EXHIBIT 2 – RATE BASE

2024 Cost of Service

Tillsonburg Hydro Inc.
EB-2023-0053

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2.1. OVERVIEW OF RATE BASE

THI's methodology of calculating its Rate Base has not changed from its last costs of service applications (2013) and is in line with the OEB's methodology of determining a Rate Base. The net fixed assets used to determine the utility's Rate Base include those distribution assets associated with activities that enable the conveyance of electricity for distribution purposes. THI does not have non-distribution assets, nor does it conduct non-distribution activities. Controllable expenses include operations and maintenance, billing and collecting, and administration costs discussed in detail in Exhibit 4.

THI has calculated its' Test Year 2024 Rate Base to be $19,443,156. This rate base is also used to determine the proposed revenue requirement found in Exhibit 6. The table below presents THI's Rate Base calculations for the Test Year compared to the 2013 Board Approved.

Table 1 – Change in Rate Base from 2013 BA

Particulars	Last Board Approved	2024	Var from 2013
Net Capital Assets in Service:			
Year End Capex	$16,730,825	$32,036,650	$15,305,825
Year End Accumulated Depreciation	-$9,434,702	$14,374,536	$23,809,238
Net Book	$7,296,123	$17,662,114	$10,365,991
Working Capital Allowance	$2,527,065	$1,781,042	-$746,023
Total Rate Base	**$9,823,188**	**$19,443,156**	$9,619,968
Expenses for Working Capital	**Last Board Approved**	**2024**	**Var from 2013**
Eligible Distribution Expenses:			
3500-Distribution Expenses - Operation	$882,270	$525,582	-$356,688
3550-Distribution Expenses - Maintenance	$275,312	$209,849	-$65,463
3650-Billing and Collecting	$613,505	$813,409	$199,904
3700-Community Relations	$900	$0	-$900
3800-Administrative and General Expenses	$743,095	$1,723,389	$980,294
LEAP		$5,500	$0
Total Eligible Distribution Expenses	$2,515,082	$3,277,729	$762,647
3350-Power Supply Expenses	$18,543,794	$20,469,496	$1,925,702
Total Expenses for Working Capital	$21,058,876	$23,747,225	$5,061,958
Working Capital factor	12.00%	7.50%	
Total Working Capital	**$2,527,065**	**$1,781,042**	**-$746,023**

2.1.1 Rate Base Trend and Cost Drivers

The Rate Base trend table presents THI's Rate Base calculations for all required years, including the Test Year 2024. Year-over-year variance analysis follows.

Table 2 – Rate Base Trend

Particulars	Last Board Approved	2013	2014	2015	2016	2017	2018
Net Capital Assets in Service:							
Year End CapEx	$16,730,825	$17,078,910	$17,916,955	$18,250,878	$18,759,734	$19,667,188	$20,968,900
Year End Accumulated Depreciation	-$9,434,702	$9,792,626	$10,076,657	$10,378,799	$10,669,147	$10,905,106	$11,181,390
Net Book	$7,296,123	$7,286,284	$7,840,299	$7,872,080	$8,090,587	$8,762,081	$9,787,510
Working Capital Allowance	$2,527,065	$2,777,978	$2,956,464	$3,151,870	$3,461,447	$3,154,613	$2,905,416
Total Rate Base	**$9,823,188**	**$10,064,262**	**$10,796,763**	**$11,023,950**	**$11,552,034**	**$11,916,694**	**$12,692,926**
Expenses for Working Capital	**Last Board Approved**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Eligible Distribution Expenses:							
3500- Expenses - Operation	$882,270	$1,190,472	$900,612	$644,836	$498,266	$571,936	$723,170
3550--Expenses - Maintenance	$275,312	$167,665	$118,102	$144,270	$178,960	$110,751	$234,868
3650-Billing and Collecting	$613,505	$643,690	$565,204	$586,908	$604,067	$630,301	$658,554
3700-Community Relations	$900	$0	$0	$0	$530	$150	$0
3800-Admin and General Expenses	$743,095	$976,737	$907,243	$1,124,873	$1,443,182	$1,381,923	$1,315,486
LEAP		$0	$0	$0	$0	$0	$0
Total Eligible Distribution Expenses	$2,515,082	$2,978,564	$2,491,161	$2,500,887	$2,725,005	$2,695,060	$2,932,078
3350-Power Supply Expenses	$18,543,794	$20,171,254	$22,146,038	$23,764,696	$26,120,389	$23,593,380	$21,279,721
Total Expenses for Working Capital	$21,058,876	$23,149,818	$24,637,199	$26,265,583	$28,845,394	$26,288,440	$24,211,799
Working Capital factor	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Total Working Capital	**$2,527,065**	**$2,777,978**	**$2,956,464**	**$3,151,870**	**$3,461,447**	**$3,154,613**	**$2,905,416**

Particulars	2019	2020	2021	2022	2023	2024	Var from 2013
Net Capital Assets in Service:							
Year End CapEx	$23,175,217	$25,555,888	$27,109,828	$28,317,055	$29,979,343	$32,036,650	$15,305,825
Year End Accumulated Depreciation	$11,585,832	$12,045,226	$12,540,543	$13,100,971	$13,715,393	$14,374,536	$23,809,238
Net Book	$11,589,385	$13,510,662	$14,569,284	$15,216,084	$16,263,950	$17,662,114	$10,365,991
Working Capital Allowance	$2,785,025	$3,134,500	$2,866,741	$2,985,760	$2,891,911	$1,781,042	-$746,023
Total Rate Base	**$14,374,410**	**$16,645,162**	**$17,436,025**	**$18,201,844**	**$19,155,860**	**$19,443,156**	**$9,619,968**
Expenses for Working Capital	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**Var from 2013**
Eligible Distribution Expenses:							
3500- Expenses - Operation	$644,867	$600,165	$545,201	$558,349	$503,729	$525,582	-$356,688
3550--Expenses - Maintenance	$210,034	$258,503	$189,919	$178,192	$203,359	$209,849	-$65,463
3650-Billing and Collecting	$740,168	$720,741	$762,553	$802,621	$800,229	$813,409	$199,904
3700-Community Relations	$0	$0	$0	$0	$0	$0	-$900
3800-Admin and General Expenses	$1,278,057	$1,263,432	$1,385,362	$1,367,591	$1,583,612	$1,723,389	$980,294
LEAP	$0	$0	$0	$0	$5,200	$5,500	$0
Total Eligible Distribution Expenses	$2,873,126	$2,842,841	$2,883,036	$2,906,752	$3,096,129	$3,277,729	$762,647
3350-Power Supply Expenses	$20,335,413	$23,277,993	$21,006,471	$21,974,580	$21,003,127	$20,469,496	$1,925,702
Total Expenses for Working Capital	$23,208,539	$26,120,834	$23,889,506	$24,881,332	$24,099,255	$23,747,225	$5,061,958
Working Capital factor	12.00%	12.00%	12.00%	12.00%	12.00%	7.50%	
Total Working Capital	**$2,785,025**	**$3,134,500**	**$2,866,741**	**$2,985,760**	**$2,891,911**	**$1,781,042**	**-$746,023**

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THI notes that it uses “in-service”, “capital additions” and “capital expenditures” interchangeably as THI does not have any Work in Progress capital projects.

The Rate Base for the 2024 Test Year has increased by $9,619,968 over the last board approved.

Capital additions net of accumulated depreciation over this period grew at a CAGR of approximately 6% which is offset by a Working Capital Allowance (“WCA”) decrease at a CAGR of approximately 3%.

The reason for the increase from the 2013 Cost of Service is primarily attributed to net capital additions over the six year period of 2017 to 2023 averaging approximately $1.7M per year (i.e. approximate total of $10M) to support a) customer additions increasing approximately 14% over the same period and b) findings in THI’s 2016 Asset Management Plan (“AMP”) which highlighted that assets were exceeding Maximum Useful Life (“MUL”) at a pace much faster than they were being replaced, and Reliability Analysis highlighted equipment failure as the main contributor to the increase in duration and frequency of outages. For details on THI’s capital expenditure of this period please see Section 5.4.1 c) Historical Variances by Category of the Distribution System Plan.

THI forecasts similar increases to capital additions in 2024 offset by THI incorporating the OEB’s standard for WCA of 7.5%.

THI notes that it has forecasted a decrease in the 2023 and 2024 Power Supply Expenses over its’ 2013 Cost of Service. This is due to the Ontario Electricity Rebate credit being applied to Regulated Price Plan billing components since 2021.

2.1.7 Facilitating Innovation

THI has incorporated innovation into its business planning and execution processes. Since its last rebasing, THI has improved internal financial and operations management, data collection and reporting processes. The improved processes have allowed THI to manage its number of FTEs which has benefited customers.

Additionally, THI has invested in its system as noted throughout this application. System investments have resulted in improved reliability which has benefited customers.

