1 Distribution Capital Program Delivery Optimization (Regular Time)	*Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity*	*$2.5*	*$2.4*	*$1.9*	*$3.0*	*$2.9*	*$12.6*	*$2.6*	*$4.3*	*$4.7*	*$3.7*	*$4.0*	*$19.3*
3.1.1 Distribution Capital Program Delivery Optimization (Overtime)	*Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity*	*$0.9*	*$0.9*	*$0.8*	*$0.7*	*$0.6*	*$3.9*	*$0.7*	*$0.8*	*$0.8*	*$0.8*	*$0.8*	*$4.0*
3.1.2 Fleet Pooling	*Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*$1.0*	*n/a*	*$2.9*	*n/a*	*n/a*	*$3.9*
3.1.4 Service Layout Process Improvements	*Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.*	*$0.0*	*$0.0*	*$0.0*	*$0.2*	*$0.3*	*$0.5*	*$0.3*	*$0.3*	*$0.3*	*$0.3*	*$0.3*	*$1.5*

[1] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.5 Major Projects Consulting Procurement	Consolidated civil and electrical engineering services under a single consultant to streamline project coordination and reduce costs.	*n/a*	*n/a*	*$0.3*	*$0.5*	~~*n/a*~~	~~*$0.8*~~	~~*n/a*~~	~~*$0.5*~~	~~*$0.5*~~	~~*$0.5*~~	~~*n/a*~~	~~*$1.5*~~
3.1.6 Vendor and Supplier Engagement	Fostered strong relationships with vendors and suppliers, resulting in favourable pricing for critical equipment relative to industry averages	~~*$0.5*~~	~~*$0.5*~~	~~*$0.5*~~	~~*$0.5*~~	~~*$0.5*~~	~~*$2.6*~~	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
3.2.4 Customer Relationship Management (CRM) Platform Implementation	Replacement of legacy service desk with a comprehensive CRM system to automate workflows and improve efficiency	*$0.1*	*$0.2*	*$0.2*	*$0.2*	*$0.2*	*$0.8*	*$0.2*	*$0.2*	*$0.2*	*$0.3*	*$0.3*	*$1.2*
3.2.7 Blue Beam for Plant Inspectors	Digitalized project documentation and plant inspections, reducing paper use and improving workflow efficiency.	$0.2	$0.2	$0.2	$0.2	$0.2	*$1.1*	$0.2	$0.3	$0.3	$0.3	$0.3	*$1.3*
3.2.10 Damage to Plant Process Automation	Implemented a Google Form-based system for faster and more efficient reporting of infrastructure damage.	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*	*$0.0*

Initiative	*Description*	*Productivity Benefits*											
		2021	*2022*	*2023*	*2024*	*2025*	*2021-2025*	*2026*	*2027*	*2028*	*2029*	*2030*	*2026-2030*
3.3.1 Protection Relays Design Standard	Optimized the placement of protection relays in substations, reducing wiring costs and eliminating the need for separate relay buildings.	$0.0	$0.0	$0.5	$0.0	$0.0	*$0.5*	$0.0	$0.4	$0.4	$0.0	$0.3	*$1.1*
Total Capital Expense:		~~$ 4.3~~	~~$ 4.1~~	~~$ 4.4~~	~~$ 5.3~~	$ 4.8	~~$22.8~~	~~$ 5.1~~	~~$ 6.8~~	~~$ 10.1~~	~~$ 5.9~~	$ 6.0	~~$33.9~~

1

UPDATED Table B - Capital Expense ($'000 000s)[2]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.1 Distribution Capital Program Delivery Optimization (Regular Time)	*Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity*	*$2.5*	*$2.4*	*$1.9*	*$3.0*	*$2.9*	*$12.6*	*$2.6*	*$4.3*	*$4.7*	*$3.7*	*$4.0*	*$19.3*
3.1.1 Distribution Capital Program Delivery Optimization (Overtime)	*Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity*	*$0.9*	*$0.9*	*$0.8*	*$0.7*	*$0.6*	*$3.9*	*$0.7*	*$0.8*	*$0.8*	*$0.8*	*$0.8*	*$4.0*
3.1.2 Fleet Pooling	*Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*$1.0*	*n/a*	*$2.9*	*n/a*	*n/a*	*$3.9*
3.1.4 Service Layout Process Improvements	*Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.*	*$0.0*	*$.0.0*	*$0.0*	*$0.2*	*$0.3*	*$0.5*	*$0.3*	*$0.3*	*$0.3*	*$0.3*	*$0.3*	*$1.5*

[2] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.5 Major Projects Consulting Procurement	Consolidated civil and electrical engineering services under a single consultant to streamline project coordination and reduce costs.	*n/a*	*n/a*	*$0.3*	*$0.5*	*$0.5*	*$1.3*	*$1.0*	*n/a*	*n/a*	*n/a*	*n/a*	*$1.0*
3.1.6 Vendor and Supplier Engagement	Fostered strong relationships with vendors and suppliers, resulting in favourable pricing for critical equipment relative to industry averages	*$0.7*	*$0.7*	*$0.7*	*$0.7*	*n/a*	*$2.9*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
3.2.4 Customer Relationship Management (CRM) Platform Implementation	Replacement of legacy service desk with a comprehensive CRM system to automate workflows and improve efficiency	$0.1	$0.2	$0.2	$0.2	$0.2	$0.8	$0.2	$0.2	$0.2	$0.3	$0.3	$1.2
3.2.7 Blue Beam for Plant Inspectors	Digitalized project documentation and plant inspections, reducing paper use and improving workflow efficiency.	$0.2	$0.2	$0.2	$0.2	$0.2	$1.1	$0.2	$0.3	$0.3	$0.3	$0.3	$1.3
3.2.10 Damage to Plant Process Automation	Implemented a Google Form-based system for faster and more efficient reporting of infrastructure damage.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.3.1 Protection Relays Design Standard	Optimized the placement of protection relays in substations, reducing wiring costs and eliminating the need for separate relay buildings.	$0.0	$0.0	$0.5	$0.0	$0.0	$0.5	$0.0	$0.4	$0.4	$0.0	$0.3	$1.1
Total Capital Expense:		$ 4.5	$ 4.3	$ 4.5	$ 5.5	$ 4.8	*$23.6*	$ 6.1	$ 6.3	$ 9.6	$ 5.4	$ 6.0	*$33.4*

1

ORIGINAL Table C - Capital Depreciation ($'000 000s)[3]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.1 Distribution Capital Program Delivery Optimization (Regular Time)	Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity	~~$0.1~~	$0.1	~~$0.1~~	~~$0.1~~	~~$0.1~~	~~$0.4~~	~~$0.1~~	~~$0.1~~	~~$0.2~~	~~$0.1~~	~~$0.1~~	~~$0.6~~
3.1.1 Distribution Capital Program Delivery Optimization (Overtime)	Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity	$0.0	$0.0	~~$0.0~~	~~$0.0~~	~~$0.0~~	~~$0.1~~	~~$0.0~~	~~$0.0~~	~~$0.0~~	~~$0.0~~	~~$0.0~~	~~$0.1~~
3.1.2 Fleet Pooling	Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees	n/a	n/a	n/a	n/a	n/a	n/a	$0.1	$0.1	~~$0.3~~	$0.3	$0.3	~~$1.2~~
3.1.4 Service Layout Process Improvements	Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.	n/a	n/a	n/a	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	~~$0.0~~	~~$0.1~~

[3] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.5 Major Projects Consulting Procurement	Consolidated civil and electrical engineering services under a single consultant to streamline project coordination and reduce costs.	$0.0	$0.0	$0.0	$0.0	$0.0	~~$0.1~~	$0.0	$0.0	~~$0.1~~	$0.1	$0.1	~~$0.3~~
3.1.6 Vendor and Supplier Engagement	Fostered strong relationships with vendors and suppliers, resulting in favourable pricing for critical equipment relative to industry averages	$0.0	$0.0	$0.0	~~$0.0~~	~~$0.0~~	~~$0.1~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~
3.2.4 Customer Relationship Management (CRM) Platform Implementation	Replacement of legacy service desk with a comprehensive CRM system to automate workflows and improve efficiency	$0.0	$0.0	$0.0	$0.0	$0.0	~~*$0.0*~~	$0.0	$0.0	$0.0	$0.0	~~$0.0~~	~~*$0.0*~~
3.2.7 Blue Beam for Plant Inspectors	Digitalized project documentation and plant inspections, reducing paper use and improving workflow efficiency.	$0.0	$0.0	$0.0	$0.0	$0.0	~~*$0.0*~~	$0.0	$0.0	$0.0	~~$0.0~~	~~$0.0~~	~~*$0.0*~~
3.2.10 Damage to Plant Process Automation	Implemented a Google Form-based system for faster and more efficient reporting of infrastructure damage.	$0.0	$0.0	$0.0	$0.0	$0.0	*$0.0*	$0.0	$0.0	$0.0	$0.0	$0.0	*$0.0*

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.3.1 Protection Relays Design Standard	Optimized the placement of protection relays in substations, reducing wiring costs and eliminating the need for separate relay buildings.	$0.0	$0.0	$0.0	$0.0	$0.0	*$0.0*	$0.0	$0.0	$0.0	$0.0	~~$0.1~~	~~*$0.2*~~
Total Capital Depreciation		$ 0.1	~~$ 0.1~~	~~$ 0.1~~	~~$ 0.2~~	~~$ 0.2~~	~~*$0.8*~~	~~$ 0.3~~	~~$ 0.4~~	~~$ 0.6~~	~~$ 0.6~~	~~$ 0.6~~	~~*$2.5*~~

1

1 **UPDATED Table C - Capital Depreciation ($'000 000s)[4]**

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.1 Distribution Capital Program Delivery Optimization (Regular Time)	Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity	$0.0	$0.1	$0.2	$0.2	$0.3	$0.8	$0.4	$0.5	$0.6	$0.7	$0.8	$3.0
3.1.1 Distribution Capital Program Delivery Optimization (Overtime)	Implemented operational changes, including team realignment, dedicated construction technicians, and seasonal shift adjustments, to enhance collaboration, efficiency, and productivity	$0.0	$0.0	$0.1	$0.1	$0.1	$0.3	$0.1	$0.1	$0.2	$0.2	$0.2	$0.8
3.1.2 Fleet Pooling	Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees	n/a	n/a	n/a	n/a	n/a	n/a	$0.1	$0.1	$0.2	$0.3	$0.3	$1.0
3.1.4 Service Layout Process Improvements	Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1	$0.2

[4] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.5 Major Projects Consulting Procurement	Consolidated civil and electrical engineering services under a single consultant to streamline project coordination and reduce costs.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1	$0.1	$0.2
3.1.6 Vendor and Supplier Engagement	Fostered strong relationships with vendors and suppliers, resulting in favourable pricing for critical equipment relative to industry averages	$0.0	$0.0	$0.0	$0.1	$0.1	$0.2	$0.1	$0.1	$0.1	$0.1	$0.1	$0.4
3.2.4 Customer Relationship Management (CRM) Platform Implementation	Replacement of legacy service desk with a comprehensive CRM system to automate workflows and improve efficiency	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1	$0.0	$0.0	$0.0	$0.0	$0.1	$0.2
3.2.7 Blue Beam for Plant Inspectors	Digitalized project documentation and plant inspections, reducing paper use and improving workflow efficiency.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1	$0.0	$0.0	$0.0	$0.1	$0.1	$0.2
3.2.10 Damage to Plant Process Automation	Implemented a Google Form-based system for faster and more efficient reporting of infrastructure damage.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.3.1 Protection Relays Design Standard	Optimized the placement of protection relays in substations, reducing wiring costs and eliminating the need for separate relay buildings.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.1
Total Capital Depreciation		$ 0.1	$ 0.2	$ 0.3	$ 0.4	$ 0.5	*$1.5*	$ 0.7	$ 0.9	$ 1.3	$ 1.5	$ 1.7	*$6.1*

1

ORIGINAL Table D - OM&A ($'000 000s)[5]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.2 Fleet Pooling	Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees	n/a	n/a	n/a	n/a	n/a	n/a	$0.1	$0.1	$0.2	$0.2	$0.2	$0.9
3.1.3 Cable Locates Efficiency	Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.	$0.0	$0.3	$0.7	$0.5	$0.8	$2.4	$0.7	$0.7	$0.7	$0.8	$0.8	$3.7
3.2.1 Net Metering Automation	Streamlined net metering billing processes, saving significant labor hours per month.	n/a	n/a	n/a	n/a	n/a	n/a	$0.2	$0.6	$1.4	$1.9	$2.6	$6.8
3.2.2 Online Billing Enhancements	Expanded online billing, reducing mailing and printing costs (with ancillary savings related to Account Overdue Notices)	$0.2	~~$0.8~~	~~$1.0~~	$1.5	~~$2.9~~	~~$6.4~~	$0.5	~~$0.8~~	~~$1.1~~	~~$1.4~~	~~$1.7~~	~~$5.5~~
3.2.3 Remote Disconnection Technology	Expanded use of remote disconnect meters, reducing labor costs for service terminations and reconnections..	$0.3	$0.4	$0.5	$0.8	$0.9	$2.9	$0.9	$0.9	$1.0	$1.0	$1.1	$4.9

[5] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.2.5 Disconnection Notification Automation	Replacement of manual delivery of disconnection notices with automated notifications	$0.3	$0.4	$0.4	$0.4	$0.4	$1.8	$0.4	$0.4	$0.4	$0.5	$0.5	$2.2
3.2.6 Satellite Imaging for Vegetation Management	Used satellite data to identify high-risk vegetation areas and optimize trimming schedules.	n/a	n/a	n/a	n/a	n/a	*n/a*	~~$0.2~~	~~$0.4~~	~~$0.4~~	~~$0.4~~	~~$0.4~~	~~*$1.6*~~
3.2.8 Move-In Move-Out Automation	Automated customer move-in/move-out requests to reduce manual processing and errors.	$0.0	$0.0	$0.1	$0.2	$0.2	*$0.5*	$0.2	$0.2	$0.2	$0.2	$0.2	*$0.9*
3.2.9 Salesforce Field Service for Reliability Operations	Centralized work requests and scheduling, reducing reliance on manual communication and increasing productivity.	$0.0	$0.0	$0.0	$0.0	$0.1	*$0.1*	$0.1	$0.1	$0.2	$0.2	$0.2	*$0.8*
3.2.11 Customer Information System Reduced Fees	Reduced managed service costs	$0.3	$0.2	$0.0	$0.0	$0.0	*$0.5*	n/a	n/a	n/a	n/a	n/a	*n/a*
OM&A Total:		$ 1.1	$ 2.1	$ 2.7	$ 3.4	$ 5.3	~~*$14.7*~~	~~$ 3.4~~	~~$ 4.2~~	~~$ 5.5~~	~~$ 6.5~~	~~$ 7.6~~	~~*$27.3*~~

UPDATED Table D - OM&A ($'000 000s)[6]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.2 Fleet Pooling	Fleet pooling pilot program, allowing for more effective and extensive sharing of corporate vehicles by field crews, supervisors and administrative employees	n/a	n/a	n/a	n/a	n/a	n/a	$0.1	$0.1	$0.2	$0.2	$0.2	$0.9
3.1.3 Cable Locates Efficiency	Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.	$0.0	$0.3	$0.7	$0.5	$0.8	$2.4	$0.7	$0.7	$0.7	$0.8	$0.8	$3.7
3.2.1 Net Metering Automation	Streamlined net metering billing processes, saving significant labor hours per month.	n/a	n/a	n/a	n/a	n/a	n/a	$0.2	$0.6	$1.4	$1.9	$2.6	$6.8
3.2.2 Online Billing Enhancements	Expanded online billing, reducing mailing and printing costs (with ancillary savings related to Account Overdue Notices)	$0.2	$0.7	$0.9	$1.5	$2.8	$6.3	$0.5	$0.7	$1.0	$1.2	$1.5	$5.0
3.2.3 Remote Disconnection Technology	Expanded use of remote disconnect meters, reducing labor costs for service terminations and reconnections..	$0.3	$0.4	$0.5	$0.8	$0.9	$2.9	$0.9	$0.9	$1.0	$1.0	$1.1	$4.9

[6] Totals may not sum due to rounding.

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.2.5 Disconnection Notification Automation	Replacement of manual delivery of disconnection notices with automated notifications	$0.3	$0.4	$0.4	$0.4	$0.4	$1.8	$0.4	$0.4	$0.4	$0.5	$0.5	$2.2
3.2.6 Satellite Imaging for Vegetation Management	Used satellite data to identify high-risk vegetation areas and optimize trimming schedules.	n/a	n/a	n/a	n/a	n/a	n/a	$0.0	$0.2	$0.2	$0.3	$0.3	$1.1
3.2.8 Move-In Move-Out Automation	Automated customer move-in/move-out requests to reduce manual processing and errors.	n/a	$0.0	$0.1	$0.2	$0.2	$0.5	$0.2	$0.2	$0.2	$0.2	$0.2	$0.9
3.2.9 Salesforce Field Service for Reliability Operations	Centralized work requests and scheduling, reducing reliance on manual communication and increasing productivity.	n/a	n/a	n/a	n/a	$0.1	$0.1	$0.1	$0.1	$0.2	$0.2	$0.2	$0.8
3.2.11 Customer Information System Reduced Fees	Reduced managed service costs	$0.3	$0.2	n/a	n/a	n/a	$0.5	n/a	n/a	n/a	n/a	n/a	n/a
OM&A Total:		$ 1.1	$ 2.1	$ 2.7	$ 3.4	$ 5.3	*$14.5*	$ 3.2	$ 4.1	$ 5.3	$ 6.2	$ 7.4	*$26.3*

1

Table E - Services to Third Parties ($'000 000s)[7]

Initiative	Description	Productivity Benefits											
		2021	2022	2023	2024	2025	2021-2025	2026	2027	2028	2029	2030	2026-2030
3.1.4 Service Layout Process Improvements	Used Salesforce analytics and targeted training to improve service layout efficiency and reduce backlogs.	$0.0	$0.0	$0.0	$0.1	$0.2	$0.3	$0.2	$0.2	$0.2	$0.2	$0.2	$1.0
3.2.4 Customer Relationship Management (CRM) Platform Implementation	Replacement of legacy service desk with a comprehensive CRM system to automate workflows and improve efficiency	$0.1	$0.1	$0.1	$0.1	$0.1	*$0.6*	$0.1	$0.1	$0.2	$0.2	$0.2	*$0.8*
Total Services to Third Parties		**$ 0.1**	**$ 0.1**	**$ 0.1**	**$ 0.2**	**$ 0.3**	***$0.9***	**$ 0.3**	**$ 0.3**	**$ 0.4**	**$ 0.4**	**$ 0.4**	***$1.9***

[7] Totals may not sum due to rounding.

INTERROGATORY RESPONSES TO SCHOOL ENERGY COALITION

4-SEC-72

EVIDENCE REFERENCE:

[Ex. 4-1-2, Appendices 2-JB and 2-JC]

QUESTION(S):

Please complete Excel file 4-SEC-72, by mapping the cost drivers amounts shown in Appendix 2-JB to the Program variances from Appendix 2-JC as shown in the following table. (Note available information from the Exhibit has already been shown as examples).

RESPONSE(S):

Please see completed Excel Attachment 4-SEC-72(A) - Appendix 2-JC by Appendix 2-JB Cost Drivers 2026.

4-SEC-72

Programs	Variance between 2025/2026	Inflation	Labour	Proactive Distribution Maintenace	New IT	Other	Total $M
Drivers	$M						
Testing, Inspection & Maintenance	$ 6.1	$ 0.1	-	$ 4.6	-	$ 1.4	$ 6.1
Vegetation Management	$ 0.3	$ 0.1	-	-	-	$ 0.2	$ 0.3
Underground Locates	$ 0.7	$ 0.2	-	-	-	$ 0.5	$ 0.7
Stations Maintenance	$ 0.9	$ 0.1	-	-	-	$ 0.8	$ 0.9
Distribution Overhead & Underground Maintenance	$ (0.3)	$ 0.1	-	-	-	$ (0.4)	$ (0.3)
Metering	-	$ 0.1	$ 0.2	-	-	$ (0.3)	-
System Operations & 24/7	$ (0.2)	$ 0.2	-	-	-	$ (0.4)	$ (0.2)
Engineering & Design	$ 6.3	$ 0.3	$ 1.5	-	$ 3.0	$ 1.6	$ 6.3
Distribution Support	$ 0.1	$ 0.0	$ 2.3	-	$ 0.3	$ (2.6)	$ 0.1
Minor Maintenance	$ 0.7	-	-	-	-	$ 0.7	$ 0.7
Collections	$ 0.2	$ 0.1	-	-	-	$ 0.1	$ 0.2
Customer Billing	$ 0.5	$ 0.4	$ 0.1	-	$ 0.7	$ (0.7)	$ 0.5
Customer & Community Relations	$ 1.4	$ 0.3	$ 0.1	-	$ 1.7	$ (0.7)	$ 1.4
Information Management & Technology	$ 1.7	$ 0.4	$ 0.7	-	$ 0.3	$ 0.3	$ 1.7
Safety, Environment & Business Continuity	$ 0.4	$ 0.1	$ 0.4	-	-	$ (0.2)	$ 0.4
Human Resources	$ 0.3	$ 0.1	$ 0.2	-	$ 0.2	$ (0.2)	$ 0.3
Supply Chain	$ 0.2	$ 0.0	-	-	-	$ 0.2	$ 0.2
Facilities	$ 0.5	$ 0.3	-	-	-	$ 0.2	$ 0.5
Finance	-	$ 0.1	-	-	-	$ (0.1)	-
Regulatory Affairs	$ 0.6	$ 0.1	-	-	-	$ 0.5	$ 0.6
Corporate Costs	$ 0.7	$ 0.3	-	-	-	$ 0.4	$ 0.7
Total	$ 21.1	$ 3.6	$ 5.5	$ 4.6	$ 6.1	$ 1.3	$ 21.1

Hydro Ottawa

Enterprise IT Spending & Staffing Benchmark

Final Report

June 3, 2024

Engagement Number: 330087697

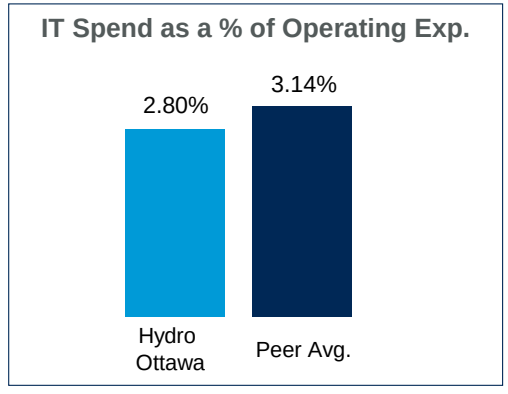
Gartner®

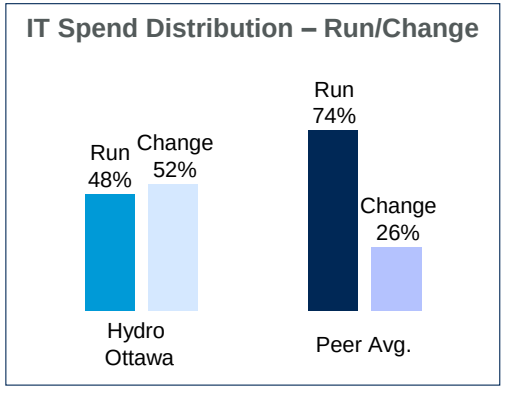
Table of Contents

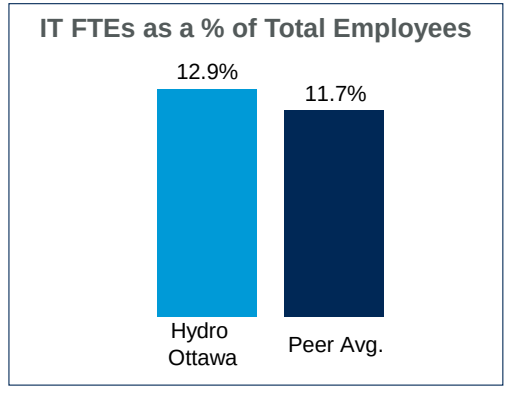
1.0
Executive Summary

Hydro Ottawa's 2023 IT Spend was slightly lower to similar electric utility organizations, and much more spend was allocated to Growth & Transformation ("change the business")

- For benchmarking purposes, Hydro Ottawa was compared to a custom peer group of 9 electric utility organizations and Gartner's IT Key Metrics Data for the broader Utilities industry. **Hydro Ottawa's total IT spend for 2023 was $27.2 million.**
- **IT Spending was 11% less than the custom peer group average**; IT Spend as a % of Operating Expense was 2.80% compared to an average of 3.14% for the peer group. The slightly lower level of spend can be attributed to lower levels of Run spend. Real dollar spending on IT Run costs were significantly less than peers ($1.34 for Hydro Ottawa vs. $2.32 for peers per $100 in total operating expenses).
- **Hydro Ottawa allocated double the spend to "change the business" activities than the peer group average** (52% of IT Spending vs. 26%). These investments were aligned to Hydro Ottawa's strategic priorities, specifically to "accelerate digital transformation to enable sustainable business practices" and "continue to provide best-in-class customer service".
- **Hydro Ottawa's IT staffing levels were slightly higher than the peer group average** (12.9% IT FTEs as a % of Total Employees vs. 11.7%). In addition to internal IT FTEs, Hydro Ottawa relies on an ecosystem of vendor partners for specialized skills, largely for Applications Development work.

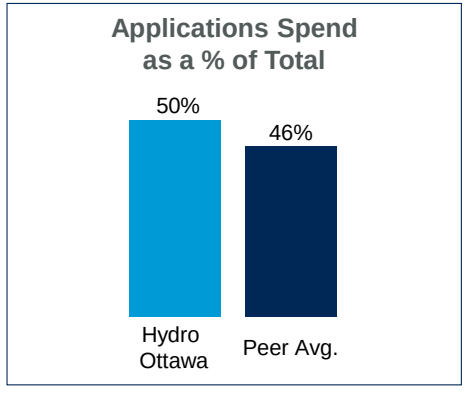


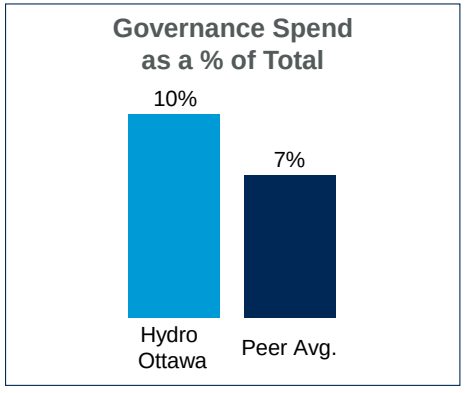


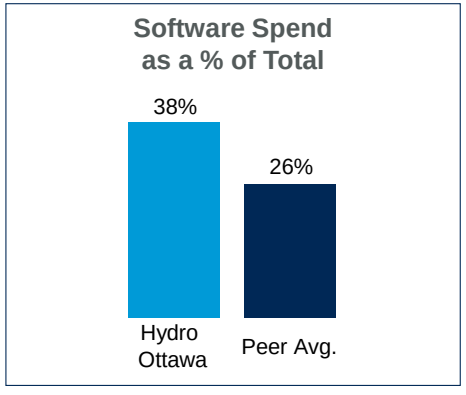


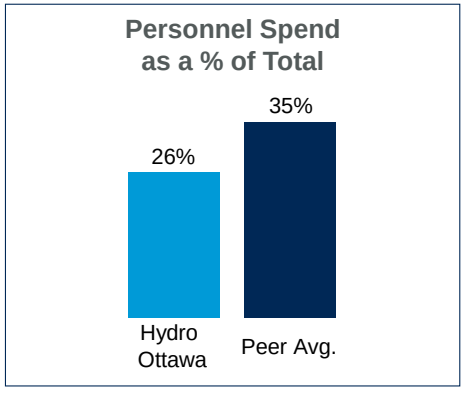
Hydro Ottawa has aggressively moved Applications to the cloud, yet allocation to Application spending remains in-line with peers; allocation to software is materially higher than peers

- **Hydro Ottawa allocated a similar amount of spend to Applications than the peer group** average (50% of IT spend vs. 46%). Over the last several years, Hydro Ottawa has taken a cloud-first approach by replacing legacy on-prem solutions with cloud-based solutions with vendors such as Workday and Salesforce. During these periods of transition, Applications costs can trend higher, however Hydro Ottawa has managed the transition in a cost-effective manner.
- **Allocation to Governance & Business Management is higher** than the peer group (10% of IT spending vs. 7%). This category of spend includes Enterprise Architecture and Business Relationship Management which are important in managing relations with the business. Hydro Ottawa reported that the relationship with the business has been improving towards "partnership" over the last several years.
- **Allocation to Infrastructure (Data Center & Network) is lower** than the peer group (23% of IT spending vs. 27%).
- **Overall allocation to Software spending is materially higher than the peer group** (38% of IT spend vs. 26%). This is likely the result of the period of transition from moving from an on-premises to a Software-as-a-Service licensing model in support of the cloud-first strategy.
- Overall allocation to **Personnel spending is significantly less** than the peer group average (26% vs. 35%), even though the allocation to External Services is also lower (28% versus 31%). This suggests that Hydro Ottawa is receiving good "value for money" from its ecosystem of partners. Personnel spending was lower than planned in 2023 due to a 3-month labour disruption.









Hydro Ottawa should leverage key findings from this assessment to optimize technology spend to support investments in digital

Sourcing View of IT Spend

Peers	Hydro Ottawa
65%	**74%** of IT Spend **Vendors and Contracts** Renegotiate contracts, optimize service models and consolidate vendors
35%	**26%** of IT Spend **IT Staffing and Maturity** Shift labor to lower-cost scenarios, right-size teams and automate manual processes
100%	100%

Technology View of IT Spend

Hydro Ottawa	Peers
60% of IT Spend **Applications*** Rationalize the portfolio, prioritize demand and investments and optimize development and support delivery	53%
40% of IT Spend **Infrastructure and IT Management** Consolidate data centres, shift to the cloud, and align service models to business needs	47%
100%	100%

*Includes Application Support, Applications Development and Governance & Business Management

2.0
Objectives & Approach

Business context and engagement objectives

Business Context

- Hydro Ottawa is seeking an independent and objective expert benchmark of its overall IT spend and staffing position relative to comparable peer organizations.
- In the short-term, this spending and staffing benchmark will provide data driven insights for the organization's regulatory filing and provide inputs for developing a roadmap of initiatives for Hydro Ottawa's IT Leaders to drive improvements.
- Longer term, these spending and staffing benchmarking insights can inform the IT strategy and future direction.

Engagement Objectives

Gartner combined several unique and proprietary assets and capabilities that will give Hydro Ottawa a fact-based, objective starting point for its ongoing strategic direction. These capabilities include Gartner's world-leading IT Benchmark database to build a custom peer group for Hydro Ottawa, to understand the current state in key IT enterprise-level spending and staffing measures.

Outcomes of the engagement include:

- A current state summary of Hydro Ottawa's IT spend and staffing levels relative to peers with a comparable environment that will identify optimization opportunities to focus future strategic efforts.
- A set of recommendations based on the comparative analysis that will advance Hydro Ottawa in areas directly impactful to the to IT and business objectives.
- Guidance on appropriate re-measurement periods and the foundation to measure progress objectively.

Spending & Staffing Benchmark Methodology Overview

Gartner used its industry-leading benchmarking consensus models to evaluate total IT Spending and Staffing relative to a hand selected group of industry peers and IT Key Metrics Data for the Utilities industry.

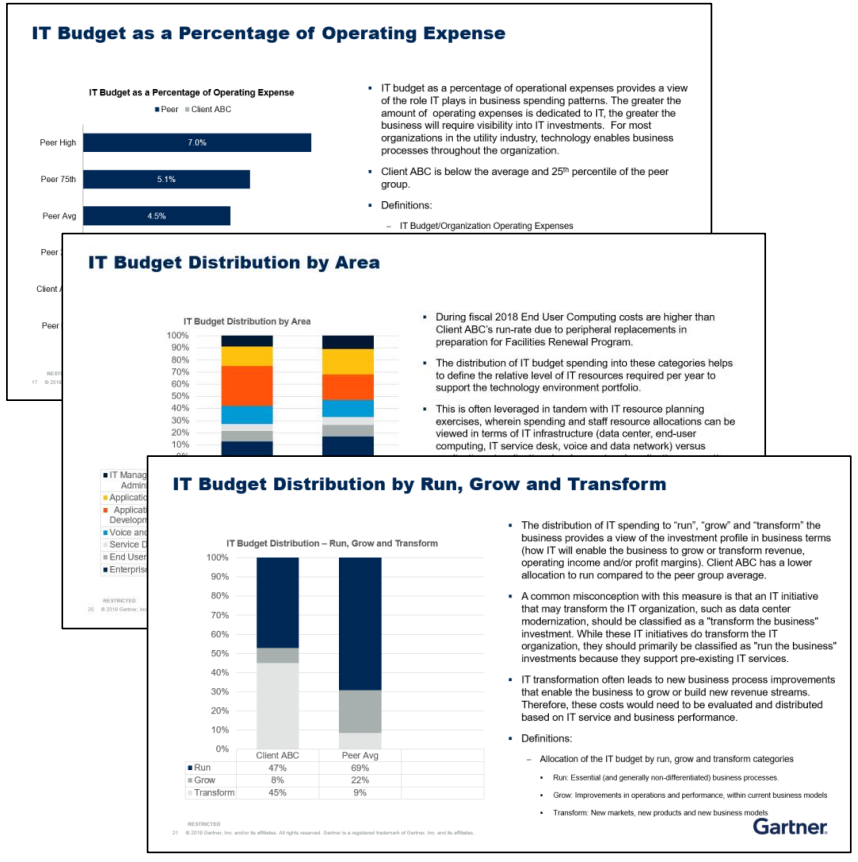
The Enterprise View: IT Spending and Staffing Assessment analysis will provide and compare the following metrics:

Spending Measures

- IT Spending as a % of Revenue
- IT Spending as a % of Operating Expense
- IT Spending Per Employee
- Capital vs. Operational Spending
- Run vs. Grow vs. Transform Spending
- Distribution of IT Spend—Hardware, Software, Personnel, Outsourcing, Other
- Distribution of IT Spend—by IT Function

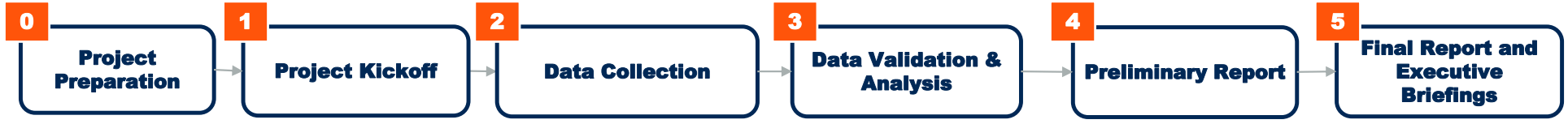
Staffing Measures

- IT Staff as a % of Company Employees
- IT Contractor Usage
- Distribution of IT Support—by IT Function



Enterprise IT Spending & Staffing Benchmark

Approach Overview



Objectives

0 Project Preparation	1 Project Kickoff	2 Data Collection	3 Data Validation & Analysis	4 Preliminary Report	5 Final Report and Executive Briefings
▪ Mutual objectives ▪ Engagement plan	▪ Confirmed scope ▪ Stakeholder alignment	▪ Gather Hydro Ottawa data required for analysis	▪ Confirm Hydro Ottawa data	▪ Consolidate analysis and develop recommendations	▪ Finalize report ▪ Conduct briefings

Key Activities

0 Project Preparation	1 Project Kickoff	2 Data Collection	3 Data Validation & Analysis	4 Preliminary Report	5 Final Report and Executive Briefings
▪ Pre-Kickoff planning call. ▪ Preview all relevant client information requirements and stakeholders. ▪ Discuss high-level approach and key steps to prepare for a formal kickoff.	▪ Hold kickoff meeting to ensure a common understanding of objectives, scope, schedule, roles and responsibilities. ▪ Participate in any broader socialization efforts agreed to during project preparation. ▪ Distribute and review any data collection materials.	▪ Conduct data collection kick off workshop, distribute IT spending and staffing data collection template and explain text documents ▪ Support Hydro Ottawa's data collection activities ▪ Conduct up to 6 IT Leadership interviews to discuss current state, opportunities, etc.	▪ Develop peer group based on industry, scale, scope and nature of operations. ▪ Verify information gathered and compare verify for accuracy / completeness. ▪ Complete a comparative analysis and develop a materials for data validation workshop. ▪ Review summary of preliminary analysis (key observations and strategic implications) with project team	▪ Leverage Gartner IP (research and benchmark data) to conduct analysis and develop recommendations based on findings ▪ Conduct workshop with core Hydro Ottawa team to get feedback on analysis and recommendations. ▪ Develop a re-measurement plan to assess progress over time	▪ Finalize major work products including the Final report. ▪ Develop executive summary briefing version. ▪ Brief executives.