2.1.9 Distributor Consolidations

THI notes that it has entered into the SOW with the Manager (i.e. ERTH Power). THI’s Board of Directors is evaluating the potential of amalgamations as defined under the OEB’s Mergers Amalgamation Acquisition and Divestiture guidelines.

2.1.10 Impacts of COVID-19 Pandemic

THI confirms that it has reflected the impacts of the COVID-19 pandemic in its Application. With respect to recovery of previously incurred costs associated with the COVID-19 pandemic, THI is not seeking recovery.

2.1.11 Telecommunications Entities

THI being an urban, high density utility, can confirm that all of its service territory has comprehensive telecommunications services; including broadband and cellular. THI continues to maintain communications with telecommunication providers who have not requested any capital investments.

2.2. FIXED ASSET

2.2.1 Fixed Asset Continuity

This Schedule presents a continuity schedule of its investment in capital assets, the associated accumulated amortization, and the net book value for each Capital USoA account for the 2013 to 2022 Actuals and 2023 Bridge and 2024 Test Years.

THI attests that the OEB Appendices 2-BA continuity statements presented in the Chapter 2 Appendices 2-AB and reconcile with the calculated depreciation expenses included in Chapter 2 Appendices 2-C. The utility also attests that the net book value balances reported on Appendix 2-BA and balances reconcile with the rate base calculation.

Variances between capital expenditures and gross capital additions (per the Fixed Asset Continuity Schedule ("FACS") are primarily driven by variances in timing and historical record management which has been resolved as of 2021. THI recently implemented processes to record CWIP, and is continues to refine its approach to ensure consistent tracking of these amounts.

In this application, THI is not seeking recovery of interest amounts accrued on CWIP while process improvements are ongoing. Additionally, for reconciliation of records between distinct systems, THI relies on different systems for the purpose of tracking projects as opposed to financial actuals. The system relied upon to track projects was used for completion of the DSP in order to assign capital to the OEB's prescribed categories, however some capital in-service additions are not assigned to an individual project, creating an misalignment between records shown in the DSP and the FACS.

The Excel version of the OEB Appendices is filed in conjunction with this application. Information on year-over-year variance and explanations where variances exceed the materiality threshold is summarized is explained in detail in THI's 2024 Distribution System Plan.

THI does not have any asset retirement obligations (AROs) or any associated depreciation or accretion expenses related to an asset retirement obligation.

Accumulated Depreciation

THI has adopted depreciation rates based on the Kinectrics Asset Depreciation Study, which can be found at the following secure link:

https://www.oeb.ca/oeb/_Documents/EB-2010-0178/Kinetrics-418033-OEB%20Asset%20Amortization-%20Final%20Rep.pdf

The depreciation rates, THI's capitalization policy, methodology, and depreciation expenses continuity schedules are presented in section 2.2.3.

Below are the Fixed Asset Continuity Schedules for 2013 to 2024.

Table 3 – 2013 Continuity schedule

Year 2013

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 553,299	$ 2,826	$ -	$ 556,125	$ 423,897	$ 66,693	$ -	$ 490,590	$ 65,535	$ 554,712	$ 457,243
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$ 11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 400,152	$ 4,058	$ -	$ 404,210	$ 125,612	$ 1,980	$ -	$ 127,592	$ 276,618	$ 402,181	$ 126,602
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 4,806,087	$ 54,543	$ -	$ 4,860,630	$ 3,144,849	$ 26,356	$ -	$ 3,171,205	$ 1,689,426	$ 4,833,359	$ 3,158,027
47	1835	Overhead Conductors & Devices	$ 1,659,325	$ 67,933	$ -	$ 1,727,258	$ 384,990	$ 33,144	$ -	$ 418,133	$ 1,309,125	$ 1,693,292	$ 401,562
47	1840	Underground Conduit	$ 3,524,603	$ 30,456	$ -	$ 3,555,059	$ 2,507,605	$ 9,881	$ -	$ 2,517,486	$ 1,037,573	$ 3,539,831	$ 2,512,545
47	1845	Underground Conductors & Devices	$ 1,560,598	$ 46,392	$ -	$ 1,606,990	$ 411,660	$ 50,212	$ -	$ 461,872	$ 1,145,118	$ 1,583,794	$ 436,766
47	1850	Line Transformers	$ 4,486,913	$ 276,681	$ -	$ 4,763,594	$ 2,193,159	$ 62,126	$ -	$ 2,255,285	$ 2,508,309	$ 4,625,253	$ 2,224,222
47	1855	Services (Overhead & Underground)	$ 1,156,294	$ 64,897	$ -	$ 1,221,191	$ 236,363	$ 24,974	$ -	$ 261,337	$ 959,854	$ 1,188,743	$ 248,850
47	1860	Meters	$ 124,339	$ 15,214	$ -	$ 139,553	$ 33,011	$ 4,266	$ -	$ 37,277	$ 102,277	$ 131,946	$ 35,144
47	1860	Meters (Smart Meters)	$ 980,897	$ 10,799	$ -	$ 991,696	$ 171,637	$ 68,510	$ -	$ 240,147	$ 751,548	$ 986,296	$ 205,892
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 19,795	$ 91	$ -	$ 19,886	$ 16,051	$ 2,172	$ -	$ 18,223	$ 1,663	$ 19,840	$ 17,137
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 2,838,083	-$ 80,931	$ 773,381	-$ 2,145,632	$ -	-$ 62,729	$ -	-$ 62,729	-$ 2,082,904	-$ 2,491,857	-$ 31,364
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Sub-Total	**$ 16,445,740**	**$ 492,959**	**$ 773,381**	**$ 17,712,080**	**$ 9,648,835**	**$ 346,396**	**$ -**	**$ 9,936,418**	**$ 7,775,662**	**$ 17,078,910**	**$ 9,792,626**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)	$0	$0	$0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Total PP&E	**$ 16,445,740**	**$ 492,959**	**$ 773,381**	**$ 17,712,080**	**$ 9,648,835**	**$ 346,396**	**$ -**	**$ 9,936,418**	**$ 7,775,662**	$ 17,078,910	$ 9,792,626
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 7,286,284
		Total						**$ 346,396**					

			Less: *Fully Allocated Depreciation*	
10	1930	Transportation	Transportation	$ -
8	1935	Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 62,729
			Net Depreciation	$ 409,124

Table 4 – 2014 Continuity schedule

Year: 2014

CCA Class [2]	OEB Account [3]	Description [3]	Cost: Opening Balance [8]	Cost: Additions [4]	Cost: Disposals [6]	Cost: Closing Balance	Accumulated Depreciation: Opening Balance [8]	Accumulated Depreciation: Additions	Accumulated Depreciation: Disposals [6]	Accumulated Depreciation: Closing Balance	Net Book Value	Avg Gross Balance	Avg Acc Dep
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 490,590	$ 45,953	$ -	$ 536,543	$ 19,582	$ 556,125	$ 513,566
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$ 11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 404,210	$ -	$ -	$ 404,210	$ 127,592	$ 1,980	$ -	$ 129,571	$ 274,638	$ 404,210	$ 128,581
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 4,860,630	$ 129,822	$ -	$ 4,990,452	$ 3,171,205	$ 28,199	$ -	$ 3,199,404	$ 1,791,048	$ 4,925,541	$ 3,185,304
47	1835	Overhead Conductors & Devices	$ 1,727,258	$ 57,180	$ -	$ 1,784,438	$ 418,133	$ 34,577	$ -	$ 452,711	$ 1,331,728	$ 1,755,848	$ 435,422
47	1840	Underground Conduit	$ 3,555,059	$ 18,134	$ -	$ 3,573,193	$ 2,517,486	$ 10,367	$ -	$ 2,527,853	$ 1,045,340	$ 3,564,126	$ 2,522,669
47	1845	Underground Conductors & Devices	$ 1,606,990	$ 37,998	$ -	$ 1,644,988	$ 461,872	$ 51,618	$ -	$ 513,490	$ 1,131,498	$ 1,625,989	$ 487,681
47	1850	Line Transformers	$ 4,763,594	$ 77,141	$ -	$ 4,840,734	$ 2,255,285	$ 66,549	$ -	$ 2,321,834	$ 2,518,901	$ 4,802,164	$ 2,288,559
47	1855	Services (Overhead & Underground)	$ 1,221,191	$ 66,121	$ -	$ 1,287,312	$ 261,337	$ 26,366	$ -	$ 287,703	$ 999,609	$ 1,254,251	$ 274,520
47	1860	Meters	$ 139,553	$ 24,690	$ -	$ 164,243	$ 37,277	$ 6,138	$ -	$ 43,415	$ 120,828	$ 151,898	$ 40,346
47	1860	Meters (Smart Meters)	$ 991,696	$ -	$ -	$ 991,696	$ 240,147	$ 68,870	$ -	$ 309,018	$ 682,678	$ 991,696	$ 274,582
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 19,886	$ -	$ -	$ 19,886	$ 18,223	$ 1,599	$ -	$ 19,822	$ 64	$ 19,886	$ 19,022
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 2,145,632	-$ 1,334	$ -	-$ 2,146,966	-$ 62,729	-$ 61,740	$ -	-$ 124,468	-$ 2,022,498	-$ 2,146,299	-$ 93,598
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Sub-Total	**$ 17,712,080**	**$ 409,751**	**$ -**	**$ 18,121,831**	**$ 9,936,418**	**$ 280,477**	**$ -**	**$ 10,216,895**	**$ 7,904,936**	**$ 17,916,955**	**$ 10,076,657**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)	0	0	0	$ -	0	0		$ -	$ -	$ -	$ -
		Total PP&E	**$ 17,712,080**	**$ 409,751**	**$ -**	**$ 18,121,831**	**$ 9,936,418**	**$ 280,477**	**$ -**	**$ 10,216,895**	**$ 7,904,936**	$ 17,916,955	$ 10,076,657
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 7,840,299
		Total						**$ 280,477**					