Deliverables

0 Project Preparation	1 Project Kickoff	2 Data Collection	3 Data Validation & Analysis	4 Preliminary Report	5 Final Report and Executive Briefings
▪ N/A	▪ Project Kick Off Materials	▪ Data collection templates ▪ Interview guides	▪ Benchmark data validation workshop materials	▪ Summary of Key Findings and Implications (IT spending and staffing and maturity) ▪ Preliminary Report	▪ Final report, including Executive Summary ▪ Briefing(s)

3.0
Enterprise IT Spending & Staffing Analysis

Analysis Notes

- Hydro Ottawa's data submission for this benchmarking engagement includes:
  - 2023 actuals for Revenue, Operating Expenses (including power recovery and cost of power) and Total Employees
  - 2023 actuals for IT Spending & Staffing
  - Operational Technology spending and staffing is not included

- Peer Group data is from 2022-2023

- Gartner's IT Key Metrics Data (ITKMD) is from 2023

Peer Group Profiles

Primary peer group for comparative analysis

Selection Criteria	
Primary Criteria	Utilities Industry
Secondary Criteria	Electrical Utilities, Total Revenue, Total Operating Expenses, # of Employees and Geography

Custom Peer Group Profile		
Number of Organizations	9	
Geographical Location	Canada, USA, Europe, New Zealand	
	Hydro Ottawa*	**Peer Group Average**
Total Revenue	**$1.1 Billion**	**$1.5 Billion**
Total Operating Expense	**$0.97 Billion**	**$1.2 Billion**
Total Employees	**641**	**1,096**

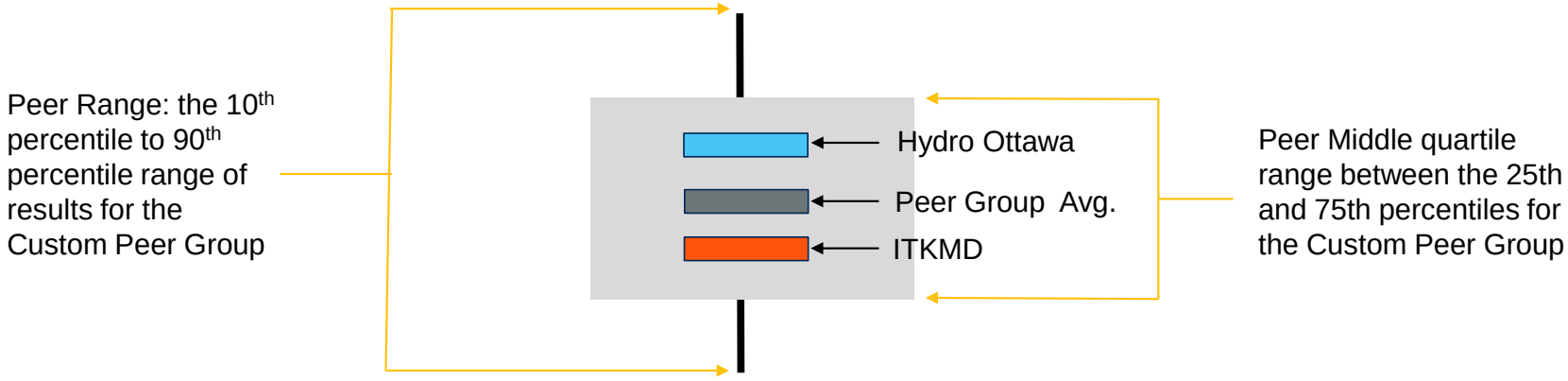
Secondary peer group for additional context

2023 IT Key Metrics Data (ITKMD) Utilities
140
Global
$4.9 Billion
4,000
2023 ITKMD

* Hydro Ottawa data is for fiscal year ending December 31, 2023 (12 months actuals)
** All analysis is in Canadian dollars, using the exchange rate of 1 USD = 1.35 CAD

Benchmark Analysis Methodology
Peer Comparisons

Hydro Ottawa's results are displayed in comparison with the following reference points:



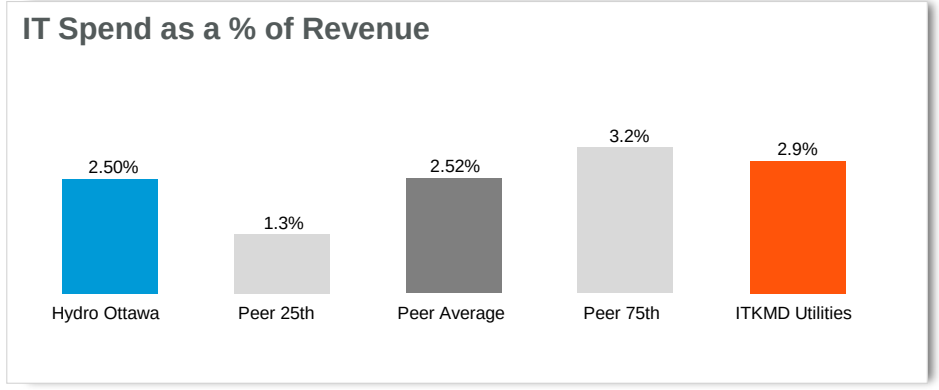
There are not necessarily "good" or "bad" results for any individual metric.

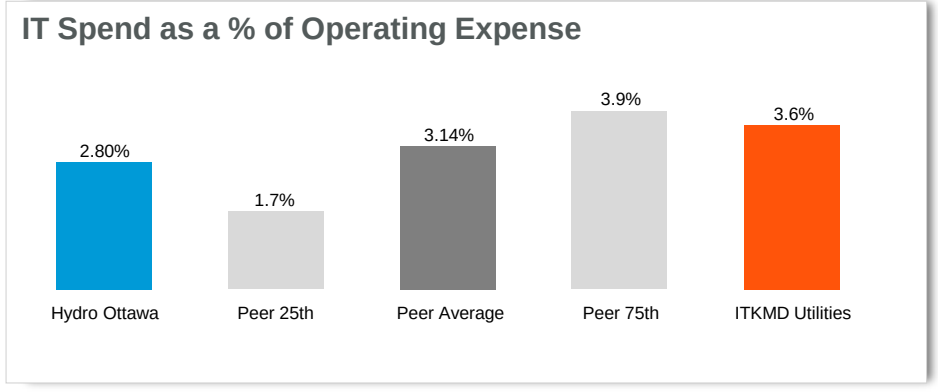
Differences in spending and staffing metrics derived from this analysis provide insight into current strategic IT investment levels versus your competitive landscape.

These measures should also be considered within the context of your future state organizational objectives.

3.1
IT Spending

Hydro Ottawa's overall 2023 IT Spend was slightly lower than industry peers

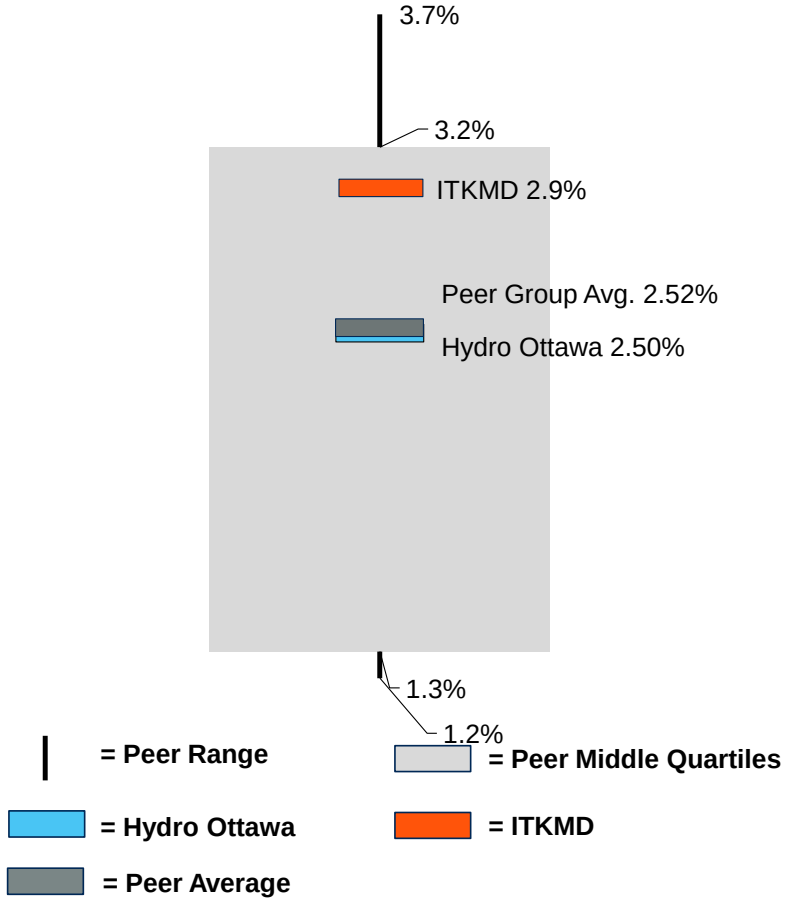




Observations / Implications

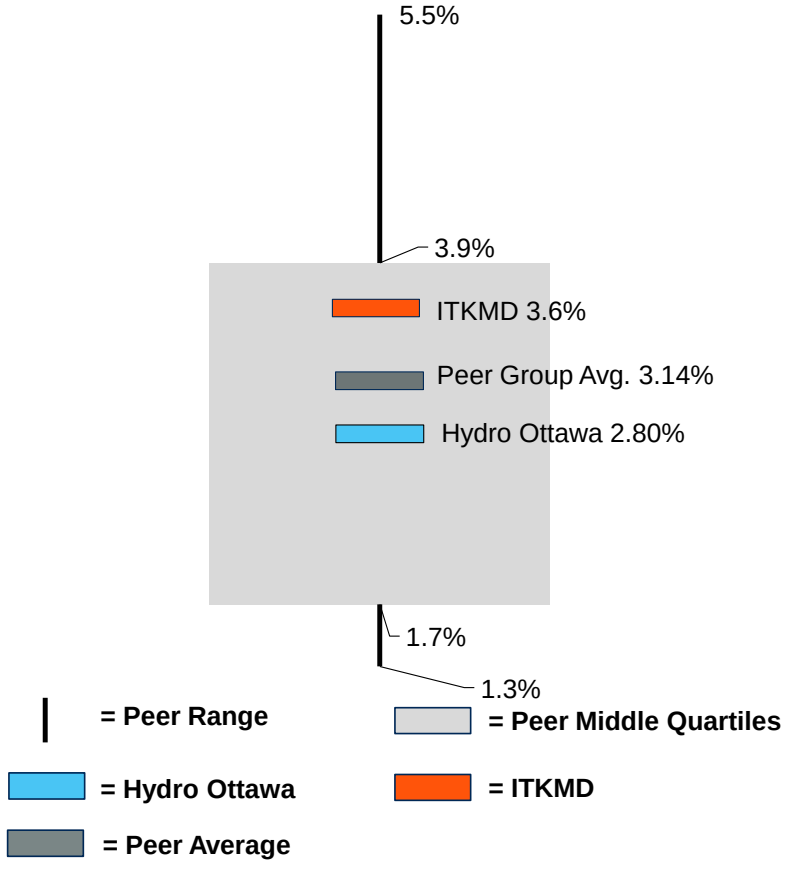
- Hydro Ottawa's 2023 IT Spending was $27.2 million. IT Spend as a % of Revenue was 2.50% compared to an average of 2.52% for the peer group average. IT Spending as a % of Operating Expenses was 2.80% compared to an average of 3.14% for the peer group. Both these metrics indicate that Hydro Ottawa's overall IT spend level was slightly lower than the peer group average and Gartner's IT Key Metrics Data for the Utilities industry.
- The "right" level of IT spend is the level that will deliver the necessary IT solutions that will enable Hydro Ottawa to deliver on its business objectives, in a cost-effective manner. Investing an additional dollar in IT makes sense if it can reduce operational costs elsewhere in the business.
- To ensue value for money from all IT investments, it will be important for Hydro Ottawa focus on continuing to develop Strategic Cost Optimization capabilities.

IT Spend as a Percentage of Revenue



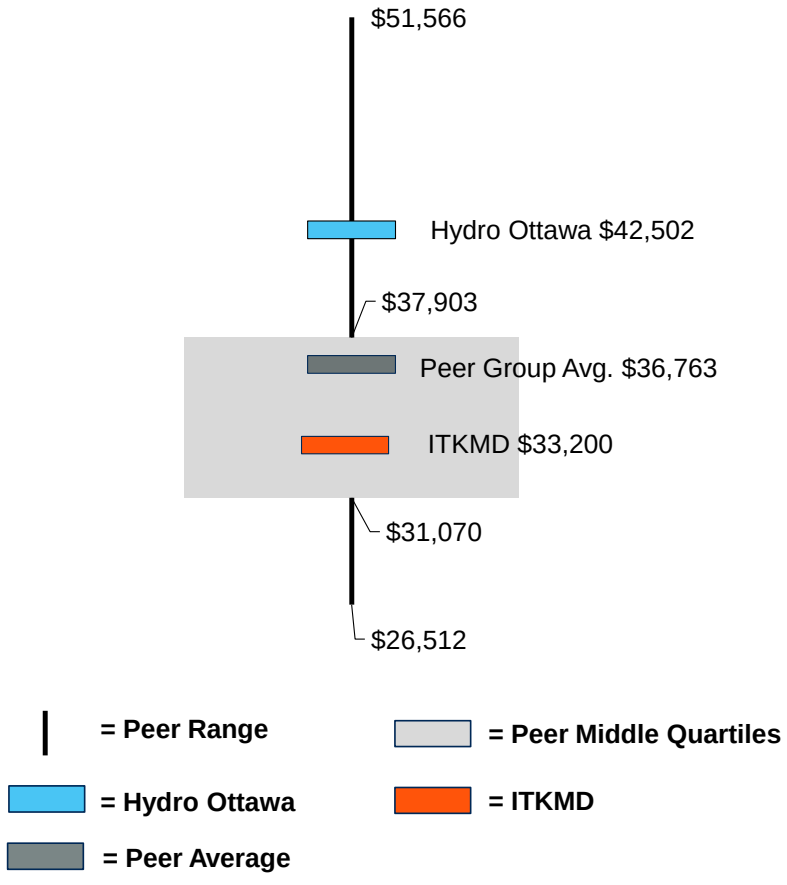
Description	• IT spending as a percentage of revenue provides a view of the role IT plays in the spending patterns of the organization. The greater the amount of the operational expenses that is dedicated to IT, typically the greater need for visibility into the IT investments the organization will require.	
Definition	IT Spending includes capital and operations spending for technology during the study period, including labour, software, hardware, telecommunications expenses; includes project spending	
Calculation	IT Spend / Revenue	**Hydro Ottawa: $27,225,895 / $1,089,452,264**

IT Spend as a Percentage of Operational Expense



Description	• IT spending as a percentage of operational expenses provides a view of the role IT plays in the spending patterns of the organization. The greater the amount of the operational expenses that is dedicated to IT, typically the greater need for visibility into the IT investments the organization will require.	
Definition	IT Spending includes capital and operations spending for technology during the study period, including labour, software, hardware, telecommunications expenses; includes project spending	
Calculation	IT Spend / Operational Expense	**Hydro Ottawa: $27,225,895 / $973,530,264**

IT Spend per Employee

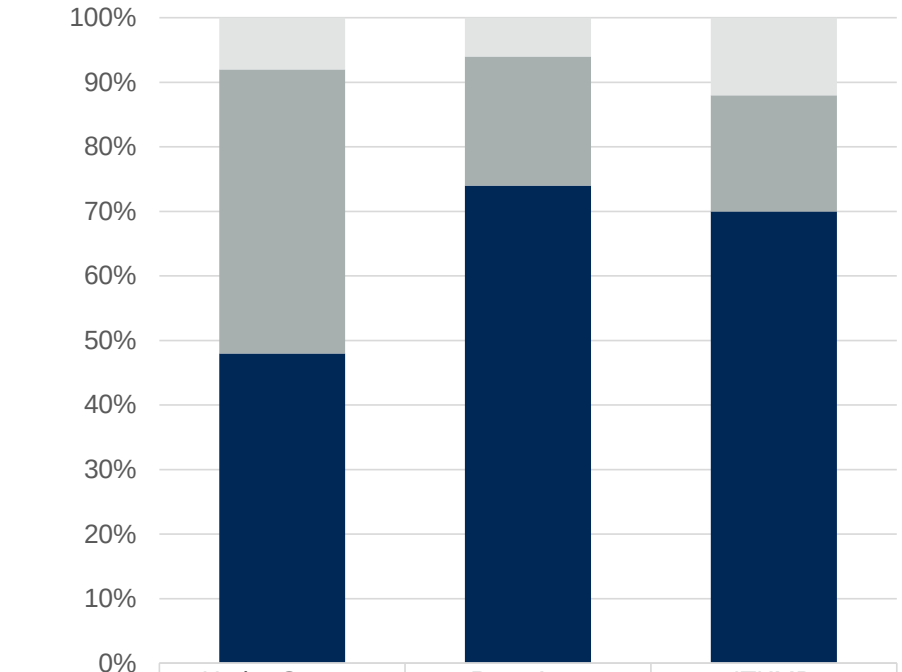


Observations / Implications

- IT Spend per Employee for Hydro Ottawa ($42,502) is higher than the peer group average of $36,763, this is largely the result of Hydro Ottawa's lower number of employees than the peer group average (641 versus 1,096)
- This metric is calculated using Hydro Ottawa's 641 organizational employees, and does not consider any contractor workforce
- Hydro Ottawa should continue to evaluate IT investments that will enable all staff and business functions to improve productivity and modernize their operations. This could lead to reduced costs in other parts of the organization (i.e., Finance, HR)

Description	• IT spending per employee provides insight into the amount of technology support an organization's workforce receives. • High spending can imply higher levels of automation and/or higher investment in IT in general. Low spending levels can be related to higher overall staffing levels and or lower IT investment than peers. • Large variations within industry groups can represent different business models for service or product delivery.	
Definition	IT Spending includes capital and operations spending for technology during the study period, including labour, software, hardware, telecommunications expenses and includes project spending. Organization Employees includes staff, exclusive of Contractors.	
Calculation	IT Spending / Organization Employees	**Hydro Ottawa: $27,225,895 / 641**

IT Spend Distribution by Run, Grow and Transform



	Hydro Ottawa	Peer Avg.	ITKMD
Transform	8%	6%	12%
Grow	44%	20%	18%
Run	48%	74%	70%

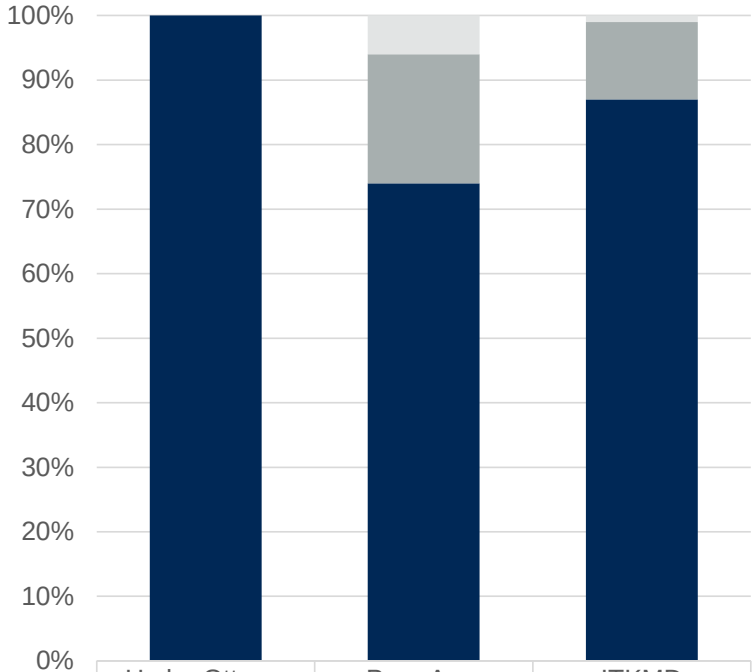
Observations / Implications

- In 2023, Hydro Ottawa allocated 52% of IT Spending to Growth / Transformation (i.e., “change the business” activities), two times more than the peer group average of 26%.
- This is the result of significant investments made in “change the business” activities. These investments are aligned to Hydro Ottawa’s strategic priorities, specifically to “accelerate digital transformation to enable sustainable business practices” and “continue to provide best-in-class customer service”.
- Grow / Transform spending does not include investments in updating aging infrastructure, this is included in Run spending (i.e., OMS upgrade, Windows upgrade).

Description	• The distribution of IT spending provides a view of the investment profile in business terms (how IT will enable the business to grow or transform revenue, operating income and/or profit margins)
Definition	Allocation of IT Spending by Run, Grow and Transform, where: • Run: Essential (and generally non-differentiated) business processes. • Grow: Improvements in operations and performance, within current business models • Transform: new services and new operating models

Gartner

IT Spend Distribution by Funding Source



	Hydro Ottawa	Peer Avg.	ITKMD
Shadow IT		6%	1%
Business Unit IT		20%	12%
Formal IT Budget	100%	74%	87%

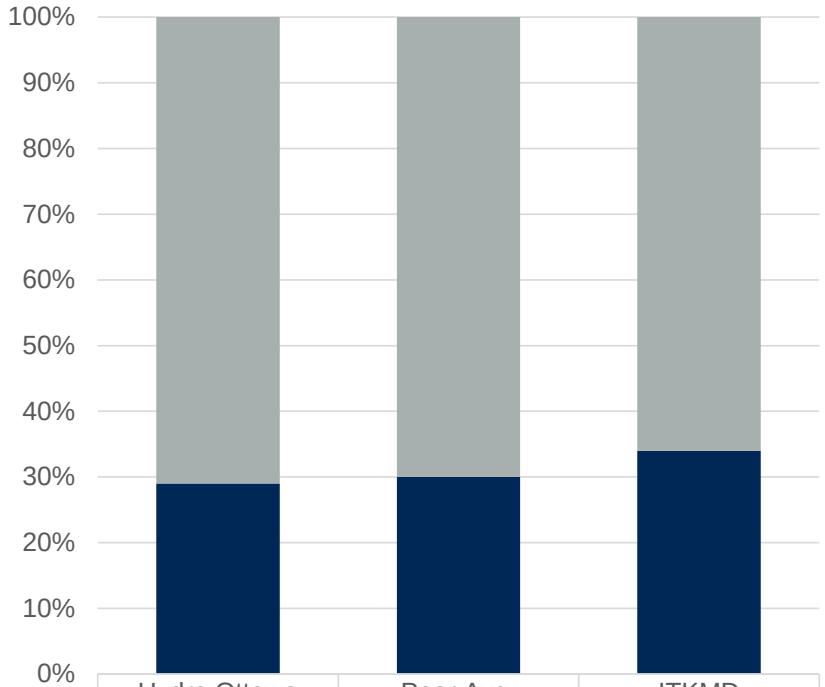
Note: some Shadow IT exists at Hydro Ottawa, however it is relatively small and difficult to identify for inclusion in IT spend

Observations / Implications

- Hydro Ottawa's IT spend is more centralized than the peer group average with IT controlling 100% of the spend, compared to an average of 74% for centralized IT within the peer group.
- In organizations with highly centralized IT spend, it is important that there is a high level of transparency with the business, so they understand the allocation of IT resources and the impact of their decisions on IT spending.

Description	• IT spending can come from various sources within an organization and is not restricted to the formal IT budget. Additional spending can occur within business unit budgets and be what is known as "shadow IT."
Definition	Allocation of IT Spending by: • IT Organization • Business Unit (formally outside IT) • Shadow IT (informally outside IT)

IT Spend Distribution – Operations vs. Capital



	Hydro Ottawa	Peer Avg.	ITKMD
Operational	71%	70%	66%
Capital	29%	30%	34%

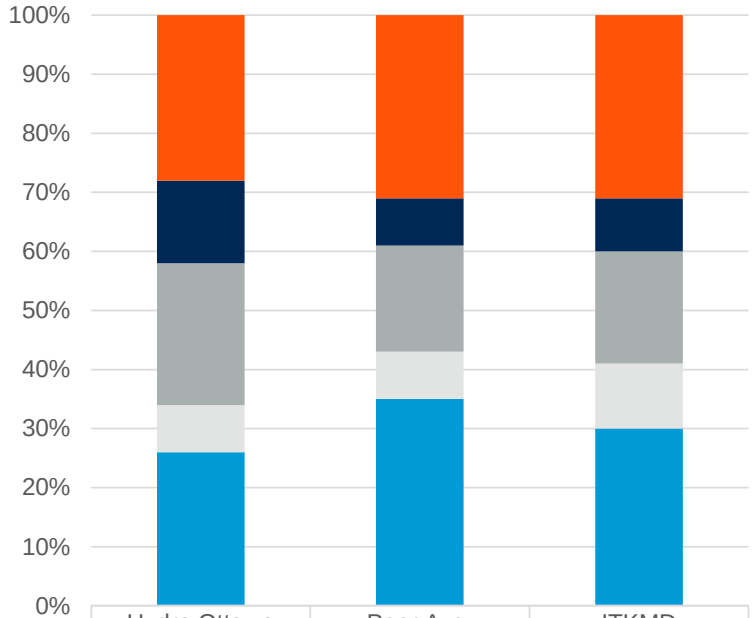
Observations / Implications

- Hydro Ottawa allocated a similar amount of its IT spending to capital (29%) than the peer group average of 30%.
- Applications and Infrastructure are increasingly cloud-based, creating an escalating shift away from more traditional capital-based models to operational funding. Hydro Ottawa has seen a 6-7% increase in OpEx over the last several years.
- There can be unanticipated or overlooked operating budget increases as a result of SaaS and IaaS contracts. The resultant shift from capital expenditure (CapEx) to operating expenditure (OpEx) can cause budgetary and cost management pressures.

Description	• IT capital expenses vs. operational expenses helps to portray the investment profile for an organization in a given year.
	• Organizations with a higher capital spending may…
	  ○ Be investing heavily in strategic IT infrastructure
	  ○ Have reached a planned point of investment in their infrastructure lifecycle
	  ○ Not have been managing asset investments well (i.e., “catching up”)
	  ○ Simply have a more aggressive capitalization policy
	• The break out of Run, Grow, Transform spending that follows may provide more insight

Definition	Distribution of IT Operational spending versus Capital spending

IT Spend Distribution by Cost Category



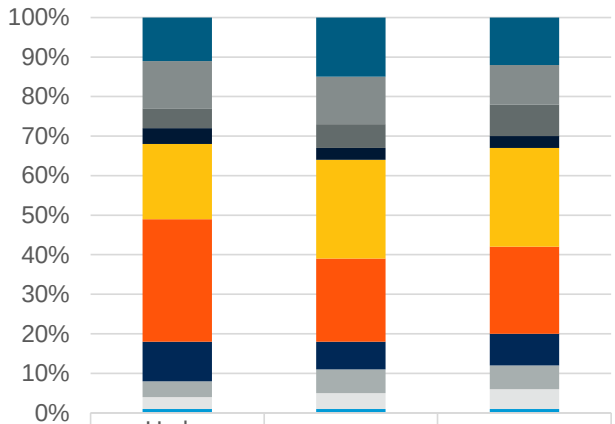
	Hydro Ottawa	Peer Avg.	ITKMD
External Services	28%	31%	31%
Software (SaaS)	14%	8%	9%
Software (On-Prem)	24%	18%	19%
Hardware	8%	8%	11%
Personnel	26%	35%	30%

Observations / Implications

- Hydro Ottawa relies less on Personnel (26% of IT spend) than the peer group (35%). Typically, a lower allocation to Personnel results in a higher allocation to External Services, however this is not the case for Hydro Ottawa (28% versus an average of 31% for the peer group). Personnel spending was lower than planned in 2023 due to a 3-month labour disruption.
- Leveraging External Services is an important element of Hydro Ottawa's delivery model. A strong ecosystem of vendor partners is used to access highly skilled resources.
- Hydro Ottawa's overall allocation to software is materially higher than the peer group (38% versus 26%) and has appeared to have adopted the SaaS licensing model much more quickly, while consolidating / transitioning on-prem systems.
- Allocation to hardware is same as the peer group average.

Description	• This measure can be helpful in adding context to the IT investment strategy from a sourcing perspective, in terms of accounting-based resources that may be insourced versus services delivered by a third party. • As an organization increases or decreases the level of outsourced services, it may find an inverse effect in its associated personnel, hardware and/or software expenditures, depending on the scope of services retained and on requirements.
Definition	Allocated IT Spending among the different cost categories

IT Spend Distribution by IT Functional Area



	Hydro Ottawa	Peer Avg.	ITKMD
Data Center	11%	15%	12%
Network	12%	12%	10%
Workplace Services	5%	6%	8%
IT Service Desk	4%	3%	3%
Application Development	19%	25%	25%
Application Support	31%	21%	22%
Governance & Business Management	10%	7%	8%
IT Security*	4%	6%	6%
IT Ops. Mgmt	3%	4%	5%
Ser. Con't / DR	1%	1%	1%

*Some IT Security costs are embedded in Data Center & Network which could not be isolated.

Observations / Implications

- Hydro Ottawa allocated a similar amount of spend to Applications than the peer group average (50% of IT spend vs. 46%). Over the last several years, Hydro Ottawa has taken a cloud-first approach by replacing legacy on-prem solutions with cloud-based solutions with vendors such as Workday and Salesforce. During these periods of transition, Applications costs can trend higher, however Hydro Ottawa has managed the transition in a cost-effective manner.
- Hydro Ottawa allocated 43% more IT spending to Governance & Business Management than the peer group average (10% vs. 7%). This spend includes Enterprise Architecture & Business Relationship Management which are important in managing relations with the business. Hydro Ottawa reported that it has transitioned from a “Service” model to a business-centric “Partnership” model.
- IT domains with materially lower spend allocation than the peer group average include IT Security (-33%) and Data Center (-27%)
- Network, Workplace Services, IT Service Desk, IT Operations Management and Service Continuity / Disaster Recovery spend allocations are comparable to the peer group.

Description	• This information is often leveraged in tandem with IT resource planning exercises, wherein resource allocations can be viewed in terms of IT infrastructure versus applications versus IT overhead. • While this measure is helpful in identifying relative volumes of IT resource consumption by IT functional area, as compared to Peers, it does not aid in identifying whether resources are being leveraged in a cost-effective or productive manner.
Definition	Allocated IT Spending among the different functional areas

From a real dollar perspective, Hydro Ottawa's "Run" spend is materially lower than Peers, which is offset by a higher level of investment in Growth / Transformation

IT Spend per $100 of Operating Expense

Enterprise View	IT Spend as % of Operating Expense		IT Spend per $100 of Operating Expense		
	Hydro Ottawa	Peer Avg	Hydro Ottawa	Peer Avg	Variance
	2.80%	3.14%	$ 2.80	$ 3.14	($0.34)

Investment View	Run / Change Distribution		Run / Change per $100 of Operating Expense		
	Hydro Ottawa	Peer Avg	Hydro Ottawa	Peer Avg	Variance
Run	48%	74%	$ 1.34	$ 2.32	($0.98)
Grow / Transform	52%	26%	$ 1.46	$ 0.82	$0.64
Total	**100%**	**100%**	**$ 2.80**	**$ 3.14**	**($0.34)**

Technical View	IT Functional Area Distribution		IT Functional Area Spend per $100 of Operating Expense		
	Hydro Ottawa	Peer Avg	Hydro Ottawa	Peer Avg	Variance
Data Center	11%	15%	$ 0.31	$ 0.47	($0.16)
Voice and Data Network	12%	12%	$ 0.34	$ 0.38	($0.04)
Workplace Services	5%	6%	$ 0.14	$ 0.19	($0.05)
IT Service Desk	4%	3%	$ 0.11	$ 0.09	$0.02
Application Development	19%	25%	$ 0.53	$ 0.79	($0.25)
Application Support	31%	21%	$ 0.87	$ 0.66	$0.21
Governance & Business Mgmt.	10%	7%	$ 0.28	$ 0.22	$0.06
IT Security	4%	6%	$ 0.11	$ 0.19	($0.08)
IT Ops Mgmt.	3%	4%	$ 0.08	$ 0.13	($0.04)
Service Con't. / DR	1%	1%	$ 0.03	$ 0.03	($0.00)
Total	**100%**	**100%**	**$ 2.80**	**$ 3.14**	**($0.34)**

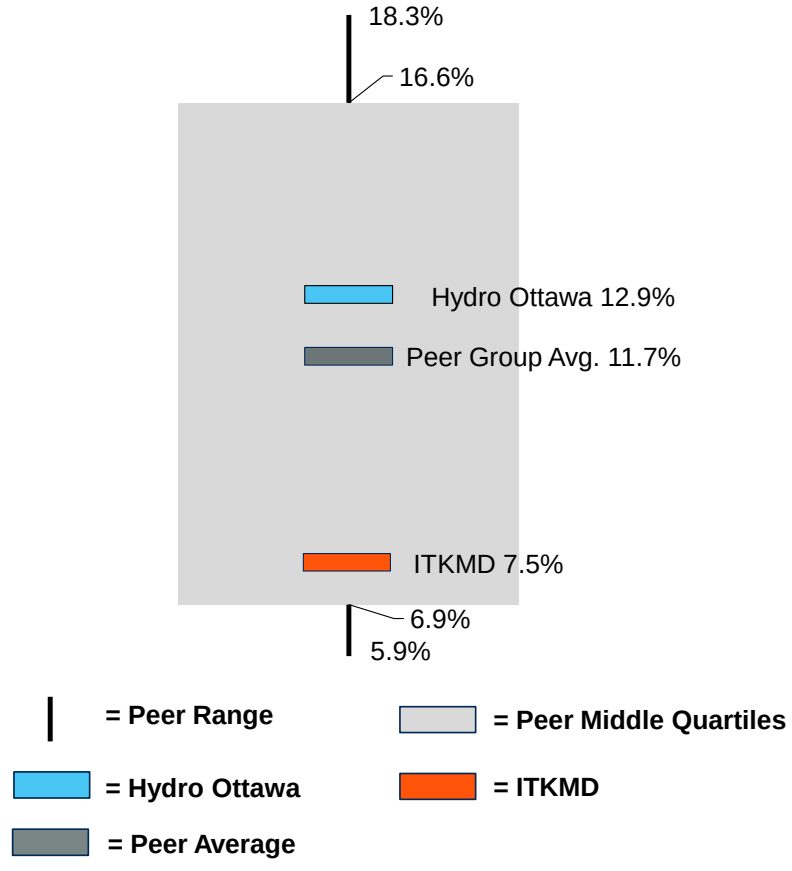
From a real dollar perspective "Run" spending is materially lower than peer group levels

Application Support and Governance & Business Management and IT Service Desk have higher real dollar spending that the peer group average.

3.1
IT Staffing

Gartner®

IT FTEs as a Percentage of Total Employees



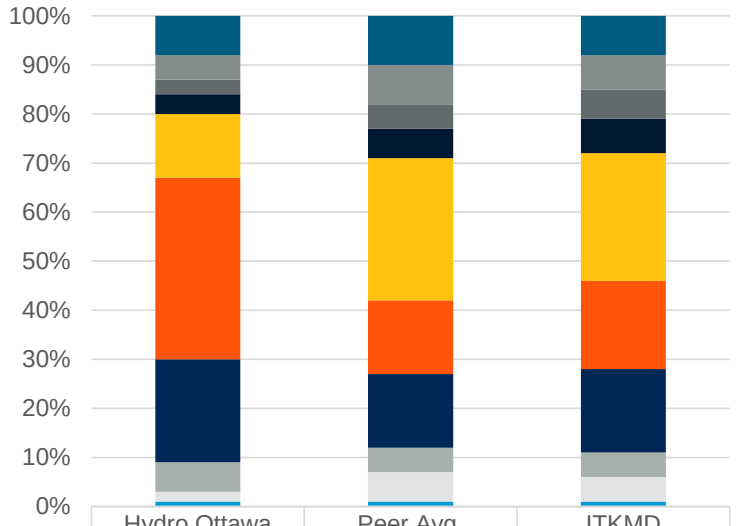
Observations / Implications

- Hydro Ottawa's level of IT staffing is slightly higher than the peer group average, with IT FTEs as a % of Total Employees at 12.9% compared with 11.7%, this is largely the result of Hydro Ottawa's lower number of employees than the peer group average (641 versus 1,096).
- Given Hydro Ottawa's use of External Services is slightly lower than the peer group's, this would suggest the overall IT workforce has higher levels of productivity / efficiency.

Description	• The percentage of IT FTEs in the organization compared to the total number of employees is a key measure of how critical IT support is to the business. This measure can be heavily influenced, however, by the level of outsourcing an organization may have. • Organizations with high levels of manageability and automation should require fewer operations staff. Manual processes and lack of standards will increase the number of IT FTEs needed.	
Definition	IT FTEs includes in-house and contractor FTEs, does not include managed services adjusted FTEs. Organization Employees includes employees, exclusive on Contractors.	
Calculation	IT FTEs / Organization Employees	**Hydro Ottawa: 83 / 641**

Gartner

IT FTEs Distribution by Area



	Hydro Ottawa	Peer Avg.	ITKMD
Data Center	8%	10%	8%
Network	5%	8%	7%
Workplace Services	3%	5%	6%
IT Service Desk	4%	6%	7%
Application Development	13%	29%	26%
Application Support	37%	15%	18%
Governance & Business Management	21%	15%	17%
IT Security	6%	5%	5%
IT Ops. Mgmt	2%	6%	5%
Ser. Con't / DR	1%	1%	1%

Observations / Implications

- Hydro Ottawa's IT FTE allocations are materially higher than the peer group average for Application Support (+146%) and Governance & Business Management (+40%)
- Hydro Ottawa's IT FTE allocation to Application Development is significantly less than the peer group average (-55%), largely because most development activities are outsourced.
- Infrastructure functions (i.e., Data Center, Network, IT Operations Management) have lower IT FTE allocations than the peer group average.