Less: *Fully Allocated Depreciation*

10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 61,740
			Net Depreciation	$ 342,217

Table 5 – 2015 Continuity schedule

Year 2015

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 536,543	$ 18,168	$ -	$ 554,711	$ 1,414	$ 556,125	$ 545,627
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$ 11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 404,210	$ -	$ -	$ 404,210	$ 129,571	$ 1,980	$ -	$ 131,551	$ 272,659	$ 404,210	$ 130,561
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 4,990,452	$ 41,196	$ -	$ 5,031,648	$ 3,199,404	$ 29,909	$ -	$ 3,229,313	$ 1,802,335	$ 5,011,050	$ 3,214,359
47	1835	Overhead Conductors & Devices	$ 1,784,438	$ 39,029	$ -	$ 1,823,467	$ 452,711	$ 37,483	$ -	$ 490,194	$ 1,333,273	$ 1,803,953	$ 471,452
47	1840	Underground Conduit	$ 3,573,193	$ 197,096	$ -	$ 3,770,289	$ 2,527,853	$ 12,519	$ -	$ 2,540,372	$ 1,229,917	$ 3,671,741	$ 2,534,112
47	1845	Underground Conductors & Devices	$ 1,644,988	$ 157,956	$ -	$ 1,802,944	$ 513,490	$ 54,884	$ -	$ 568,374	$ 1,234,570	$ 1,723,966	$ 540,932
47	1850	Line Transformers	$ 4,840,734	$ 89,169	$ -	$ 4,929,903	$ 2,321,834	$ 68,627	$ -	$ 2,390,461	$ 2,539,442	$ 4,885,319	$ 2,356,147
47	1855	Services (Overhead & Underground)	$ 1,287,312	$ 54,156	$ -	$ 1,341,468	$ 287,703	$ 27,644	$ -	$ 315,347	$ 1,026,121	$ 1,314,390	$ 301,525
47	1860	Meters	$ 164,243	$ 13,203	$ -	$ 177,446	$ 43,415	$ 6,896	$ -	$ 50,311	$ 127,135	$ 170,844	$ 46,863
47	1860	Meters (Smart Meters)	$ 991,696	$ -	$ -	$ 991,696	$ 309,018	$ 68,870	$ -	$ 377,888	$ 613,808	$ 991,696	$ 343,453
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 19,886	$ -	$ -	$ 19,886	$ 19,822	$ 18	$ -	$ 19,840	$ 45	$ 19,886	$ 19,831
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue [5]	-$ 2,146,966	-$ 333,711	$ -	-$ 2,480,677	-$ 124,468	-$ 3,193	$ -	-$ 127,661	-$ 2,353,015	-$ 2,313,821	-$ 126,065
	2005	Property Under Finance Lease [7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Sub-Total	**$ 18,121,831**	**$ 258,094**	**$ -**	**$ 18,379,926**	**$ 10,216,895**	**$ 323,807**	**$ -**	**$ 10,540,702**	**$ 7,839,223**	**$ 18,250,878**	**$ 10,378,799**
		Less Socialized Renewable Energy Generation Investments (input as negative)		0	0	$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)	0	0	0	$ -	0	0	0	$ -	-$ 2,130,302	$ -	$ -
		Total PP&E	**$ 18,121,831**	**$ 258,094**		**$ 18,379,926**	**$ 10,216,895**	**$ 323,807**	**$ -**	**$ 10,540,702**	**$ 5,708,922**	$ 18,250,878	$ 10,378,799
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable [6]											$ 7,872,080
		Total						**$ 323,807**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 3,193
			Net Depreciation	$ 327,000

Table 6 – 2016 Continuity schedule

Year 2016

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 554,711	$ 565	$ -	$ 555,277	$ 848	$ 556,125	$ 554,994
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$ 11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 404,210	$ -	$ -	$ 404,210	$ 131,551	$ 1,980	$ -	$ 133,531	$ 270,679	$ 404,210	$ 132,541
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 5,031,648	$ 84,845	$ -	$ 5,116,493	$ 3,229,313	$ 30,321	$ -	$ 3,259,635	$ 1,856,858	$ 5,074,071	$ 3,244,474
47	1835	Overhead Conductors & Devices	$ 1,823,467	$ 94,062	$ -	$ 1,917,530	$ 490,194	$ 39,008	$ -	$ 529,202	$ 1,388,327	$ 1,870,498	$ 509,698
47	1840	Underground Conduit	$ 3,770,289	$ 131,941	$ -	$ 3,902,230	$ 2,540,372	$ 15,810	$ -	$ 2,556,182	$ 1,346,049	$ 3,836,259	$ 2,548,277
47	1845	Underground Conductors & Devices	$ 1,802,944	$ 89,966	$ -	$ 1,892,910	$ 568,374	$ 59,016	$ -	$ 627,390	$ 1,265,520	$ 1,847,927	$ 597,882
47	1850	Line Transformers	$ 4,929,903	$ 156,000	$ -	$ 5,085,903	$ 2,390,461	$ 71,692	$ -	$ 2,462,153	$ 2,623,750	$ 5,007,903	$ 2,426,307
47	1855	Services (Overhead & Underground)	$ 1,341,468	$ 249,854	$ -	$ 1,591,322	$ 315,347	$ 30,874	$ -	$ 346,221	$ 1,245,101	$ 1,466,395	$ 330,784
47	1860	Meters	$ 177,446	$ 21,429	$ -	$ 198,875	$ 50,311	$ 8,576	$ -	$ 58,888	$ 139,987	$ 188,160	$ 54,599
47	1860	Meters (Smart Meters)	$ 991,696	$ -	$ -	$ 991,696	$ 377,888	$ 68,870	$ -	$ 446,758	$ 544,938	$ 991,696	$ 412,323
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 19,886	$ -	$ -	$ 19,886	$ 19,840	$ 18	$ -	$ 19,858	$ 27	$ 19,886	$ 19,849
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ 12,660	$ -	$ 12,660	$ -	$ 1,266	$ -	$ 1,266	$ 11,394	$ 6,330	$ 633
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 2,480,677	-$ 81,140	$ -	-$ 2,561,817	-$ 127,661	-$ 71,107	$ -	-$ 198,769	-$ 2,363,049	-$ 2,521,247	-$ 163,215
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Sub-Total	**$ 18,379,926**	**$ 759,617**	**$ -**	**$ 19,139,542**	**$ 10,540,702**	**$ 256,890**	**$ -**	**$ 10,797,592**	**$ 8,341,950**	**$ 18,759,734**	**$ 10,669,147**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets *(input as negative)*	0	0	0	$ -	0	0	0	$ -	$ -	$ -	$ -
		Total PP&E	**$ 18,379,926**	**$ 759,617**	**$ -**	**$ 19,139,542**	**$ 10,540,702**	**$ 256,890**	**$ -**	**$ 10,797,592**	**$ 8,341,950**	$ 18,759,734	$ 10,669,147
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 8,090,587
		Total						**$ 256,890**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 71,107
			Net Depreciation	$ 327,997