Description	• By viewing human resources (IT FTEs) within the context of the total portfolio, organizations are able to identify which environment is the most labour- intensive as a % of the IT labour pool. Typically, application activities (development and support) demand the most resources from both cost and staffing perspectives. The degree to which an organization outsources should be considered alongside such staffing metrics.
Definition	Distributes In House and Contractor IT FTEs among the different functional areas

Overall IT staffing levels are comparable to peers, however, allocation to Applications Support and Applications Development vary greatly

IT FTEs per 100 Total Employees

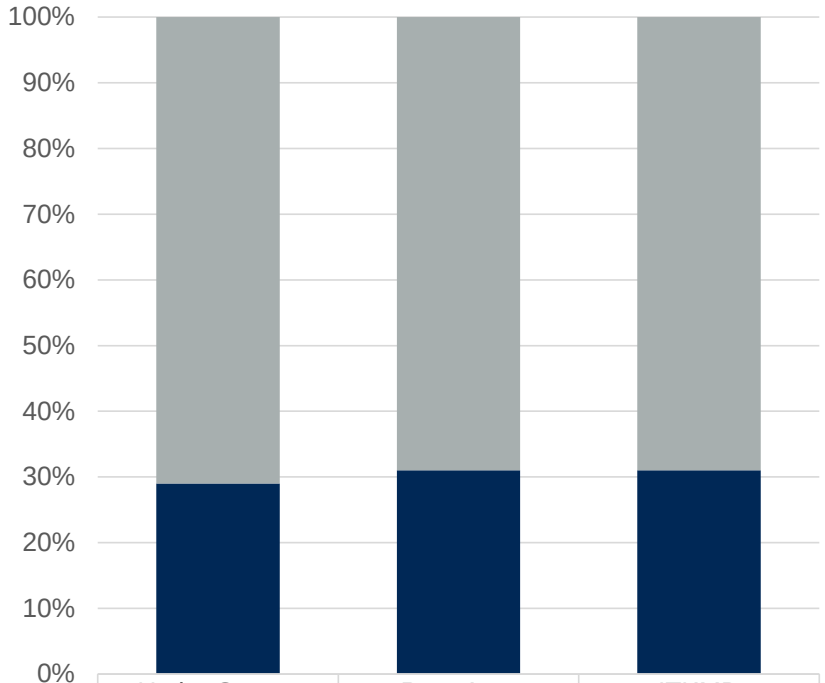
Enterprise View	IT FTEs as % of Total Ees. (incl. Partners)		IT FTEs Per 100 Employees (incl. Partners)		
	Hydro Ottawa	Peer Avg	Hydro Ottawa	Peer Avg	Variance
	12.9%	11.7%	12.90	11.70	1.20

Technical View	IT Functional Area Distribution		IT FTEs Per 100 Employees (incl. Partners)		
	Hydro Ottawa	Peer Avg	Hydro Ottawa	Peer Avg	Variance
Data Center	8%	10%	1.03	1.17	(0.14)
Voice and Data Network	5%	8%	0.65	0.94	(0.29)
Workplace Services	3%	5%	0.39	0.59	(0.20)
IT Service Desk	4%	6%	0.52	0.70	(0.19)
Application Development	13%	29%	1.68	3.39	(1.72)
Application Support	37%	15%	4.77	1.76	3.02
Governance & Business Mgmt.	21%	15%	2.71	1.76	0.95
IT Security	6%	5%	0.77	0.59	0.19
IT Ops Mgmt.	2%	6%	0.26	0.70	(0.44)
Service Con't. / DR	1%	1%	0.13	0.12	0.01
Total	**100%**	**100%**	**12.90**	**11.70**	**1.20**

The real number of Application Development FTEs is significantly lower than peers, as most of this activity is outsourced

The real number of Application Support & Governance and Business Management FTEs are materially higher than the peer group

IT FTEs Distribution by Inhouse and Contractor



	Hydro Ottawa	Peer Avg.	ITKMD
Inhouse	71%	69%	69%
Contractors	29%	31%	31%

Observations / Implications

- The mix of Inhouse and Contract IT FTEs at Hydro Ottawa is comparable to the peer group average (29% of IT FTEs versus 31%)
- Leveraging contractors for specialized skills and/or staff augmentation can be an alternative to hiring full-time employees, but it generally costs more and comes with some risk (i.e. sense of team, commitment to organization, knowledge retention, etc.)

Description	• The distribution of IT FTEs (insourced versus contractor) provides a view of the IT staffing strategy. • IT Contract labour or Contractor usage can be an effective approach to maintaining flexibility and agility when business conditions are changing. However, keeping Contractors for extended periods can be costly and limit process standardization.
Definition	Distribution of Contractor FTEs and In House FTEs

4.0
IT Spending & Staffing Benchmarking Definitions

Gartner®

IT Budget Benchmark Methodology — Key Definitions

- The IT Budget Assessment follows the Gartner Benchmarking chart of accounts. In order to match the Gartner Benchmark chart of accounts, the data presented in the benchmark will not completely align with the official Information Technology budget or organization. For example, the Gartner Benchmark chart of accounts has historically excluded operational technology.
- IT Budget Definition
  - The total spend for a twelve month budget period for information technology to support the enterprise. IT spend can come from anywhere in the enterprise that incurs IT costs, and it is not limited to the IT organization. It is calculated on an annualized “cash out” basis and therefore contains capital budget, and operational expenses. Gartner definitions for IT spend include all IT services, for example:
    - Hardware, software, personnel (including travel and benefits and training), contractors and consultants, outsourcing, disaster recovery, occupancy, data and voice communications/transmission, associated with supporting information technology within the enterprise.
    - Costs for the facilities being used by the staff supporting the enterprise. Some examples include office space, furniture, electricity, maintenance, property taxes, security, and office supplies. Occupancy costs for space dedicated to IT functions such as the data center and IT service desk are also included.
    - The data center (servers, storage etc), Hydro Ottawa devices (desktops, laptops, tablets, thin Hydro Ottawas, handhelds), voice and data networks (including but not limited to voice and data transmission, fixed and mobile telephony, Internet access services), IT service desk, application development and maintenance. IT Support functions such as the office of the CIO, supervisory management, finance and administrative costs, such as purchasing, asset management, process management, and marketing of IT services.

IT Domain Definitions (1 of 3)

Enterprise Computing (Data Center)

- *Compute:* includes the provisioning of the full life cycle management of processing/hosting services on both mainframe and midrange (UNIX, Windows, Linux, iSeries etc.) platforms including acquisition, deployment, maintenance, change management and disposal.
- *Storage:* includes the provisioning of the full life cycle management of storage services utilizing online, near-line and offline technologies including acquisition, deployment, maintenance, change management and disposal.
- *Facilities/Hosting:* includes the full life cycle management of the physical data center premises, and other facilities and services associated with the premises such as furniture, power supply, heat management, climatization services, access security, floor space, office space, design and consulting.
- *Database:* includes the full life cycle management of relational, non-relational and pre-relational databases including the tools for monitoring and diagnosing problems with databases, analyzing and improving the performance of databases, and routine administration of databases, including configuration changes.
- *Middleware:* is the software "glue" that helps programs and databases (which may be on different computers) work together. Its most basic function is to enable communication between different pieces of software. Integration middleware is software that enables independently designed applications, software components or services to work together, by supporting data consistency, composite application and multistep process styles of integration. It includes multi-enterprise (B2B) integration capabilities and internal integration, as well as those products that enable existing applications to become part of a new multistep process. Platform middleware is system software that provides the runtime hosting environment (a container) for application program logic. It uses embedded or external communications middleware to help programs interact with other programs. It also provides resource management services for hosting application program logic at runtime.

Network

- Network (data and voice) is comprised of: Local-Area Network Service (this subservice provides network access within the office premises), Wide-Area Network Service (this subservice helps in the management and supply of inter-site connections and network infrastructure), Remote Access Service (this subservice helps to connect the internal network from a remote location with broadband or phone line access using a security token), Internet Connectivity Service (this subservice provides access to the internet) and Intranet Connectivity Service (this subservice helps in the provision of the global network provided by third parties. This also includes management of network optimization devices).

IT Domain Definitions (2 of 3)

End-User Computing

- End-User Computing includes provisioning of the full life cycle management of desktop, laptop, tablet, thin Hydro Ottawa, handheld and peripheral assets including acquisition, deployment, maintenance, change management and disposal.

IT Service Desk

- An IT Service Desk is defined as any single location that evenly distributes the receipt and/or placement of technical support calls or contacts to a predetermined group of support staff. The IT service desk assessment examines IT efficiency and effectiveness with respect to the provisioning of remote Tier 0/Tier 1 support provided to end users by the technical support centers (e.g., network, data center, PC and consolidated).
- Because IT service desks may be organized differently across enterprises, you may be required to capture some information that is beyond your specific budget lines to ensure consistent comparisons. Examples include telecommunications equipment used specifically by the IT service desk, transmission expenses attributable to the inbound support calls and remote user support resources that may physically reside in other support groups (e.g. network operations or applications support).

Applications

- *Development*
  - New code for a new application
  - Functional enhancements to current code that take more than two person-weeks or typically add greater than eight function points (see notes below)

- *Support*
  - Programming maintenance of currently operational computer applications. This will include some enhancements to these applications as well.
  - Bug fixes of any size or duration
  - Maintenance of hard-coded data or tables (including field size changes) embedded within the programs (any size or duration)
  - Functional enhancements to current code that take less than two person-weeks and typically add fewer than eight function points
  - Any project that produces no new business functionality for the user

IT Domain Definitions (3 of 3)

Governance & Service Management

- Identifies service-optimized IT organizations which are growth enablers and a source of both operational and strategic differentiation. Here, the IT organizations constructively and proactively engage with the business to improve business operations to enrich enterprise performance.
  - In order to drive business value, these IT organizations themselves run like a business, bringing out front-office capabilities. IT demonstrates financial discipline, transparency, and delivery of business value by managing an integrated view of technology cost and performance against defined business outcomes, which are formally captured in a strategic service portfolio. These IT organizations exhibit the following key characteristics of an implicit business-oriented consumer/provider relationship:
  - Understand customer's needs
  - Manage service and solution life cycle
  - Deliver solutions and services to customers
  - Governs internal IT operations and architecture to ensure strategic success

IT Operations Management

- Provides on-site and/or remote IT Operations monitoring to gain insight into the historical, current and future availability and performance of IT systems, networks and applications, while also performing root cause analysis. Monitoring typically is performed in four categories: IT Infrastructure Monitoring (ITIM), Applications Performance Monitoring (APM), Artificial Intelligence for IT Operations (AIOps) and Network Performance Monitoring and Diagnostics (NPMD).

IT Security

- The discipline of designing, implementing and maturing security practices to protect critical business processes and IT assets across the enterprise. It covers:
  - Developing and maintaining effective program governance
  - Communicating and engaging successfully with all stakeholders
  - Defining a vision promoting desired security, risk management and business outcomes
  - Defining, communicating and enforcing security policies across the organization
  - Planning budgets and resourcing, including talent management and professional services
  - Assessing and improving program maturity and performance

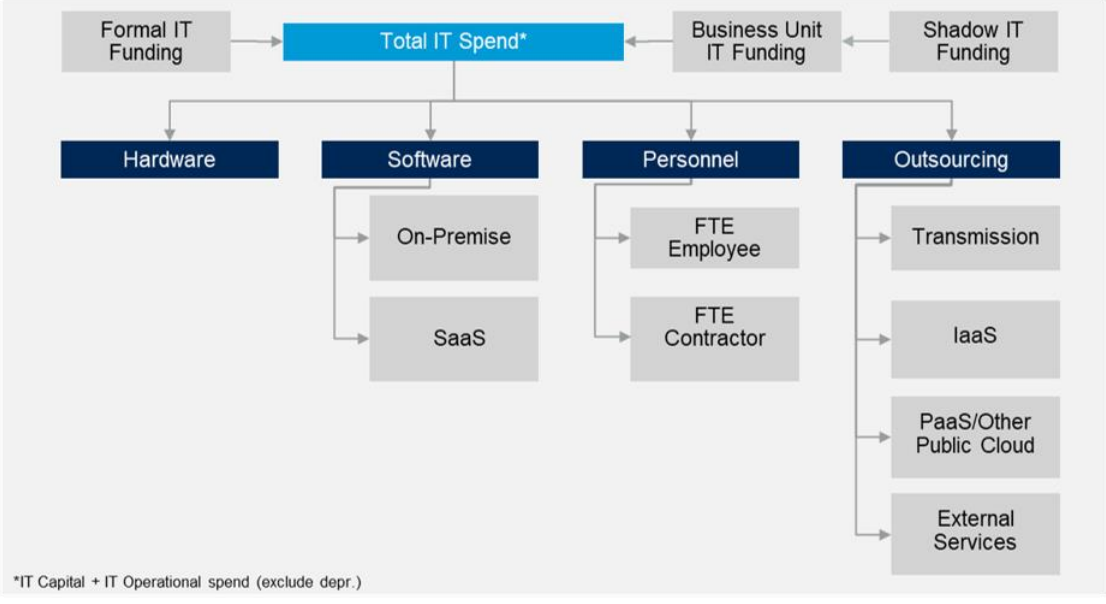
IT Service Continuity/Disaster Recovery

- The use of alternative network circuits to re-establish communications channels if the primary channels are disconnected or malfunctioning.
- The methods and procedures for returning a data center to full operation after a catastrophic interruption (e.g., including recovery of lost data).

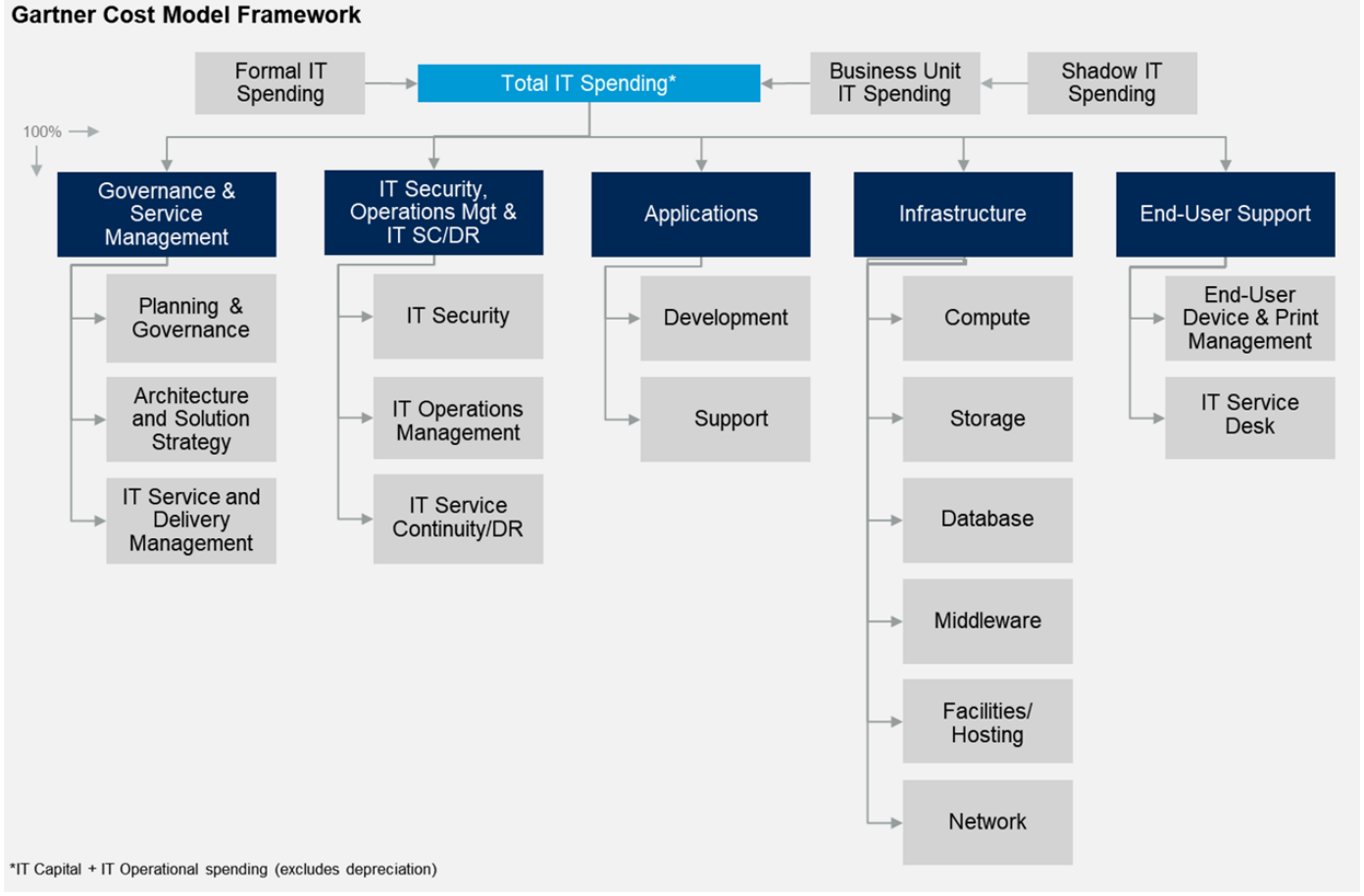
Consensus Model Overview

Total IT Spending: Asset-Based Cost Management View

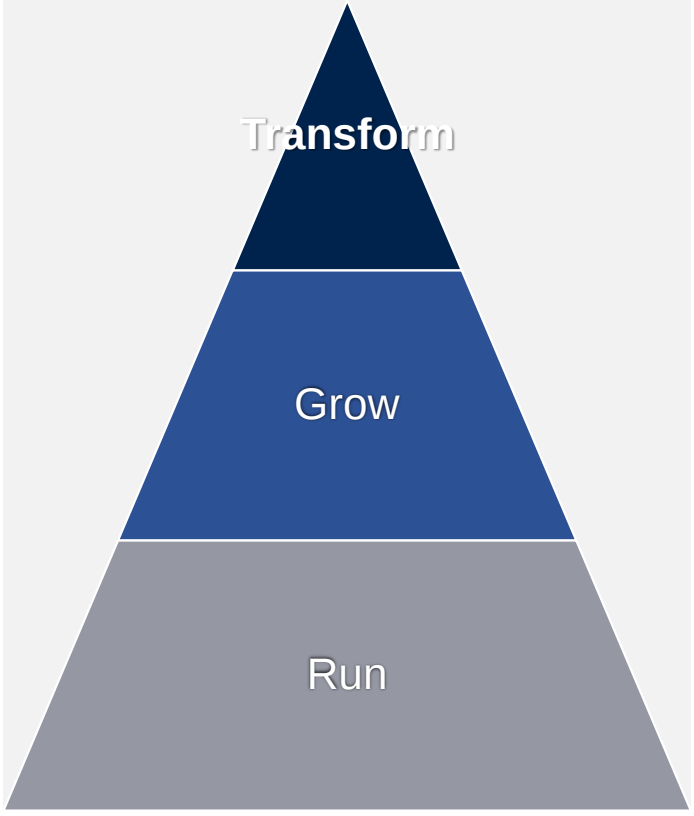
IT Spending includes (From a resource or accounting perspective): Hardware, software, personnel for IT FTEs including IT contractors, network transmission, outsourced IT services e.g., consulting, system integration, infrastructure etc.), public cloud services, occupancy and utilities spending associated data centers, taxes other than value added taxes where it is recovered and refunded to the organization.



IT Total IT Spending: IT Functional Cost Management View



Run, Grow, Transform Describes IT's role



Is it Revolutionary?

For Everyone?
There is potential for new markets or industries, or displacement or elimination of existing industries.

For the Hydro Ottawa?
There is potential to move the Hydro Ottawa's business into entirely new markets or

YES → **Transform the Business**

Does it Make Money?

The situation is about enhancing, extending or differentiating existing business capabilities related to products, services, or markets.

YES → **Grow the Business**

Does it Keep the Lights on?

The situation is about supporting or improving essential, non-differentiated business functions that do not directly produce revenue.

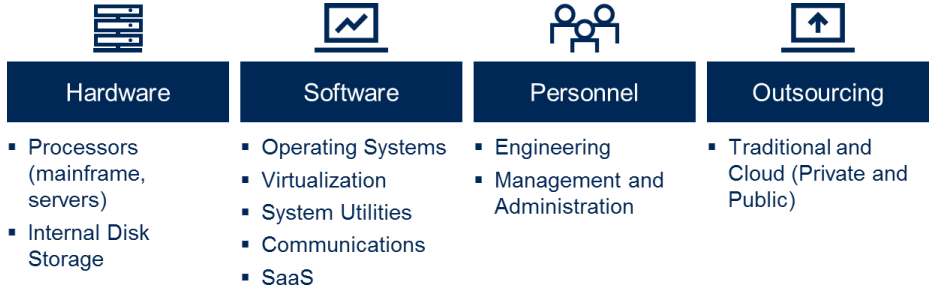
YES → **Run the Business**

Gartner

Data Center

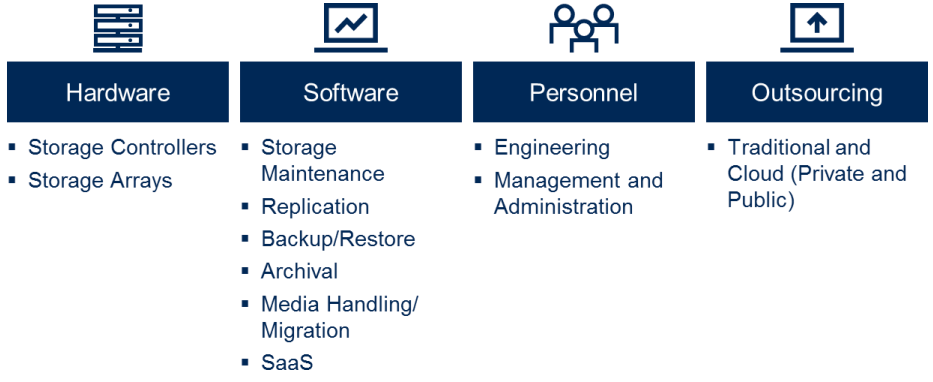
Compute

- Compute includes the provisioning of the full life cycle management of processing/hosting services on both mainframe and midrange (UNIX, Windows, Linux, iSeries etc.) platforms and racks including acquisition, deployment, maintenance, change management and disposal.
- Expenses, staffing and workload related to data center facilities management are included in the Facilities/Hosting service.
- Annual Compute costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of hardware, software and outsourcing, in addition to personnel costs.



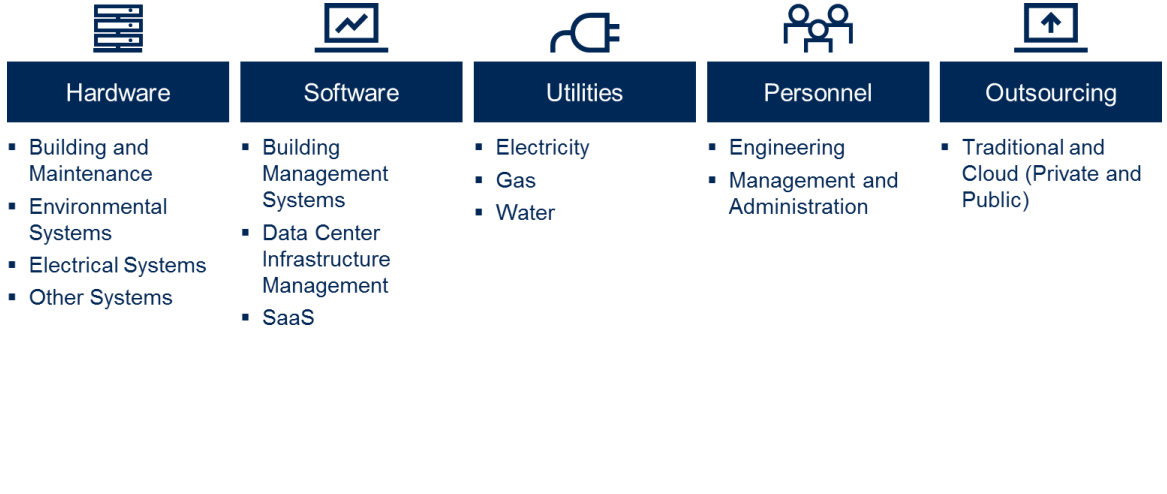
Storage

- Storage includes the provisioning of the full life cycle management of storage services utilizing online, near-line and offline technologies including acquisition, deployment, maintenance, change management and disposal.
- Annual Storage costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of hardware, software and outsourcing, in addition to personnel costs.



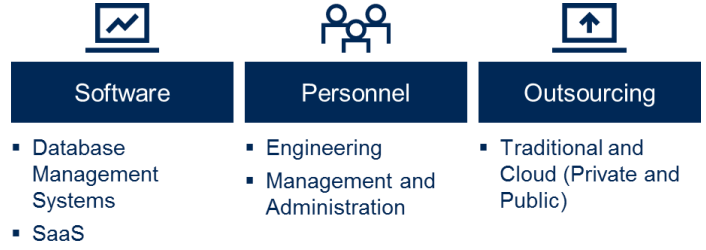
Facilities/Hosting

- Facilities/Hosting includes the full life cycle management of the physical data center premises, and other facilities and services associated with the premises such as furniture, power supply, heat management, climatization services, access security, floor space, office space, design and consulting.
- Annual Facilities costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of hardware, software, utilities and outsourcing, in addition to personnel costs.



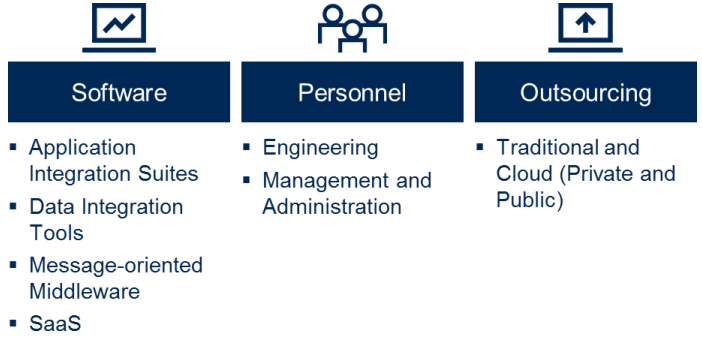
Database

- Database includes the full life cycle management of relational, non-relational and pre-relational databases including the tools for monitoring and diagnosing problems with databases, analyzing and improving the performance of databases, and routine administration of databases, including configuration changes.
- Annual Database costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of software and outsourcing, in addition to personnel costs.



Middleware

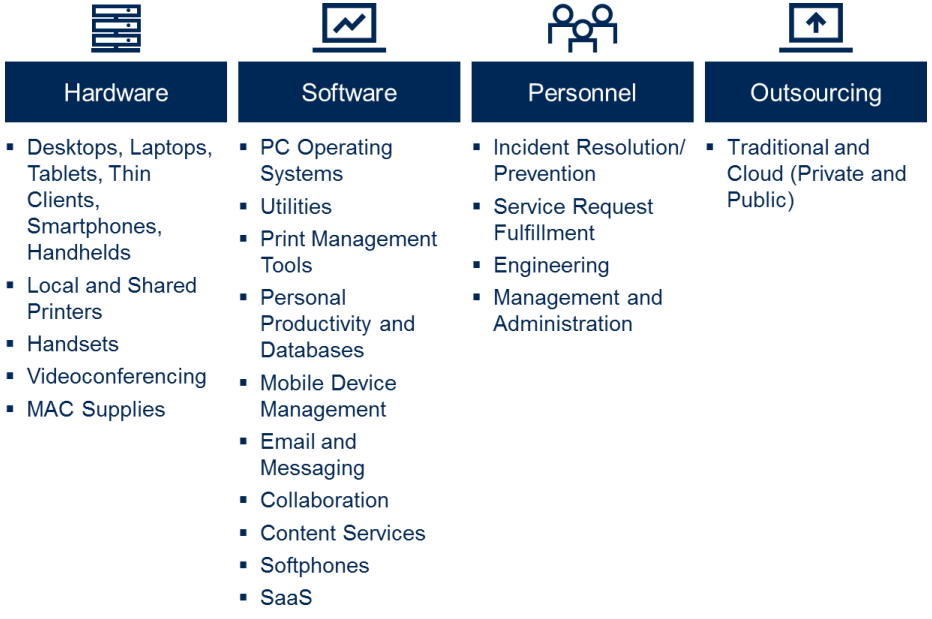
- Middleware is the software “glue” that helps programs and databases (which may be on different computers) work together. Its most basic function is to enable communication between different pieces of software. This includes Integration middleware and Platform middleware.
- Integration middleware is software that enables independently designed applications, software components or services to work together, by supporting data consistency, composite application and multistep process styles of integration. It includes multi-enterprise (B2B) integration capabilities and internal integration, as well as those products that enable existing applications to become part of a new multistep process.
- Platform middleware is system software that provides the runtime hosting environment (a container) for application program logic. It uses embedded or external communications middleware to help programs interact with other programs. It also provides resource management services for hosting application program logic at runtime.
- Annual Middleware costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of software and outsourcing, in addition to personnel costs.



End-User Support

End-User Device and Print Management

- End-User Device & Print Management includes provisioning of the full life cycle management of personal computing devices, peripheral assets and fixed telephones including acquisition, deployment, maintenance, change management and disposal.
- Annual End-User Device & Print Management costs include the annual capital and operational expense, installation and taxes, as appropriate, for all of hardware, software and outsourcing, in addition to personnel costs.



End-User Applications

This includes the annual license and maintenance costs, as well as capital costs associated with new purchases and upgrades, for all software specified below:

- Personal Productivity
- Email/Messaging
- Unified Communications & Collaboration
- Mobility Management
- Content Services
- Softphones
- Software as a service (SaaS)
- Other Personal Applications

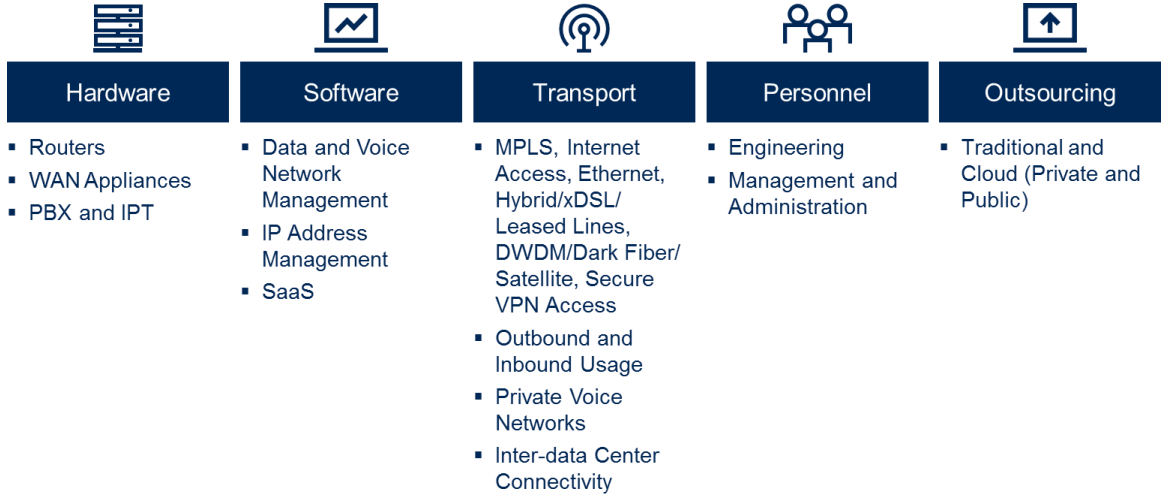
IT Service Desk

- An IT Service Desk is defined as any single location that evenly distributes the receipt and/or placement of technical support calls or contacts to a predetermined group of support staff. The IT Service Desk consensus model examines IT efficiency and effectiveness with respect to the provisioning of remote Tier 0/Tier 1 support provided to end-users of IT services.
- Web-based self-help / self-healing intranet knowledgebase (T0) enables users to resolve their own problems, submit request for service, reset passwords etc. Fixed IT Service Desk (T1/T2) functions include call-taking agents and supervisors, with potentially tiered structure for passing contacts to more technical root cause investigators within the IT Service Desk team. Function handles all contacts from authorized end-users including calls, emails, web-based queries and requests and chat support for Tier 0 users.
- Annual IT Service Desk costs include the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of hardware, software and outsourcing, in addition to personnel costs.

Network

Wide-Area Network (Data & Voice)

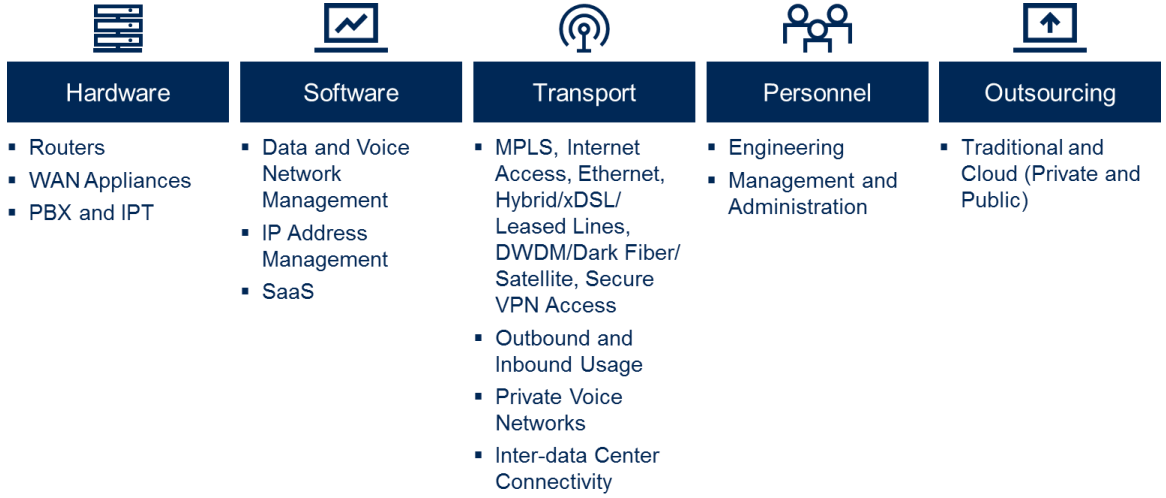
- Wide-Area Network Service: This subservice helps in the management and supply of inter-site connections and network infrastructure.
- Remote Access Service: This subservice helps to connect the internal network from a remote location with broadband or phone line access using a security token.
- Internet Connectivity Service: This subservice provides access to the internet.
- Intranet Connectivity Service: This subservice helps in the provision of the global network provided by third parties. This also includes management of network optimization devices.
- Annual Network cost includes the annual capital and operational expense, maintenance, installation and taxes, as appropriate, for all of hardware, software, transmission and outsourcing, in addition to personnel costs.



Transport

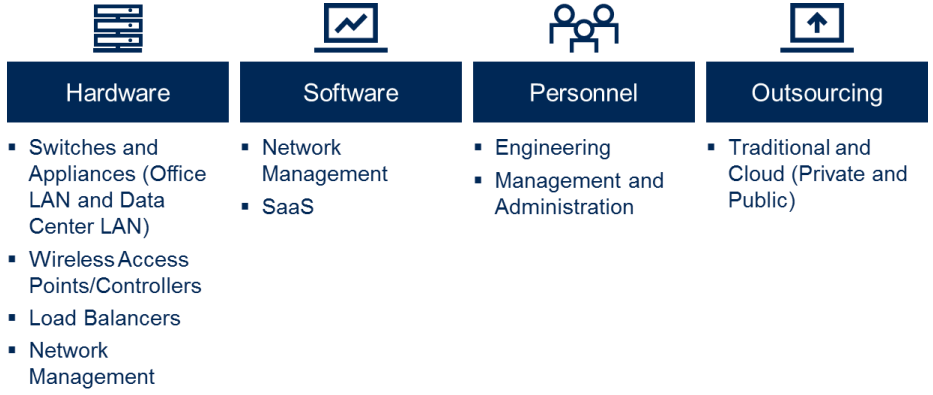
Includes TO:

- Connectivity Bandwidth
- Voice Circuits
- DIDs
- Inbound 0800/0300
- Outbound
- Mobility Plans
- Private Network Connectivity



Local-Area Data Network

- Local-Area Network Service: This subservice provides network access within the office premises.



Applications

Application Development & Support

Application Development and Support is comprised of:

- Software
  - Business Functionality Software Traditional Licenses, embedded maintenance and SaaS for software including but not limited to enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM), data management and analytics, and digital and externally focused applications.
  - Development and Support Software Traditional Licenses, embedded maintenance and SaaS for software including but not limited to languages/compilers/databases, development/testing tools and IT management software
- Personnel
  - Personnel includes developers, quality assurance and testing, and management and administration.
- Outsourcing
  - Application Development Outsourcing: Any situation in which the full operational responsibility for IT services is completely handed over to an external service provider.
  - Application Support Outsourcing — Stand-alone maintenance agreements, application management services)

Application Development & Support

- Application Development and Support examines the efficiency of the IS programming groups that are creating or implementing new applications, adding new functionality to existing applications and providing programming support for these applications after they are installed and running in the production environment.
- Application Development
  - New code for a new application
  - Functional enhancements to current code that take more than two person-weeks
- Application Support
  - Support refers to the programming maintenance of currently operational computer applications.
  - Bug fixes of any size or duration
  - Maintenance of hard-coded data or tables (including field size changes) embedded within the programs (any size or duration)
  - Functional enhancements to current code that take less than two person-weeks
  - Any project that produces no new business functionality for the user.

Governance & Service Management

Governance & Service Management

- Governance & Service Management identifies service-optimized IT organizations which are growth enablers and a source of both operational and strategic differentiation. Here, the IT organizations constructively and proactively engage with the business to improve business operations to enrich enterprise performance.
- In order to drive business value, these IT organizations themselves run like a business, bringing out front-office capabilities. IT demonstrates financial discipline, transparency, and delivery of business value by managing an integrated view of technology cost and performance against defined business outcomes, which are formally captured in a strategic service portfolio. These IT organizations exhibit the following key characteristics of an implicit business-oriented consumer/provider relationship:
  - Understand customer's needs
  - Manage service and solution life cycle
  - Deliver solutions and services to customers
  - Governs internal IT operations and architecture to ensure strategic success

Governance & Service Management (1 of 3)

Governance and service management includes planning and governance, architecture and solution strategy, and IT service and delivery management.

- **Planning and Governance**
  - Executive Office & Administration: Office of the CIO, other cross-functional IT executives and their administrative support.
  - However, this excludes those IT managers that fit logically within the other Gartner service areas such as the CISO in IT Security, Data Center Managers, Network Managers, End-User Support Managers or Application Development and Support Managers.
  - Program Management: Orchestrates an active process of managing multiple workstreams or projects that need to meet business expectations according to a consistent methodology and standards, by focusing on tighter integration, proactive communication, control over resources and priorities.
  - Sourcing: Establishes practices and coordinates multiple suppliers of services (business services as well as IT services) and integrates them to provide a single business-facing IT organization. This function acts as the general contractor, and will assume strategic sourcing and vendor management responsibilities, including contract management, procurement policy and procedure administration, negotiation and performance management, including reporting.
  - Financial Management: Establishes the transparency of the relationship among cost, quality and business value so that it can be consistently measured and managed. This function is key to running IT like a business ensuring an understanding of IT delivery cost and competitiveness to external market offerings, competitive pricing of offerings, visibility to process and labor costs to price products and services, and communicates the value of IT.