Table 7 – 2017 Continuity schedule

Year 2017

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 555,277	$ 565	$ -	$ 555,842	$ 283	$ 556,125	$ 555,559
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$ 11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 404,210	$ -	-$ 218,512	$ 185,698	$ 133,531	$ 1,878	-$ 72,186	$ 63,223	$ 122,475	$ 294,954	$ 98,377
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 5,116,493	$ 332,444	$ -	$ 5,448,937	$ 3,259,635	$ 35,343	$ -	$ 3,294,977	$ 2,153,959	$ 5,282,715	$ 3,277,306
47	1835	Overhead Conductors & Devices	$ 1,917,530	$ 183,437	$ -	$ 2,100,967	$ 529,202	$ 42,188	$ -	$ 571,391	$ 1,529,576	$ 2,009,248	$ 550,296
47	1840	Underground Conduit	$ 3,902,230	$ 254,954	$ -	$ 4,157,184	$ 2,556,182	$ 19,679	$ -	$ 2,575,860	$ 1,581,324	$ 4,029,707	$ 2,566,021
47	1845	Underground Conductors & Devices	$ 1,892,910	$ 502,079	$ -	$ 2,394,989	$ 627,390	$ 68,884	$ -	$ 696,274	$ 1,698,715	$ 2,143,950	$ 661,832
47	1850	Line Transformers	$ 5,085,903	$ 239,071	$ -	$ 5,324,974	$ 2,462,153	$ 76,630	$ -	$ 2,538,783	$ 2,786,190	$ 5,205,438	$ 2,500,468
47	1855	Services (Overhead & Underground)	$ 1,591,322	$ 117,051	$ -	$ 1,708,373	$ 346,221	$ 34,772	$ -	$ 380,993	$ 1,327,379	$ 1,649,847	$ 363,607
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 58,888	$ 9,005	$ -	$ 67,893	$ 130,982	$ 198,875	$ 63,390
47	1860	Meters (Smart Meters)	$ 991,696	$ 36,891	$ -	$ 1,028,587	$ 446,758	$ 70,100	$ -	$ 516,858	$ 511,729	$ 1,010,141	$ 481,808
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 19,886	$ 5,285	$ -	$ 25,171	$ 19,858	$ 547	$ -	$ 20,405	$ 4,766	$ 22,528	$ 20,132
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ 12,660	$ 25,340	$ -	$ 38,000	$ 1,266	$ 5,066	$ -	$ 6,332	$ 31,668	$ 25,330	$ 3,799
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 2,561,817	-$ 422,749	$ -	-$ 2,984,566	-$ 198,769	-$ 77,442	$ -	-$ 276,210	-$ 2,708,355	-$ 2,773,191	-$ 237,489
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Sub-Total	**$ 19,139,542**	**$ 1,273,803**	**-$ 218,512**	**$ 20,194,833**	**$ 10,797,592**	**$ 287,214**	**-$ 72,186**	**$ 11,012,621**	**$ 9,182,213**	**$ 19,667,188**	**$ 10,905,106**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)	0	0	0	$ -	0	0	0	$ -	$ -	$ -	$ -
		Total PP&E	**$ 19,139,542**	**$ 1,273,803**	**-$ 218,512**	**$ 20,194,833**	**$ 10,797,592**	**$ 287,214**	**-$ 72,186**	**$ 11,012,621**	**$ 9,182,213**	$ 19,667,188	$ 10,905,106
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 8,762,081
		Total						**$ 287,214**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 77,442
			Net Depreciation	$ 364,656

Table 8 – 2018 Continuity schedule

Year 2018

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 555,842	$ 283	$ -	$ 556,125	$0	$ 556,125	$ 555,983
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 185,698	$ 28,028	$ -	$ 213,726	$ 63,223	$ 2,228	$ -	$ 65,451	$148,275	$ 199,712	$ 64,337
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 5,448,937	$ 400,582	-$ 56,160	$ 5,793,359	$ 3,294,977	$ 42,673	$ -	$ 3,337,650	$2,455,709	$ 5,621,148	$ 3,316,314
47	1835	Overhead Conductors & Devices	$ 2,100,967	$ 406,564	-$ 8,798	$ 2,498,733	$ 571,391	$ 48,949	$ -	$ 620,339	$1,878,394	$ 2,299,850	$ 595,865
47	1840	Underground Conduit	$ 4,157,184	$ 240,401	$ -	$ 4,397,585	$ 2,575,860	$ 24,632	$ -	$ 2,600,492	$1,797,093	$ 4,277,385	$ 2,588,176
47	1845	Underground Conductors & Devices	$ 2,394,989	$ 118,330	$ -	$ 2,513,319	$ 696,274	$ 79,224	$ -	$ 775,498	$1,737,822	$ 2,454,154	$ 735,886
47	1850	Line Transformers	$ 5,324,974	$ 241,985	$ -	$ 5,566,959	$ 2,538,783	$ 82,644	$ -	$ 2,621,427	$2,945,532	$ 5,445,966	$ 2,580,105
47	1855	Services (Overhead & Underground)	$ 1,708,373	$ 51,711	$ -	$ 1,760,084	$ 380,993	$ 36,565	$ -	$ 417,559	$1,342,525	$ 1,734,228	$ 399,276
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 67,893	$ 9,005	$ -	$ 76,898	$121,977	$ 198,875	$ 72,395
47	1860	Meters (Smart Meters)	$ 1,028,587	$ 104,039	$ -	$ 1,132,626	$ 516,858	$ 74,798	$ -	$ 591,656	$540,970	$ 1,080,606	$ 554,257
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 25,171	$ 78,086	$ -	$ 103,257	$ 20,405	$ 8,875	$ -	$ 29,280	$73,977	$ 64,214	$ 24,842
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ 4,546	$ -	$ 4,546	$ -	$ 455	$ -	$ 455	$4,091	$ 2,273	$ 227
8	1960	Miscellaneous Equipment	$ 38,000	$ 34,621	$ -	$ 72,621	$ 6,332	$ 11,062	$ -	$ 17,394	$55,227	$ 55,311	$ 11,863
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 2,984,566	-$ 95,802	$ -	-$ 3,080,368	-$ 276,210	-$ 83,852	$ -	-$ 360,062	-$2,720,305	-$ 3,032,467	-$ 318,136
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
		Sub-Total	**$ 20,194,833**	**$ 1,613,092**	**-$ 64,958**	**$ 21,742,967**	**$ 11,012,621**	**$ 337,539**	**$ -**	**$ 11,350,160**	**$ 10,392,807**	**$ 20,968,900**	**$ 11,181,390**
		Less Socialized Renewable Energy Generation Investments (input as negative)		0		$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets *(input as negative)*	0	0	0	$ -	0	0	0	$ -	$ -	$ -	$ -
		Total PP&E	**$ 20,194,833**	**$ 1,613,092**	**-$ 64,958**	**$ 21,742,967**	**$ 11,012,621**	**$ 337,539**	**$ -**	**$ 11,350,160**	**$ 10,392,807**	$ 20,968,900	$ 11,181,390
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 9,787,510
		Total						**$ 337,539**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 83,852
			Net Depreciation	$ 421,391

Table 9 – 2019 Continuity schedule

Year **2019**

			Cost				Accumulated Depreciation				
CCA Class [2]	**OEB Account** [3]	**Description** [3]	**Opening Balance** [8]	**Additions** [4]	**Disposals** [6]	**Closing Balance**	**Opening Balance** [8]	**Additions**	**Disposals** [6]	**Closing Balance**	**Net Book Value**
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 556,125	$ -	$ -	$ 556,125	$0
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$11,520
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 65,451	$ 2,578	$ -	$ 68,029	$145,697
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1830	Poles, Towers & Fixtures	$ 5,793,359	$ 380,126	-$ 96,465	$ 6,077,020	$ 3,337,650	$ 67,327	$ -	$ 3,404,977	$2,672,043
47	1835	Overhead Conductors & Devices	$ 2,498,733	$ 295,976	$ -	$ 2,794,709	$ 620,339	$ 56,998	$ -	$ 677,338	$2,117,371
47	1840	Underground Conduit	$ 4,397,585	$ 956,958	$ -	$ 5,354,543	$ 2,600,492	$ 55,246	$ -	$ 2,655,738	$2,698,805
47	1845	Underground Conductors & Devices	$ 2,513,319	$ 863,536	$ -	$ 3,376,855	$ 775,498	$ 95,588	$ -	$ 871,086	$2,505,769
47	1850	Line Transformers	$ 5,566,959	$ 655,471	-$ 9,810	$ 6,212,620	$ 2,621,427	$ 110,098	$ -	$ 2,731,524	$3,481,095
47	1855	Services (Overhead & Underground)	$ 1,760,084	$ 100,322	$ -	$ 1,860,405	$ 417,559	$ 38,181	$ -	$ 455,740	$1,404,666
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 76,898	$ 9,005	$ -	$ 85,903	$112,972
47	1860	Meters (Smart Meters)	$ 1,132,626	$ 148,241	$ -	$ 1,280,867	$ 591,656	$ 83,207	$ -	$ 674,863	$606,004
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 103,257	$ 95,984	$ -	$ 199,241	$ 29,280	$ 26,273	$ -	$ 55,552	$143,689
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 455	$ 909	$ -	$ 1,364	$3,182
8	1960	Miscellaneous Equipment	$ 72,621	$ 35,031	$ -	$ 107,652	$ 17,394	$ 18,030	$ -	$ 35,424	$72,228
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
47	2440	Deferred Revenue[5]	-$ 3,080,368	-$ 560,870	$ -	-$ 3,641,237	-$ 360,062	-$ 92,096	$ -	-$ 452,158	-$3,189,079
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
		Sub-Total	**$ 21,742,967**	**$ 2,970,775**	**-$ 106,275**	**$ 24,607,467**	**$ 11,350,160**	**$ 471,344**	**$ -**	**$ 11,821,504**	**$ 12,785,963**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -		0		$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)	0	0	0	$ -	0	0	0	$ -	$ -
		Total PP&E	**$ 21,742,967**	**$ 2,970,775**	**-$ 106,275**	**$ 24,607,467**	**$ 11,350,160**	**$ 471,344**	**$ -**	**$ 11,821,504**	**$ 12,785,963**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**$ 471,344**			

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 92,096
			Net Depreciation	$ 563,440

Table 10 – 2020 Continuity schedule

Year 2020

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ -	$ -	$ 556,125	$ 556,125	$ -	$ -	$ 556,125	$0	$ 556,125	$ 556,125
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ 65,512	$ -	$ 65,512	$ -	$ 2,184	$ -	$ 2,184	$63,329	$ 32,756	$ 1,092
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 68,029	$ 2,578	$ -	$ 70,608	$143,119	$ 213,726	$ 69,318
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 6,077,020	$ 339,260	-$ 111,231	$ 6,305,050	$ 3,404,977	$ 74,930	-$ 111,231	$ 3,368,676	$2,936,374	$ 6,191,035	$ 3,386,827
47	1835	Overhead Conductors & Devices	$ 2,794,709	$ 355,453	-$ 26,371	$ 3,123,791	$ 677,338	$ 64,463	$ -	$ 741,800	$2,381,990	$ 2,959,250	$ 709,569
47	1840	Underground Conduit	$ 5,354,543	$ 645,274	$ -	$ 5,999,817	$ 2,655,738	$ 71,268	$ -	$ 2,727,006	$3,272,811	$ 5,677,180	$ 2,691,372
47	1845	Underground Conductors & Devices	$ 3,376,855	$ 343,827	$ -	$ 3,720,683	$ 871,086	$ 115,711	$ -	$ 986,797	$2,733,886	$ 3,548,769	$ 928,941
47	1850	Line Transformers	$ 6,212,620	$ 322,453	-$ 8,636	$ 6,526,437	$ 2,731,524	$ 122,340	$ -	$ 2,853,864	$3,672,573	$ 6,369,528	$ 2,792,694
47	1855	Services (Overhead & Underground)	$ 1,860,405	$ 157,785	$ -	$ 2,018,190	$ 455,740	$ 40,923	$ -	$ 496,663	$1,521,527	$ 1,939,298	$ 476,201
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 85,903	$ 9,005	$ -	$ 94,908	$103,967	$ 198,875	$ 90,405
47	1860	Meters (Smart Meters)	$ 1,280,867	$ 151,526	$ -	$ 1,432,393	$ 674,863	$ 93,199	$ -	$ 768,062	$664,331	$ 1,356,630	$ 721,462
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 199,241	$ 32,000	$ -	$ 231,241	$ 55,552	$ 39,071	$ -	$ 94,623	$136,618	$ 215,241	$ 75,088
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 1,364	$ 909	$ -	$ 2,273	$2,273	$ 4,546	$ 1,818
8	1960	Miscellaneous Equipment	$ 107,652	$ 49,044	$ -	$ 156,696	$ 35,424	$ 26,441	$ -	$ 61,865	$94,830	$ 132,174	$ 48,645
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 3,641,237	-$ 419,054	$ -	-$ 4,060,291	-$ 452,158	-$ 104,345	$ -	-$ 556,503	-$3,503,788	-$ 3,850,764	-$ 504,331
	2205	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
		Sub-Total	**$ 24,607,467**	**$ 2,043,081**	**-$ 146,238**	**$ 26,504,309**	**$ 11,821,504**	**$ 558,676**	**-$ 111,231**	**$ 12,268,949**	**$ 14,235,361**	**$ 25,555,888**	**$ 12,045,226**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets ***(input as negative)***	0	0	0	$ -	0	0		$ -	$ -	$ -	$ -
		Total PP&E	**$ 24,607,467**	**$ 2,043,081**	**-$ 146,238**	**$ 26,504,309**	**$ 11,821,504**	**$ 558,676**	**-$ 111,231**	**$ 12,268,949**	**$ 14,235,361**	$ 25,555,888	$ 12,045,226
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 13,510,662
		Total						**$ 558,676**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 104,345
			Net Depreciation	$ 663,021

Table 11 – 2021 Continuity schedule

Year **2021**

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 556,125	$ 207,724	$ -	$ 763,849	$ 556,125	$ 126,279	$ -	$ 682,404	$81,445	$ 659,987	$ 619,264
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ 65,512	$ 87,698	$ -	$ 153,210	$ 2,184	$ 7,291	$ -	$ 9,474	$143,736	$ 109,361	$ 5,829
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 70,608	$ 2,578	$ -	$ 73,186	$140,540	$ 213,726	$ 71,897
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 6,305,050	$ 250,135	-$ 56,706	$ 6,498,479	$ 3,368,676	$ 80,415	-$ 56,706	$ 3,392,385	$3,106,094	$ 6,401,764	$ 3,380,530
47	1835	Overhead Conductors & Devices	$ 3,123,791	$ 197,793	-$ 9,176	$ 3,312,408	$ 741,800	$ 70,802	-$ 9,176	$ 803,427	$2,508,982	$ 3,218,100	$ 772,614
47	1840	Underground Conduit	$ 5,999,817	$ 442,053	$ -	$ 6,441,869	$ 2,727,006	$ 82,141	$ -	$ 2,809,147	$3,632,723	$ 6,220,843	$ 2,768,076
47	1845	Underground Conductors & Devices	$ 3,720,683	$ 163,723	$ -	$ 3,884,406	$ 986,797	$ 124,170	$ -	$ 1,110,967	$2,773,439	$ 3,802,544	$ 1,048,882
47	1850	Line Transformers	$ 6,526,437	$ 361,404	-$ 7,112	$ 6,880,729	$ 2,853,864	$ 130,870	-$ 7,112	$ 2,977,622	$3,903,107	$ 6,703,583	$ 2,915,743
47	1855	Services (Overhead & Underground)	$ 2,018,190	$ 211,310	$ -	$ 2,229,501	$ 496,663	$ 44,845	$ -	$ 541,508	$1,687,993	$ 2,123,845	$ 519,085
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 94,908	$ 9,005	$ -	$ 103,913	$94,962	$ 198,875	$ 99,410
47	1860	Meters (Smart Meters)	$ 1,432,393	$ 137,536	$ -	$ 1,569,929	$ 768,062	$ 102,835	$ -	$ 870,897	$699,032	$ 1,501,161	$ 819,479
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 231,241	$ 2,650	-$ 207,723	$ 26,168	$ 94,623	$ 1,256	-$ 85,000	$ 10,880	$15,288	$ 128,704	$ 52,752
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 2,273	$ 909	$ -	$ 3,182	$1,364	$ 4,546	$ 2,727
8	1960	Miscellaneous Equipment	$ 156,696	$ 36,028	$ -	$ 192,724	$ 61,865	$ 34,948	$ -	$ 96,813	$95,911	$ 174,710	$ 79,339
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 4,060,291	-$ 606,302	$ -	-$ 4,666,594	-$ 556,503	-$ 117,162	$ -	-$ 673,665	-$3,992,928	-$ 4,363,442	-$ 615,084
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
		Sub-Total	**$ 26,504,309**	**$ 1,491,753**	**-$ 280,717**	**$ 27,715,346**	**$ 12,268,949**	**$ 701,182**	**-$ 157,993**	**$ 12,812,138**	**$ 14,903,208**	**$ 27,109,828**	**$ 12,540,543**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -	$ -	$ -
		Total PP&E	**$ 26,504,309**	**$ 1,491,753**	**-$ 280,717**	**$ 27,715,346**	**$ 12,268,949**	**$ 701,182**	**-$ 157,993**	**$ 12,812,138**	**$ 14,903,208**	$ 27,109,828	$ 12,540,543
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 14,569,284
		Total						**$ 701,182**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 117,162
			Net Depreciation	$ 818,344