Governance & Service Management (2 of 3)

Governance and service management includes planning and governance, architecture and solution strategy, and IT service and delivery management.

- **Architecture and Solution Strategy**
  - Enterprise Architecture & Design: This function develops an overall vision for technology capabilities and requirements that is consistent with business needs and constraints while advancing the agenda of innovation.
  - Business Analysis: A key function to the IT business value proposition of the IT organization because of their ability to translate business ideas to implementable requirements. To optimize the effectiveness of this group, it is important to align them into a centralized structure with established standards, processes, and tools that fosters cross-unit knowledge and ideas.
  - This function participates in strategic activities such as conducting research, assessing viable innovation opportunities, collecting necessary information for prioritization decisions, managing business expectations during execution, and measuring business benefit after deployment.
  - Research and Development: This team performs activities in connection with technology innovation that align with business needs. Working very closely with business teams, other members of the Architecture and Solution Strategy function, as well as the Program Management function, the R&D function is tasked to focus on applied research and development of working prototypes for targeted priorities.
  - R&D is not often intended to yield immediate profit, and generally carries greater risk and an uncertain return on investment but aligned to enterprise strategy.

Governance & Service Management (3 of 3)

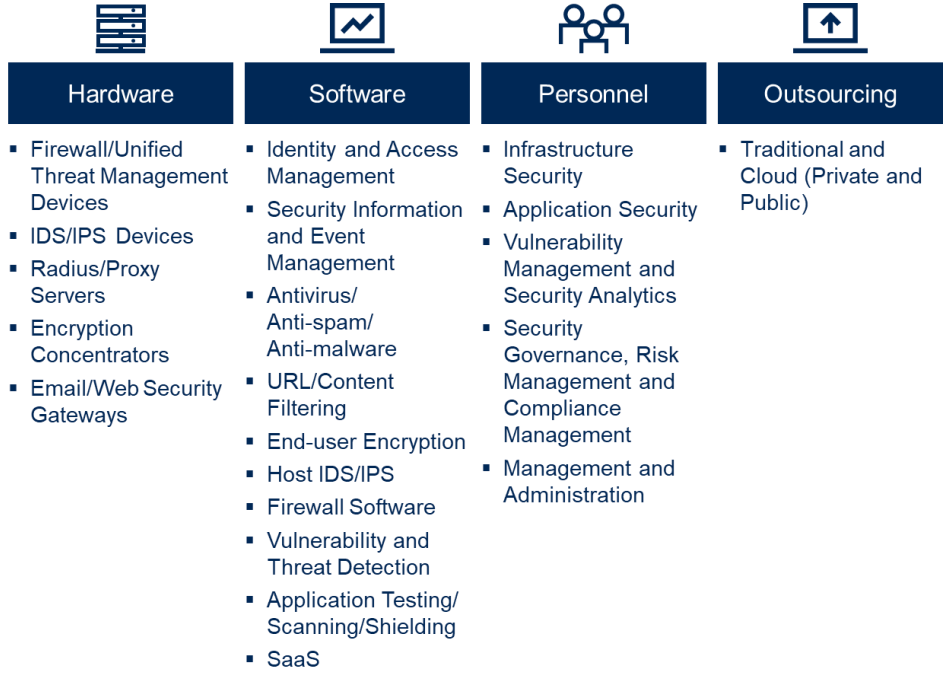
Governance and service management includes planning and governance, architecture and solution strategy, and IT service and delivery management.

- **IT Service and Delivery Management**
  - Business Relationship Management: This is a senior team within the IT organization that has extensive business and industry experience. The business relationship managers are embedded in the business, typically aligned to specific business units or geographical regions and locations and expected to be the business optimization and innovation champions for their particular responsibilities, whether BU or location. They maintain a close, trusted relationship with the business to understand and provide input into strategy, plans and needs. They advise on innovation and technology enablement opportunities. In addition, they facilitate matching of business needs to product/service offerings and are catalysts in helping IT evolve its offerings. They work closely with the Planning & Governance office and the Architecture office on direction and planning. They engage the customers throughout the life cycle — from marketing of services/products, through demand and planning process, to delivery and support of product/service. In traditional business terms, they are analogous to an account executive function.
  - Product/Service Management: While Governance and Architecture functions set the overall direction, the execution of plans, products and services is part of the IT Service and Delivery Management function. This role must ensure that products and services are what the customers actually want and are willing to pay for. This group is responsible for determining the portfolio of products and services that IT will offer and at what price and quality levels to meet the needs of its market (for example, the enterprise). It owns the service portfolio, pricing (for chargebacks), establishes service-level agreements (SLAs), creates and manages the transactional catalog and generally conducts any benchmarking around IT organizational competitive-ness, efficiency and performance that might drive continuous improvement or outsourcing decisions.
  - Performance/Process Management: As a service broker and a business, IT needs to manage both its own performance and that of its suppliers in delivering needed services/products. This cross-organizational function is key to helping IT optimize change adoption, realize planned for benefits, and help the enterprise get the best possible return on its IT investment. Key responsibilities include improving visibility into service performance and more accurately measuring progress toward defined objectives and ensure compliance to SLAs through continuous assessment, evaluation, and refinement of core IT service processes.
  - Delivery Management: Delivery management in this context is the high level, executive function which operates cross-functionally to provide functional, technical and process leadership. This group is charged with leading the delivery effort to ensure solutions meet customer time frame, quality and outcome expectations. They collaborate with the Enterprise Architecture office to mitigate cross-platform technical and delivery risks before they become issues while preventing errors, omissions, defects and costly rework.

IT Security, IT SC/DR, IT Operations Management

IT Security

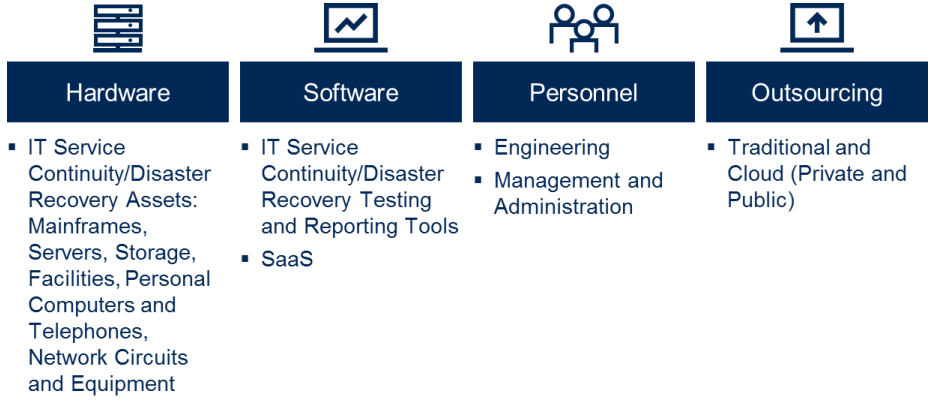
- IT Security is the discipline of designing, implementing and maturing security practices to protect critical business processes and IT assets across the enterprise. It covers:
  - Developing and maintaining effective program governance
  - Communicating and engaging successfully with all stakeholders
  - Defining a vision promoting desired security, risk management and business outcomes
  - Defining, communicating and enforcing security policies across the organization
  - Planning budgets and resourcing, including talent management and professional services
  - Assessing and improving program maturity and performance



IT Service Continuity & Disaster Recovery (IT SC/DR)

IT Service Continuity/Disaster Recovery is defined as:

- The use of alternative network circuits to re-establish communications channels if the primary channels are disconnected or malfunctioning.
- The methods and procedures for returning a data center to full operation after a catastrophic interruption (e.g., including recovery of lost data).
- Note: For assets to be considered as in-scope for IT Service Continuity/Disaster Recovery (IT SC/DR), they are required to be in an active/passive state whereby production failover occurs to idle standby systems/location.



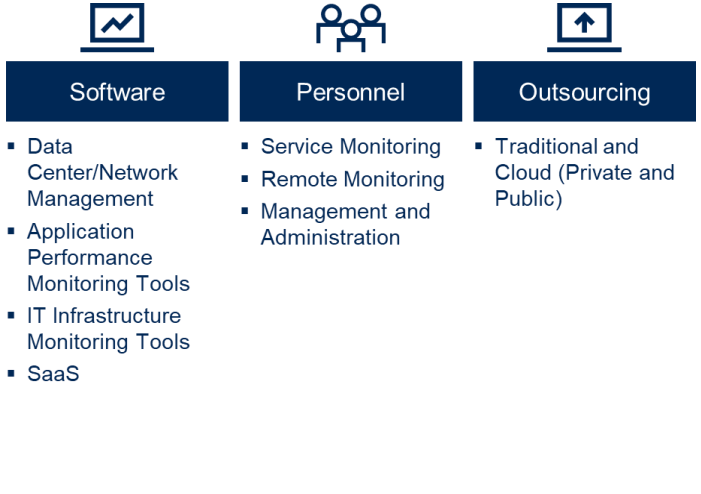
IT Service Continuity & Disaster Recovery (IT SC/DR)

IT Service Continuity/Disaster Recovery includes:

- Engineering
  - Functions include producing recovery plans for data center, workplace and network services designed to ensure that, following any major incident or sudden, unplanned calamitous event causing or potentially causing disruption of the service, IT services are provided to an agreed level within an agreed schedule.
  - It should be recognized also that IT SC/DR is only one component of Business Continuity Planning (BCP). The objective is to assist the business and BCP to minimize the disruption of essential business processes during and following a major incident. The process includes such activities as business impact analysis, risk analysis and risk management exercises, maintaining disaster recovery documentation, conducting periodic tests and audits, and negotiating contingency site arrangements. However, only include costs/FTEs related to IT personnel.
  - While there are other functions around disaster recovery/business continuity such as developing manual processes, and ensuring business unit personnel are able to function, they are not within the scope of this definition.

IT Operations Management

- IT Operations Management provides on-site and/or remote IT Operations monitoring to gain insight into the historical, current and future availability and performance of IT systems, networks and applications, while also performing root cause analysis. Monitoring typically is performed in four categories: IT Infrastructure Monitoring (ITIM), Applications Performance Monitoring (APM), Artificial Intelligence for IT Operations (AIOps) and Network Performance Monitoring and Diagnostics (NPMD).



IT Operations Management

Service Monitoring

- On-site operations monitoring and management including such tasks as system start/stops, monitoring system jobs, responding to console messages, detecting and recording of data center and network incidents and correction of production failures.
- Production control duties which maintain the integrity of the production environment, including turnover of applications from test into production after the systems have been developed and tested, ensuring that systems to be placed in the production environment meet certain standards, providing job procedural documentation such as scheduling requirements and rerun procedures, establishing and adjusting the batch job schedule, providing ongoing job monitoring and reviewing the service level of production jobs to improve quality and/or efficiency.
- Capacity management duties which ensure that adequate data center and network capacity is available at all times to meet the requirements of the business by balancing business demand with IT supply.

Remote Monitoring

- This is the same job description as Service Monitoring above but performed by staff in a remote location.

Gartner Consulting Contacts

Adrian Milczarek
Senior Managing Partner
Gartner Consulting
E-Mail: adrian.milczarek@gartner.com

Alexander Smith
Associate Partner
Gartner Consulting
Email: alexander.g.smith@gartner.com

David Jesseau
Senior Director, IT Spend Optimization
Gartner Consulting
Email: david.jesseau@gartner.com

INTERROGATORY RESPONSES TO SCHOOL ENERGY COALITION

1-SEC-22

EVIDENCE REFERENCE:

[Ex.1-3-3, Attachment E] With respect to the Gartner, Enterprise IT Spending & Staffing Benchmark, Final Report:

QUESTION(S):

a. [p.13] Please list the companies included in the Peer Group and ITKMD Utilities.
b. [p.17] How many companies' that are included in the Peer Group and ITKMD Utilities are:
   i. distribution only utilities
   ii. transmission only utilities
   iii. generation only utilities
   iv. distribution and transmission only utilities
   v. other
c. [p.13,17] Please confirm that Hydro Ottawa's revenue includes revenue related to pass- through costs (i.e. commodity, transmission, etc.) in addition to distribution revenue.
d. [p.17] Please revise the table to show IT Spend as a % of Distribution Revenue only.

RESPONSE(S):

a) The custom peer group organizations used for comparative purposes are a subset of Gartner's IT Key Metrics Data (ITKMD). Due to client confidentiality agreements, Gartner cannot release the names of the companies included in the ITKMD – Utilities Industry or custom peer groups.

b) There were 140 organizations included in the 2023 IT Key Metrics data set; it would be a considerable effort to analyze the nature of operations for each. More importantly, the materiality

of the response would be limited as the benchmark analysis emphasizes comparing Hydro Ottawa results with the custom peer group of 9 organizations.

For the 9 organizations in the custom peer group, the distribution is as follows:

i. distribution only utilities = 3
ii. transmission only utilities = 0
iii. generation only utilities = 1
iv. distribution and transmission only utilities = 0
v. generation, transmission and distribution = 4
vi. generation and transmission = 1
vii. other = 0

c) Confirmed.

d) The minimum number of organizations required in a peer group to be statistically relevant is 7. Including distribution only organizations would mean being well below the minimum. Therefore providing IT Spend as a % of Distribution Revenue only would not be meaningful.

Hydro Ottawa Limited

Statement of Income
Year ended December 31, 2023
[in thousands of Canadian dollars]

	2023 $	2022 $
Revenue and other income		
Power recovery revenue [Note 16]	**861,905**	863,545
Distribution revenue [Note 16]	**224,770**	209,841
Government grant income	**4,336**	4,164
Other revenue [Note 16]	**26,933**	26,261
	1,117,944	1,103,811
Expenses		
Purchased power	**878,410**	886,898
Operating costs [Note 17]	**128,873**	118,541
Depreciation [Note 6]	**55,441**	52,845
Amortization [Note 7]	**8,646**	8,516
	1,071,370	1,066,800
Income before the undernoted items	**46,574**	37,011
Financing costs [Note 18]	**31,314**	27,193
Income before income taxes	**15,260**	9,818
Income tax expense [Note 19]	**8,317**	12,379
Net income (loss)	**6,943**	(2,561)
Net movements in regulatory balances, net of tax [Note 5]	**21,855**	35,267
Net income after net movements in regulatory balances	**28,798**	32,706

The accompanying notes are an integral part of these financial statements

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-36

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 1, Attachment 1, pp. 1, 7, 12-13

QUESTION(S):

a) (P. 1) Please provide a single table that provides a breakdown between the software costs that were or will be capitalized and the software costs that were or will be expensed for each year during the 2021-2030 period.

b) (P.1) Please advise whether any of the cloud solutions implemented (or that will be implemented) have resulted in a direct offset to the capital budget. As part of the response, please discuss whether Hydro Ottawa expects that as it expands cloud computing solutions, the IT capital program will be reduced over time.

c) (P. 1) Other than the EAM and CRM cloud solutions, please provide any analysis completed related to other cloud solutions that were considered but are not proposed as part of the application.

d) (P. 7) Please file the “2022 assessment” that highlighted critical gaps impeding efficient asset management if not already filed with the application. If it is on the record, please provide a reference to this assessment.

e) (P. 12) With respect to the 2025 work related to the EAM program, please provide a status update and advise whether the schedule in Table 3 and the associated timing of the costs to be incurred in Table 4 remain accurate.

RESPONSE(S):

a) The cost of capitalized software is provided in Table A, along with the associated maintenance costs for that software, which is an annual expense that is intrinsically linked to the capitalized assets. Table B shows the annual subscription costs for software that is immediately expensed.

Table A - Software Costs Capitalized and Associated Maintenance Costs 2021-2030[1] ($'000s)

	Historical Years			Bridge Years		Test Years				
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capitalized Software	$ 3,039	$ 4,779	$ 6,265	$ 9,679	$ 7,048	$ 9,694	$ 10,588	$ 11,698	$ 8,442	$ 5,737
Non-capitalized Maintenance	$ 7,183	$ 7,349	$ 7,772	$ 8,461	$ 8,695	$ 9,716	$ 10,219	$ 10,749	$ 11,305	$ 11,891

Table B - Software Costs Expensed 2021-2030[2] ($'000s)

	Historical Years			Bridge Years		Test Years				
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Subscription costs[3]	$ 2,754	$ 3,137	$ 4,404	$ 4,447	$ 4,547	$ 10,842	$ 11,403	$ 11,994	$ 12,615	$ 13,269

b) Several cloud-based software solutions have and will offset the capital budget. For example, the cloud-based Google Workspace eliminated the perpetual licenses of the Microsoft Office suite from the capital budget, and the planned cloud contact centre will replace the on-premise IVR solution currently employed.

[1] 2027-2030 Test Years are forecast using the Custom Revenue OM&A Factor discussed in Schedule 1-3-1 Rate Setting Framework.
[2] Ibid
[3] Also includes cloud implementation costs

c) As discussed in the Attachment 1-3-4(B) - Digital Strategy, Hydro Ottawa is shifting as much as practicable to cloud-based solutions and does expect that this will result in a reduction of capital IT investments over time.

d) Hydro Ottawa carefully considered an ERP cloud solution but decided to defer the project. The decision was based on shifting priorities due to the Derecho and a labor disruption, as well as significant inflationary pressures in the technology space that would have led to a project overrun. Furthermore, the company was able to leverage extended support for its current JD Edwards ERP system until at least December 2035, allowing it to focus on other priorities, such as the EAM system. Please see Schedule 2-5-5 - Capital Expenditures Plan, under section 5.4.2 Enterprise Solutions for additional details.

e) The “2022 assessment” is attached to this interrogatory response and includes both a current state study in August of 2021 as Attachment 4-CCC-36(A) - Hydro Ottawa Current State Analysis Final outlining critical gaps in asset management. This was later followed up in 2022 by Attachment 4-CCC-36(B) - Technology Roadmap For Asset Management with recommendations on a path forward.

f) As noted in the EAM evidence referenced above, current status is centered on development of an EAM roadmap in 2025 to inform future scope including evaluation and selection of EAM technology for execution beginning in 2026. The schedule identified in Table 3 is accurate and the associated costs in Table 4 remain the best forecast available at this time. The EAM project “heavy lifting” will occur in 2026 and 2027.

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-37

EVIDENCE REFERENCE:

Exhibit 4, Tab 1, Schedule 2, pp. 12-14, 18-19

QUESTION(S):

a) (PP. 12-14, 18) Please provide a more detailed breakout of the Testing, Inspection and Maintenance program budget for the 2021-2026 period (as shown in Table 6) using the activities set out in Table 5. Please also further describe the methodology applied for forecasting the costs in the test year.

b) (P. 12) Please provide the total number of cable chambers in Hydro Ottawa's service area. As part of the response, please provide a breakout between company-owned and customer-owned cable chambers.

c) (P. 12) Please provide the number of cable chambers that were previously inspected on a 10-year cycle and will now be inspected on a 5-year cycle.

d) (P. 12) Please advise whether Hydro Ottawa bills the specific owner for its maintenance and inspection activities related to a customer's cable chambers. If not, please explain why.

e) (P. 12) Please provide the number of poles that were previously inspected on a 10-year cycle and will now be inspected on a 5-year cycle.

f) (P. 13) Please further explain the operational expenses expected to be incurred related to the installation of FCIs discussed in Exhibit 2, Tab 5, Schedule 8 (p. 93).

g) (P. 16) Please provide any initial results available from the drone inspection pilot in 2025 and whether there are any implications for the 2026 budget. As part of the response, please discuss whether the use of drones is expected to reduce the need for physical inspections of overhead assets in the future.

h) (P. 19) Please confirm that the $2.8M budget for the NWS programming is related to the non-wire customer solutions.