Table 12 –2022 Continuity schedule

Year 2022

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 763,849	$ 18,080	$ -	$ 781,929	$ 682,404	$ 43,442		$ 725,846	$56,082	$ 772,889	$ 704,125
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -		$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ 153,210	$ -	$ -	$ 153,210	$ 9,474	$ 10,214	$ -	$ 19,689	$133,522	$ 153,210	$ 14,582
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 73,186	$ 2,578	$ -	$ 75,764	$137,962	$ 213,726	$ 74,475
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 6,498,479	$ 346,727	-$ 76,335	$ 6,768,871	$ 3,392,385	$ 86,384	-$ 76,335	$ 3,402,433	$3,366,438	$ 6,633,675	$ 3,397,409
47	1835	Overhead Conductors & Devices	$ 3,312,408	$ 378,353	-$ 4,585	$ 3,686,177	$ 803,427	$ 77,404	-$ 4,585	$ 876,246	$2,809,931	$ 3,499,292	$ 839,836
47	1840	Underground Conduit	$ 6,441,869	$ 88,140	$ -	$ 6,530,009	$ 2,809,147	$ 87,443	$ -	$ 2,896,590	$3,633,420	$ 6,485,939	$ 2,852,868
47	1845	Underground Conductors & Devices	$ 3,884,406	$ 144,977	$ -	$ 4,029,383	$ 1,110,967	$ 129,315	$ -	$ 1,240,282	$2,789,101	$ 3,956,894	$ 1,175,624
47	1850	Line Transformers	$ 6,880,729	$ 456,974	$ -	$ 7,337,703	$ 2,977,622	$ 141,100	$ -	$ 3,118,721	$4,218,982	$ 7,109,216	$ 3,048,172
47	1855	Services (Overhead & Underground)	$ 2,229,501	$ 260,171	$ -	$ 2,489,672	$ 541,508	$ 49,854	$ -	$ 591,362	$1,898,310	$ 2,359,586	$ 566,435
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 103,913	$ 9,005	$ -	$ 112,918	$85,957	$ 198,875	$ 108,415
47	1860	Meters (Smart Meters)	$ 1,569,929	$ 103,673	$ -	$ 1,673,602	$ 870,897	$ 110,875	$ -	$ 981,772	$691,830	$ 1,621,765	$ 926,334
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 26,168	$ 2,236	$ -	$ 28,404	$ 10,880	$ 1,480		$ 12,360	$16,044	$ 27,286	$ 11,620
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 3,182	$ 909		$ 4,091	$455	$ 4,546	$ 3,636
8	1960	Miscellaneous Equipment	$ 192,724	$ 13,847	$ -	$ 206,571	$ 96,813	$ 39,935		$ 136,748	$69,823	$ 199,648	$ 116,781
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 4,666,594	-$ 528,839	$ -	-$ 5,195,433	-$ 673,665	-$ 131,351		-$ 805,017	-$4,390,416	-$ 4,931,013	-$ 739,341
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	0	$ -	$0	$ -	$ -
		Sub-Total	**$ 27,715,346**	**$ 1,284,339**	**-$ 80,920**	**$ 28,918,765**	**$ 12,812,138**	**$ 658,587**	**-$ 80,920**	**$ 13,389,805**	**$ 15,528,960**	**$ 28,317,055**	**$ 13,100,971**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		***Less Other Non Rate-Regulated Utility Assets** (input as negative)*				$ -				$ -	$ -	$ -	$ -
		Total PP&E	**$ 27,715,346**	**$ 1,284,339**	**-$ 80,920**	**$ 28,918,765**	**$ 12,812,138**	**$ 658,587**	**-$ 80,920**	**$ 13,389,805**	**$ 15,528,960**	$ 28,317,055	$ 13,100,971
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 15,216,084
		Total						**$ 658,587**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 131,351
			Net Depreciation	$ 789,938

Table 13 – 2023 Continuity schedule

Year 2023

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value	Avg Gross Balance	Avg Acc Dep
			Opening Balance [8]	Additions [4]	Disposals [6]	Closing Balance	Opening Balance [8]	Additions	Disposals [6]	Closing Balance			
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 781,929	$ 6,027	$ -	$ 787,956	$ 725,846	$ 45,943		$ 771,789	$16,166	$ 784,942	$ 748,818
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -		$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ 153,210	$ -	$ -	$ 153,210	$ 19,689	$ 10,214	$ -	$ 29,903	$123,308	$ 153,210	$ 24,796
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 75,764	$ 2,578	$ -	$ 78,343	$135,383	$ 213,726	$ 77,054
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 6,768,871	$ 259,936	-$ 41,439	$ 6,987,368	$ 3,402,433	$ 92,450	-$ 54,525	$ 3,440,359	$3,547,009	$ 6,878,119	$ 3,421,396
47	1835	Overhead Conductors & Devices	$ 3,686,177	$ 252,705	-$ 5,441	$ 3,933,441	$ 876,246	$ 84,635	-$ 4,813	$ 956,067	$2,977,374	$ 3,809,809	$ 916,156
47	1840	Underground Conduit	$ 6,530,009	$ 362,319	$ -	$ 6,892,329	$ 2,896,590	$ 91,948	$ -	$ 2,988,538	$3,903,791	$ 6,711,169	$ 2,942,564
47	1845	Underground Conductors & Devices	$ 4,029,383	$ 448,635	$ -	$ 4,478,018	$ 1,240,282	$ 139,209	$ -	$ 1,379,490	$3,098,527	$ 4,253,700	$ 1,309,886
47	1850	Line Transformers	$ 7,337,703	$ 268,767	-$ 14,224	$ 7,592,246	$ 3,118,721	$ 150,171	$ -	$ 3,268,893	$4,323,354	$ 7,464,975	$ 3,193,807
47	1855	Services (Overhead & Underground)	$ 2,489,672	$ 818,776	$ -	$ 3,308,448	$ 591,362	$ 61,318	$ -	$ 652,680	$2,655,768	$ 2,899,060	$ 622,021
47	1860	Meters	$ 198,875		$ -	$ 198,875	$ 112,918	$ 9,005	$ -	$ 121,923	$76,952	$ 198,875	$ 117,421
47	1860	Meters (Smart Meters)	$ 1,673,602	$ 165,172	$ -	$ 1,838,774	$ 981,772	$ 119,836	$ -	$ 1,101,608	$737,166	$ 1,756,188	$ 1,041,690
N/A	1905	Land	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 28,404	$ -	$ -	$ 28,404	$ 12,360	$ 1,704	$ -	$ 14,063	$14,340	$ 28,404	$ 13,212
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 4,091	$ 909	$ -	$ 5,000	-$454	$ 4,546	$ 4,545
8	1960	Miscellaneous Equipment	$ 206,571	$ 25,575	$ -	$ 232,146	$ 136,748	$ 43,878	$ -	$ 180,626	$51,520	$ 219,359	$ 158,687
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 5,195,433	-$ 425,653	$ -	-$ 5,621,086	-$ 805,017	-$ 143,283	$ -	-$ 948,300	-$4,672,786	-$ 5,408,259	-$ 876,658
	2005	Property Under Finance Lease[7]	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	0	$ -	$0	$ -	$ -
		Sub-Total	**$ 28,918,765**	**$ 2,182,260**	**-$ 61,104**	**$ 31,039,921**	**$ 13,389,805**	**$ 710,515**	**-$ 59,338**	**$ 14,040,982**	**$ 16,998,939**	**$ 29,979,343**	**$ 13,715,393**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -	$ -	$ -
		Total PP&E	**$ 28,918,765**	**$ 2,182,260**	**-$ 61,104**	**$ 31,039,921**	**$ 13,389,805**	**$ 710,515**	**-$ 59,338**	**$ 14,040,982**	**$ 16,998,939**	$ 29,979,343	$ 13,715,393
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]											$ 16,263,950
		Total						**$ 710,515**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 143,283
			Net Depreciation	$ 853,797

Table 14 – 2024 Continuity schedule

Year: 2024

CCA Class [2]	OEB Account [3]	Description [3]	Cost: Opening Balance [8]	Cost: Additions [4]	Cost: Disposals [6]	Cost: Closing Balance	Accumulated Depreciation: Opening Balance [8]	Accumulated Depreciation: Additions	Accumulated Depreciation: Disposals [6]	Accumulated Depreciation: Closing Balance	Net Book Value	Avg Gross Balance	Avg Acc Dep
	1609	Capital Contributions Paid	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
12	1611	Computer Software (Formally known as Account 1925)	$ 787,956	$ 20,000	$ -	$ 807,956	$ 771,789	$ 27,570	$ -	$ 799,359	$8,596	$ 797,956	$ 785,574
CEC	1612	Land Rights (Formally known as Account 1906)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
N/A	1805	Land	$ 11,520	$ -	$ -	$ 11,520	$ -	$ -	$ -	$ -	$11,520	$ 11,520	$ -
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ 153,210	$ -	$ -	$ 153,210	$ 29,903	$ 10,214	$ -	$ 40,117	$113,094	$ 153,210	$ 35,010
47	1820	Distribution Station Equipment <50 kV	$ 213,726	$ -	$ -	$ 213,726	$ 78,343	$ 2,578	$ -	$ 80,921	$132,805	$ 213,726	$ 79,632
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 6,987,368	$ 326,351	-$ 74,154	$ 7,239,564	$ 3,440,359	$ 98,313	-$ 74,154	$ 3,464,518	$3,775,047	$ 7,113,466	$ 3,452,438
47	1835	Overhead Conductors & Devices	$ 3,933,441	$ 392,258	-$ 2,476	$ 4,323,223	$ 956,067	$ 92,025	-$ 2,476	$ 1,045,616	$3,277,607	$ 4,128,332	$ 1,000,842
47	1840	Underground Conduit	$ 6,892,329	$ 588,448	$ -	$ 7,480,777	$ 2,988,538	$ 101,455	$ -	$ 3,089,993	$4,390,784	$ 7,186,553	$ 3,039,265
47	1845	Underground Conductors & Devices	$ 4,478,018	$ 246,370	$ -	$ 4,724,388	$ 1,379,490	$ 150,792	$ -	$ 1,530,282	$3,194,105	$ 4,601,203	$ 1,454,886
47	1850	Line Transformers	$ 7,592,246	$ 600,289	-$ 6,604	$ 8,185,931	$ 3,268,893	$ 161,034	-$ 6,604	$ 3,423,323	$4,762,608	$ 7,889,089	$ 3,346,108
47	1855	Services (Overhead & Underground)	$ 3,308,448	$ 395,257	$ -	$ 3,703,705	$ 652,680	$ 74,217	$ -	$ 726,897	$2,976,808	$ 3,506,076	$ 689,789
47	1860	Meters	$ 198,875	$ -	$ -	$ 198,875	$ 121,923	$ 9,005	$ -	$ 130,928	$67,947	$ 198,875	$ 126,426
47	1860	Meters (Smart Meters)	$ 1,838,774	$ 39,492	$ -	$ 1,878,266	$ 1,101,608	$ 126,659	$ -	$ 1,228,267	$649,999	$ 1,858,520	$ 1,164,937
N/A	1905	Land	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1908	Buildings & Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
50	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ 28,404	$ -	$ -	$ 28,404	$ 14,063	$ 937	$ -	$ 15,000	$13,404	$ 28,404	$ 14,532
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ 4,546	$ -	$ -	$ 4,546	$ 5,000	-$ 454	$ -	$ 4,546	$0	$ 4,546	$ 4,773
8	1960	Miscellaneous Equipment	$ 232,146	$ 55,000	$ -	$ 287,146	$ 180,626	$ 51,935	$ -	$ 232,561	$54,585	$ 259,646	$ 206,593
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1980	System Supervisor Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0	$ -	$ -
47	2440	Deferred Revenue [5]	-$ 5,621,086	-$ 586,772	$ -	-$ 6,207,858	-$ 948,300	-$ 155,938	$ -	-$ 1,104,238	-$5,103,620	-$ 5,914,472	-$ 1,026,269
	2005	Property Under Finance Lease [7]	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$0	$ -	$ -
	2055	WIP	$ -	$ -	$ -	$ -	$ -	$ -	0	$ -	$0	$ -	$ -
		Sub-Total	**$ 31,039,921**	**$ 2,076,693**	**-$ 83,234**	**$ 33,033,380**	**$ 14,040,982**	**$ 750,343**	**-$ 83,234**	**$ 14,708,090**	**$ 18,325,289**	**$ 32,036,650**	**$ 14,374,536**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -	$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -	$ -	$ -
		Total PP&E	**$ 31,039,921**	**$ 2,076,693**	**-$ 83,234**	**$ 33,033,380**	**$ 14,040,982**	**$ 750,343**	**-$ 83,234**	**$ 14,708,090**	**$ 18,325,289**	$ 32,036,650	$ 14,374,536
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable [6]											$ 17,662,114
		Total						**$ 750,343**					

			Less: *Fully Allocated Depreciation*	
10		Transportation	Transportation	$ -
8		Stores Equipment	Stores Equipment	$ -
47		Deferred Revenue	Deferred Revenue	-$ 155,938
			Net Depreciation	$ 906,281

2.2.2 Depreciation Expenses

In accordance with the July 17, 2012, letter from the Board on Regulatory accounting policy direction regarding changes to depreciation expense and capitalization policies and as such, THI has adopted the Kinetrics proposed useful lives and componentization on January 1, 2013. The revised methodology was included in THI's 2013 Cost of Service rate application.

Continuity Statements of the historical and forecasted depreciation expenses are presented on the next page and are filed in Excel format along with this application.

THI confirms that it has applied the half-year rule to compute the net book value of Property, Plant and Equipment, and General Plant in the rate base.[1] Under the half-year rule, acquisitions and investments made during the year are amortized, assuming they entered service at the year's mid-point.

THI's Depreciation rates and Capitalization Policy are presented below.

2.2.9 Capitalization

Capitalization Policy

THI's capitalization policy has not changed since its last Cost of Service.

All expenditures by the Corporation are classified as either capital or operating expenditures. The intention is to allocate costs across accounting periods to match those costs with current and future economic benefits appropriately. The amount to be capitalized is the cost to acquire or construct a capital asset, including any ancillary costs incurred to place a capital asset into its intended state of operation. THI does not currently capitalize interest on funds used for construction.

THI's adherence to the capitalization policy can be described as follows.

- ✓ Assets that are intended to be used on-going and expected to provide future economic benefit (generally considered to be greater than one year) will be capitalized.
- ✓ General Plant items with an estimated useful life greater than one year and valued at greater than $500 will be capitalized.
- ✓ Expenditures that create a physical betterment or improvement of the asset (i.e., there is a significant increase in the physical output or service capacity, or the useful life of the capital asset is extended) will be capitalized.
- ✓ With respect to vehicles, please note that THI does not own any vehicles.
- ✓ Maintenance services are contracted out.

[1] MFR – Identification of historical depreciation practice and proposal for test year. Variances from half- year rule.

Indirect overhead costs, such as general and administrative costs that are not directly attributable to an asset, are not, nor have they ever been capitalized.

Burden Rates

THI's confirms that it has no policy has not changed since its last Cost of Service.

Table 15 - Depreciation Rates

Account	Description	As of
1611	Computer Software (Formally known as Account 1925)	5
1820	Distribution Station Equipment <50 kV	55
1830	Poles, Towers & Fixtures	40
1835	Overhead Conductors & Devices	60
1845	Underground Conductors & Devices	35
1850	Line Transformers	40
1855	Services (Overhead & Underground)	40
1860	Meters	25
1860	Meters (Smart Meters)	15
1915	Office Furniture & Equipment (10 years)	10
1920	Computer Equipment - Hardware	5
1935	Stores Equipment	10
1940	Tools, Shop & Garage Equipment	10
1945	Measurement & Testing Equipment	10
1995	Contributions & Grants	40

2.3. DERIVATION OF THE WORKING CAPITAL ALLOWANCE

THI's working capital allowance was determined by taking the sum of Cost of Power and controllable expenses (i.e., Operations, Maintenance, Billing and Collecting, Community Relations, Administration and General) and applying the OEB's allowance of 7.5%. The table below shows THI's calculations in determining its Allowance for Working Capital. The increase in OM&A is discussed in detail in exhibit 4. Other components of the Working Capital Allowance are discussed below. The Working Capital Allowance has decreased by $746,023 over the 2013 Board Approved. Total expenses for working capital is forecasted to increase by $2,688,349 between the 2013 Board Approved and the Test Year 2024. This increase is offset by the decrease in WCA from 12% to 7.5%.

Table 16 – Trend in Working Capital Allowance

Expenses for Working Capital	Last Board Approved	2013	2014	2015	2016	2017	2018	2019
Eligible Distribution Expenses:								
3500- Operation	$882,270	$1,190,472	$900,612	$644,836	$498,266	$571,936	$723,170	$644,867
3550- Maintenance	$275,312	$167,665	$118,102	$144,270	$178,960	$110,751	$234,868	$210,034
3650-Billing and Collecting	$613,505	$643,690	$565,204	$586,908	$604,067	$630,301	$658,554	$740,168
3700-Community Relations	$900	$0	$0	$0	$530	$150	$0	$0
3800-Administrative Expenses	$743,095	$976,737	$907,243	$1,124,873	$1,443,182	$1,381,923	$1,315,486	$1,278,057
6105-Taxes other than Income Taxes		$0	$0	$0	$0	$0	$0	$0
Total Eligible Distribution Expenses	$2,515,082	$2,978,564	$2,491,161	$2,500,887	$2,725,005	$2,695,060	$2,932,078	$2,873,126
3350-Power Supply Expenses	$18,543,794	$20,171,254	$22,146,038	$23,764,696	$26,120,389	$23,593,380	$21,279,721	$20,335,413
Total Expenses for Working Capital	$21,058,876	$23,149,818	$24,637,199	$26,265,583	$28,845,394	$26,288,440	$24,211,799	$23,208,539
Working Capital factor	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Total Working Capital	**$2,527,065**	**$2,777,978**	**$2,956,464**	**$3,151,870**	**$3,461,447**	**$3,154,613**	**$2,905,416**	**$2,785,025**

Expenses for Working Capital	2020	2021	2022	2023	2024	Variance from Last BA
Eligible Distribution Expenses:						
3500- Operation	$600,165	$545,201	$558,349	$503,729	$525,582	-$356,688
3550- Maintenance	$258,503	$189,919	$178,192	$203,359	$209,849	-$65,463
3650-Billing and Collecting	$720,741	$762,553	$802,621	$800,229	$813,409	$199,904
3700-Community Relations	$0	$0	$0	$0	$0	-$900
3800-Administrative Expenses	$1,263,432	$1,385,362	$1,367,591	$1,583,612	$1,723,389	$980,294
6105-Taxes other than Income Taxes	$0	$0	$0	$5,200	$5,500	$0
Total Eligible Distribution Expenses	$2,842,841	$2,883,036	$2,906,752	$3,096,129	$3,277,729	$762,647
3350-Power Supply Expenses	$23,277,993	$21,006,471	$21,974,580	$21,003,127	$20,469,496	$1,925,702
Total Expenses for Working Capital	$26,120,834	$23,889,506	$24,881,332	$24,099,255	$23,747,225	$2,688,349
Working Capital factor	12.00%	12.00%	12.00%	12.00%	7.50%	
Total Working Capital	**$3,134,500**	**$2,866,741**	**$2,985,760**	**$2,891,911**	**$1,781,042**	**-$746,023**

2.3.1 Deemed Allowance vs Lead Lag

THI has used the 7.5% Allowance Approach to calculate its Allowance for Working Capital. This was done per the letter issued by the Board on June 03, 2015, for a rate of 7.5%

THI is not proposing to use a lead-lag study to determine its Working Capital Allowance and has chosen to follow the Board's June 3, 2015, letter, which provided two options for the calculation of the allowance for working capital:

(1) The 7.5% allowance approach; or

(2) The filing of a lead/lag study.