RESPONSE(S):

a) Table A provides a breakout of the actual/forecasted costs in 2021-2026. The activities in Table 5 of the reference have been grouped by category for this table to match the level of granularity present in the budget. The methodology applied for forecasting the costs in the test year is discussed in Hydro Ottawa's response to the interrogatory question 4-Staff-134 (a) (iii).

Table A - Testing Inspection & Maintenance Program Costs ($'000s)

Asset/Systems	Historical Years			Bridge Years		Test Years
	2021	2022	2023	2024	2025	2026
Cable Chambers	$ 161	$ 414	$ 282	$ 309	$ 319	$ 379
Overhead Equipment	$ 268	$ 261	$ 395	$ 712	$ 1,028	$ 1,556
Underground Equipment	$ 795	$ 552	$ 618	$ 898	$ 1,113	$ 1,805
SCADA Devices	$ 227	$ 173	$ 205	$ 179	$ 192	$ 283
Customer Equipment	$ 10	$ 26	$ 40	$ 70	$ 66	$ 56
Third Party Non Wire Alternative Solutions	-	-	-	-	-	$ 2,871
Overall Distribution	$ 10	$ 7	$ 14	$ 53	$ 102	$ 1,945
TOTAL	**$ 1,470**	**$ 1,433**	**$ 1,555**	**$ 2,221**	**$ 2,820**	**$ 8,894**

b) There are 3,904 cable chambers owned by Hydro Ottawa (as stated in Section 7.1.3.6 of Schedule 2-5-4 - Asset Management Process) and 1,173 cable chambers owned by customers.

c) Hydro Ottawa currently inspects all of the Hydro Ottawa owned 3,904 cable chambers on a 10-year cycle. Hydro Ottawa is still evaluating which cable chambers will be moved to a 5-year inspection frequency based on their relative condition assessments.

d) Hydro Ottawa bills the specific owner for its maintenance and inspection activities related to customer-owned cable chambers.

e) Hydro Ottawa currently inspects 46,636 poles on a 10-year cycle. Hydro Ottawa is still evaluating which poles will be moved to a 5-year inspection frequency based on their relative condition assessments.

f) For the installation of FCIs, there are operational expenses associated with inspecting, maintaining and testing the FCIs to ensure they are operational, inclusive of battery replacements.

g) Please refer to 4-Staff-135 f). The use of drones will replace the ground-based inspections of overhead assets performed historically, as a part of Hydro Ottawa's preventative maintenance program. Hydro Ottawa has budgeted for the use of drones as a program enhancement in 2026, as outlined in Hydro Ottawa's response to 4-Staff-134 part a ii). The use of drones is expected to reduce the need for additional physical patrolling or inspections by Hydro Ottawa's field crews. However, Hydro Ottawa will uphold the existing three-year cycle for both visual inspections and IR scanning of overhead equipment via drones. This approach ensures continued adherence to OEB Appendix C: Minimum Inspection Requirements.

h) Confirmed.

INTERROGATORY RESPONSES TO ONTARIO ENERGY BOARD STAFF

4-Staff-134

EVIDENCE REFERENCE:

Testing, Inspection, and Maintenance OM&A Program
Ref. 1: Exhibit 4 / Tab 1 / Schedule 2 / pp. 10-19 (pdf pp. 51-60)

QUESTION(S):

a) Table 5 in the reference shows a comparison of asset/activity descriptions for the Testing Inspection & Maintenance Activity (Base Program) and the 2026-2030 Program Enhancements. For each of the asset/systems category, please provide the following:
   i) Please provide expected cost increases or decreases by implementing the program enhancements in 2026 compared to the base program.
   ii) Please provide the main drivers of cost increases/decreases in a) i.
   iii) The program cost is forecast to increase by $6.1M in 2026. Please explain how Hydro Ottawa determined the cost for each asset/system category in a) i.
   iv) Did Hydro Ottawa perform any analysis to determine whether there is any future cost saving that would be realized to offset the cost increases from the program enhancements? If so, please provide any supporting documents.

b) Hydro Ottawa states that historical reliability data indicates a slight increase in equipment failures since 2021, particularly in overhead assets and it has experienced a relatively high number of outages each year due to overhead switches, underground transformers and cables, which do not correlate to the condition information and resulting health indices. Please explain what caused these equipment failures.

RESPONSE(S):

a) The requested information for each asset/systems category is detailed below:

i) Expected cost increases by implementing the program enhancements in 2026 compared to the base program total $5.6M, see column 2 of Table A below. Any programs without enhancements in 2026 show 'N/A' as there is no change in costs attributable to changes in program scope.

ii) For the main drivers of cost increases in a) i, see column 3 of Table A.

Table A - Program Enhancement Costs in 2026

Asset/Systems	Cost Increase/Decrease (in $)	Main Driver
Cable Chambers	$ 55,000	General contractor pricing increase and additional duty pay charged for inspecting critical locations such as the middle of major roadways and restricted areas. Proposed improvements towards exploring better inspecting tools/technologies
Distribution Poles	N/A	Drone-based inspection program included as a part of the Overhead Lines and Assets (Overall) enhancement costs.
Overhead Insulators	N/A	No program enhancement in 2026
Overhead Lines and Assets (Overall)	$ 490,000	Drone inspection of overhead lines and assets (including overhead switches and overhead transformers)
Overhead Switches	N/A	Drone-based inspection program included as a part of the Overhead Lines and Assets (Overall) enhancement costs.
Overhead Transformers	N/A	Drone-based inspection program included as a part of the Overhead Lines and Assets (Overall) enhancement costs.
Underground Equipment	$ 90,000	General increase to capture visual inspection and infrared (IR) information related to Hydro Ottawa-owned vault equipment and increasing the frequency of inspection for select vault equipment in a degraded

Asset/Systems	Cost Increase/Decrease (in $)	Main Driver
		condition
Underground Transformers	N/A	No program enhancement in 2026
SCADA Devices	$ 60,000	Expanded maintenance program for FCIs and inspecting DA Devices
Underground Lines & Feeders	$ 245,000	Increased program for formal cable testing to perform Very Low Frequency Tan-Delta, PD and Time Domain Reflectometry test procedures on polymeric distribution cables to prioritize relevant renewal/refurbishment activities.
Customer Equipment	N/A	No program enhancement in 2026
Underground Switchgear	N/A	No program enhancement in 2026
Underground Switchgear & Transformers Inspection	$ 60,000	Increased inspection data capture down to the component level and general contractor price increase
Battery Energy Storage Systems (BESS)	N/A	Not applicable in 2026
Third Party Non Wire Alternative Solutions	$ 2,800,000	Third party operating and maintenance of non-wire alternative solutions
Overall Distribution	$ 1,800,000	Proposed funding to introduce improvements to maintenance programs/practices based on changing/evolving needs. Exploring opportunities include automating/improving the capture of inspection information, enhanced condition assessment based on artificial intelligence, etc.

Asset/Systems	Cost Increase/Decrease (in $)	Main Driver
TOTAL	**$ 5,600,000**	

iii) The maintenance program cost determination basis by asset/system is presented in Table B.

1 **Table B - Program Cost Determination**

Asset/Systems	Cost Determination Basis
Cable Chambers	Based on Contractor Pricing and additional duty charges to be paid for inspecting critical locations. Improvements towards exploring better inspection tools/technologies
Distribution Poles	Based on Contractor Pricing (for drone operator and software platform provider for results/analytics)
Overhead Insulators	N/A
Overhead Lines and Assets (Overall)	Based on Contractor Pricing (for drone operator and software platform provider for results/analytics)
Overhead Switches	Based on Contractor Pricing (for drone operator and software platform provider for results/analytics)
Overhead Transformers	Based on Contractor Pricing (for drone operator and software platform provider for results/analytics)
Underground Equipment	Based on Hydro Ottawa crew involvement and additional budget for comprehensive assessment
Underground Transformers	N/A
SCADA Devices	Based on Hydro Ottawa crew involvement and additional budget for maintaining FCIs
Underground Lines & Feeders	Based on Contractor Pricing for advanced cable testing and switching/isolation
Customer Equipment	N/A
Underground Switchgear	N/A
Underground Switchgear & Transformers Inspection	Based on Contractor Pricing
Battery Energy Storage Systems (BESS)	Not applicable in 2026
Non-Wires Programming & System IntegrationT	Anticipated Contractor Pricing for managing third-party NWS
Maintenance Enhancements and Innovation	Based on estimated engineering, technology, software and implementation costs for improving inspection data capture through image recognition, leveraging machine learning for regional analysis, and automating station inspections.

The remaining projected cost increase of $0.5M for 2026 is related to projected contractor pricing increases, reactive maintenance spending and general inflation, not specific program enhancements.

iv) The cost savings that can be realized by investing in the maintenance program enhancements are embedded in Hydro Ottawa's investment priority/strategy of managing deteriorating asset infrastructure. By 2030, an estimated $862M would be needed to replace all Hydro Ottawa assets projected to be in degraded condition. However, this level of investment is not feasible given other critical financial priorities such as growth, electrification, grid modernization, and resilience. Consequently, Hydro Ottawa is proposing a $261M investment over the next five years (2026-2030). While this will result in an increase in the overall percentage of degraded assets, Hydro Ottawa shall strive to maintain current service levels through 2026-2030 based on a multi-faceted risk-mitigation strategy:

- **Improved Risk Prioritization:** Leveraging predictive analytics to better identify and intervene on the most critical assets.
- **Enhanced Inspection and Maintenance Programs:** Enhanced distribution and stations testing, inspection, and maintenance programs are fundamental to Hydro Ottawa's asset renewal strategy, based on the condition information obtained from the corresponding programs.
- **Advanced Inspection Technologies:** To bolster condition data accuracy, Hydro Ottawa will deploy cutting-edge technologies, including drone inspections for overhead assets. These technologies will enable highly targeted maintenance interventions and more precise asset health assessments. Further information on Hydro Ottawa's investment priorities around renewing deteriorating infrastructure can be found in Section 2.3.2 of Schedule 2-5-1 - Distribution System Plan Overview.

b) The primary causes of overhead switch failures that led to outages between 2019 and 2023 were thermal anomalies like burnt switches/cutouts and physical damage such as broken porcelain switches. Failures of this nature are typically due to age and occur once the overhead switch has reached its Typical Useful Life (TUL). With a large percentage of overhead switches

reaching TUL by 2035 (as outlined in Section 3.3.4 of Schedule 2-5-7 - System Renewal Investments), Hydro Ottawa is enhancing the inspection program to gain a deeper understanding of overhead switch and transformer conditions, as well as recommending drone-based inspections from 2026-2030 to gather more precise data. These enhancements will aid in identifying damage or deficiencies, allowing Hydro Ottawa to plan for replacement before an outage occurs.

The primary causes of underground transformer failures that lead to outages between 2019 and 2023 were corrosion and leaks, leading to electrical failures. Degradation mechanisms that lead to cable failures are difficult to detect and predict. To this end, Hydro Ottawa advanced its testing methodologies and analyzed the regional failure trends in select impacted circuits through a 2024 cable testing pilot. This pilot utilized Very Low Frequency Tan-Delta, Partial Discharge (PD), and Time Domain Reflectometry (TDR) test procedures on polymeric distribution cables. The pilot's results indicated localized degradation patterns, including insulation deterioration and significant cable degradation, enabling Hydro Ottawa to plan targeted interventions. Hydro Ottawa's proposed enhancements to its Underground Lines and Feeders program builds on the cable testing pilot findings and will allow Hydro Ottawa to gain a better understanding of regional failure trends and outage causes, allowing for more targeted, risk-based intervention.

INTERROGATORY RESPONSES TO CONSUMERS COUNCIL OF CANADA

4-CCC-35

EVIDENCE REFERENCE:

Appendix 2-JC

QUESTION(S):

a) Please provide a revised version of Appendix 2-JC that includes an update to the forecasted 2024 and 2025 OM&A costs using the current best available information.

b) For each OM&A program listed in Appendix 2-JC, please provide, for each year in the 2021-2026 period, a breakdown of the total labour costs between Hydro Ottawa labour and contracted labour (e.g. contractors, consultants, etc.). Please also provide a discussion of any year-over-year changes in the proportion of work completed by Hydro Ottawa labour relative to contracted labour.

RESPONSE(S):

a) Please see the response to interrogatory 1-Staff-1(A) - Chapter 2 Appendices for a revised Appendix 2-JC showing 2024 full year actuals, and June year-to-date actuals for 2025 (along with comparable six month periods for 2024 and 2023). Please note that the June results are subject to year-end adjustments, as certain reclassification and true-up accounting entries are performed annually and are not reflected in these interim figures. An updated 2025 forecast will not be available until October 2025.

b) Please see Table A below with a breakdown of the total labour costs between Hydro Ottawa labour and contracted labour (e.g. contractors and consultants). The Others category on the bottom of the table is non-labour costs for all programs.

Table A – Summary of Labour Costs by JC Category 2021-2026 ($'000s)[1]

Programs		Historical Years			Bridge Years		Test Year
	Labour Type	2021	2022	2023	2024	2025	2026
Testing, Inspection & Maintenance	Internal	$ 331	$ 253	$ 247	$ 411	$ 622	$ 4,112
	Contracted	$ 1,077	$ 1,111	$ 1,203	$ 1,692	$ 1,998	$ 4,015
Vegetation Management	Internal	$ 559	$ 1,271	$ 966	$ 811	$ 878	$ 747
	Contracted	$ 3,177	$ 5,278	$ 5,169	$ 5,425	$ 4,741	$ 5,148
Underground Locates	Internal	$ 578	$ 482	$ 459	$ 1,075	$ 1,199	$ 555
	Contracted	$ 2,633	$ 3,015	$ 2,885	$ 3,323	$ 3,803	$ 5,399
Stations Maintenance	Internal	$ 1,931	$ 2,082	$ 2,286	$ 2,600	$ 3,076	$ 3,596
	Contracted	$ 565	$ 482	$ 449	$ 544	$ 676	$ 973
Distribution Overhead & Underground Maintenance	Internal	$ 1,549	$ 1,938	$ 1,955	$ 1,959	$ 1,881	$ 1,676
	Contracted	$ 310	$ 367	$ 5,932	$ 532	$ 529	$ 710
Metering	Internal	$ 1,447	$ 1,467	$ 1,307	$ 1,606	$ 1,588	$ 1,542
	Contracted	$ 28	$ 261	$ 108	$ 106	$ 115	$ 147
System Operations & 24/7	Internal	$ 4,275	$ 7,328	$ 5,426	$ 4,764	$ 5,430	$ 5,418
	Contracted	$ 22	$ 1,233	$ 2,087	$ 383	$ 347	$ 373
Engineering & Design	Internal	$ 4,189	$ 4,569	$ 4,760	$ 6,109	$ 5,639	$ 8,328
	Contracted	$ 289	$ 407	$ 532	$ 625	$ 625	$ 1,044
Distribution Support	Internal	$ 3,006	$ 4,062	$ 4,894	$ 8,632	$ 7,352	$ 7,014
	Contracted	$ 365	$ 442	$ 577	$ 613	$ 617	$ 574
Minor Maintenance	Internal	$ 795	$ 767	$ 729	$ 384	$ 518	$ 977
	Contracted	$ 52	$ 62	$ 85	$ 66	$ 62	$ 66
Collections	Internal	$ 726	$ 694	$ 595	$ 676	$ 719	$ 752
	Contracted	$ 30	$ 39	$ 11	$ 38	$ 39	$ 38

[1] The contracted labour costs may include trucking costs which are integrated within the invoices for contracted services

Programs		Historical Years			Bridge Years		Test Year
	Labour Type	2021	2022	2023	2024	2025	2026
Customer Billing	Internal	$ 2,822	$ 2,679	$ 2,547	$ 3,145	$ 3,274	$ 3,554
	Contracted	$ 356	$ 386	$ 418	$ 436	$ 439	$ 349
Customer & Community Relations	Internal	$ 3,939	$ 4,618	$ 3,955	$ 4,758	$ 5,057	$ 5,247
	Contracted	$ 1,722	$ 1,950	$ 2,223	$ 2,566	$ 2,587	$ 2,312
Information Management & Technology	Internal	$ 4,352	$ 4,821	$ 4,769	$ 5,214	$ 6,134	$ 7,123
	Contracted	$ 606	$ 1,010	$ 913	$ 1,327	$ 1,535	$ 1,145
Safety, Environment & Business Continuity	Internal	$ 1,565	$ 1,581	$ 1,819	$ 2,217	$ 2,440	$ 2,903
	Contracted	$ 697	$ 1,157	$ 610	$ 291	$ 304	$ 510
Human Resources	Internal	$ 2,720	$ 3,366	$ 3,459	$ 3,281	$ 3,433	$ 3,833
	Contracted	$ 727	$ 547	$ 1,859	$ 1,047	$ 915	$ 800
Supply Chain	Internal	$ 1,114	$ 807	$ 426	$ 707	$ 745	$ 760
	Contracted	$ 64	$ 131	$ 44	$ 60	$ 60	$ 55
Facilities	Internal	$ 794	$ 927	$ 968	$ 883	$ 879	$ 959
	Contracted	$ 3,097	$ 3,022	$ 7,543	$ 3,720	$ 3,621	$ 3,536
Finance	Internal	$ 3,480	$ 3,420	$ 3,396	$ 3,674	$ 3,811	$ 3,991
	Contracted	$ (25)	$ -	$ 1	$ 45	$ 45	$ 5
Regulatory Affairs	Internal	$ 993	$ 1,152	$ 985	$ 1,091	$ 1,196	$ 1,370
	Contracted	$ 435	$ 406	$ 388	$ 517	$ 517	$ 1,135
Corporate Costs	Internal	$ 987	$ 550	$ 832	$ 1,246	$ 1,278	$ 1,313
	Contracted	$ 34	$ 52	$ 20	$ 40	$ 40	$ 30
Sub-total		**$ 58,413**	**$ 70,190**	**$ 79,839**	**$ 78,638**	**$ 80,767**	**$ 94,136**
Others		$ 26,324	$ 30,346	$ 32,939	$ 36,683	$ 38,155	$ 45,874
TOTAL		**$ 84,737**	**$ 100,536**	**$ 112,778**	**$ 115,320**	**$ 118,922**	**$ 140,010**

For the year-over-year changes in the proportion of work completed by Hydro Ottawa labour relative to contracted labour see Table B below. For all years except for 2023, the ratio of Hydro Ottawa labour is consistent and ranges from 70% to 72% with an average of 71%. For contracted labour, the range is 28% to 30% with an average of 29% for all years except for

2023. During 2023, Hydro Ottawa had an 84-day labour strike which shifted this 70%/30% proportion and 41% of the labour in that year was contracted out.

Table B – Year-over-year Proportion of Work Completed

	Historical Years			Bridge Years		Test Year
Labour Type	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Internal	72%	70%	59%	70%	71%	70%
Contracted	28%	30%	41%	30%	29%	30%