THI notes that it has not previously been directed by the Board to undertake a lead/lag study.

Increased Distribution Expenses

THI's 2024 Test Year operating costs are projected to be $3,272,229, representing an increase of $757,147 or a CAGR of 2.4% and average % annual increase of 2.7% from its 2013 Board Approved costs. Details are introduced in Table 1 below. Details are provided in Exhibit 4.

Table 17 – 2024 OM&A vs 2013 Board Approved OM&A

Particulars	Last Board Approved	2024	Variance $
Operations	$882,270	$525,582	-$356,688
Maintenance	$275,312	$209,849	-$65,463
Subtotal	**$1,157,582**	**$735,431**	**-$422,151**
Billing and collecting	$613,505	$813,409	$199,904
Community Relations	$900	$0	-$900
Administrative and General	$743,095	$1,723,389	$980,294
Subtotal	**$1,357,500**	**$2,536,797**	**$1,179,297**
Total	**$2,515,082**	**$3,272,229**	**$757,147**
CAGR (Test Year vs Last Rebasing Year)			2.4%
Average % Increase (Test Year vs Last Rebasing Year)			2.7%

2.3.1 Derivation of the Cost of Power

The components of THI's cost of power are summarized below and detailed in several tables illustrated over the following pages. THI confirms that it used the most up to date inputs and guidelines to determine its cost of power.

Table 18 – 2024 Cost of Power

Component	$
4705 -Power Purchased	$12,965,815
4707- Global Adjustment	$4,807,940
4708-Charges-WMS	$813,035
4714-Charges-NW	$1,934,458
4716-Charges-CN	$1,479,296
4730-RRRP	$252,944
4750-Charges-LV	$0
4751-IESO SME	$43,005
Misc A/R or A/P	-$1,826,996
TOTAL	**$20,469,496**

Commodity and Global Adjustment non-RPP (4705- Power Purchased and 4707 Global Adjustment)

THI attests that the Cost of Power is determined by the split between RPP and non-RPP customers based on actual data, using the most current RPP price and current UTR. THI calculated the cost of power for the 2022 Bridge Year and the 2023 Test Year based on the results of the load forecast discussed in detail in Exhibit 3.

The Commodity share of the Cost of Power is calculated in the same manner as has been previously approved by the OEB in THI's previous Cost of Service application and other applications.

The sale of energy is a flow-through revenue, and the cost of power is a flow-through expense. Energy sales and the cost of power expense are presented in the table below. THI records no profit or loss from the flow-through energy revenues and costs. Any temporary variances are included in the RSVA account balances.

Table 19 – 2023 Commodity Expense

		2024 Test Year	RPP		2024 Test Year	non-RPP		Total
Electricity Commodity	**Units**	Volume	Rate	$	Volume	Rate	$	$
Class per Load Forecast				-				
Residential	kWh	61,627,888		6,759,865				6,759,865
GS<50	kWh	23,022,735		2,230,061				2,230,061
GS 50-499kW	kWh	51,946,339		2,733,917				2,733,917
GS 500-1499kW	kWh	19,312,053		613,930				613,930
GS 1500-4999 kW	kWh	17,727,224		563,548				563,548
USL	kWh	331,791		36,845				36,845
Sentinel Lighting	kWh	71,581		7,949				7,949
Street Lighting	kWh	619,623		19,698				19,698
-		-		-				-
SUB-TOTAL		174,659,234		12,965,815	-		-	$ 12,965,815

Global Adjustment non-RPP	**Units**	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh			0			77,136	
GS<50	kWh			0			300,241	
GS 50-499kW	kWh			0			2,587,661	
GS 500-1499kW	kWh			0			958,922	
GS 1500-4999 kW	kWh			0			838,835	
USL	kWh			0			-	
Sentinel Lighting	kWh			0			-	
Street Lighting	kWh			0			45,146	
SUB-TOTAL				0			4,807,940	$ 4,807,940

Transmission Network and Connection Charges (4714-Charges-NW and 4716-Charges-CN)

Electricity distributors are charged for transmission costs at the wholesale level and subsequently pass these charges on to their distribution customers through the Retail Transmission Service Rates (RTSRs). For each distribution rate class, there are two RTSRs:

- RTSR Network charge - recovers the Uniform Transmission Rates (UTR) wholesale network service charge
- RTSR Connection charge - recovers the UTR wholesale line and transformation connection charges.

The table below summarizes the projected transmission network and connection expenses, applying the proposed rates to the 2023 load forecast kWh and kW volumes:

Table 20 - Transmission Network and Connection Expenses

Transmission - Network	**Units**	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh	63,750,342	0.0102	647,124	-	0.0102	-	
GS<50	kWh	23,815,634	0.0093	222,215	-	0.0093	-	
GS 50-499kW	kW	-	3.5913	-	162,219	3.5913	582,573	
GS 500-1499kW	kW	-	4.7059	-	57,274	4.7059	269,529	
GS 1500-4999 kW	kW	-	4.7059	-	42,760	4.7059	201,226	
USL	kWh	343,218	0.0093	3,202	-	0.0093	-	
Sentinel Lighting	kW	-	2.9640	-	195	3.5913	701	
Street Lighting	kW	-	2.9493	-	1,676	4.7059	7,886	
				-			-	
				-			-	
SUB-TOTAL				872,542			1,061,916	1,934,458

Transmission - Connection	**Units**	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh	63,750,342	0.0078	498,862	-	0.0078	-	
GS<50	kWh	23,815,634	0.0070	166,746	-	0.0070	-	
GS 50-499kW	kW	-	2.7035	-	162,219	2.7035	438,563	
GS 500-1499kW	kW	-	3.6844	-	57,274	3.6844	211,019	
GS 1500-4999 kW	kW	-	3.6844	-	42,760	3.6844	157,543	
USL	kWh	343,218	0.0070	2,403	-	0.0070	-	
Sentinel Lighting	kW	-	2.2396	-	195	2.2396	437	
Street Lighting	kW	-	2.2211		1,676	2.2211	3,722	
				-			-	
SUB-TOTAL				668,011			811,285	1,479,296

The transmission network charges, included in the Cost of Power for the Test Year 2023, are projected at $1,934,458, and the connection charges are projected at $1,479,296. The Rates are applied to the 2024 Load Forecast to determine the amount included in the Cost of Power.

Wholesale Market Service Charges & Capacity Based Recovery Charges (4708-Charges-WMS)

On December 17, 2019, the OEB released Decision and Order for the Wholesale Market Service (WMS) effective January 1, 2020. The Board's decision is summarized as follows:

- The WMS rate used by rate-regulated distributors to bill their customers shall be $0.0030 per kilowatt-hour, effective January 1, 2020.
- For Class B customers, a Capacity-based Recovery (CBR) component of $0.0004 per kilowatt-hour shall be added to the WMS rate for a total of $0.0034 per kilowatt-hour.
- For Class A customers, distributors shall bill the actual CBR costs to Class A customers in proportion to their contribution to the peak.

In compliance with this order, THI has applied the Board-approved rate of $0.0034/kWh to its' 2024 Load Forecast to include $740,765 for WMS and $72,270 in Class B CBR in its' Cost of Power projections as illustrated in the table below:

Table 21- Wholesale Market and Class A & B CBR

Wholesale Market Service	**Units**	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh	63,750,342	0.0041	261,376	-	0.0041	-	
GS<50	kWh	23,815,634	0.0041	97,644	-	0.0041	-	
GS 50-499kW	kWh	53,735,362	0.0041	220,315	-	0.0041	-	
GS 500-1499kW	kWh	19,977,157	0.0041	81,906	-	0.0041	-	
GS 1500-4999 kW	kWh	18,337,747	0.0041	75,185	-	0.0041	-	
USL	kWh	343,218	0.0041	1,407	-	0.0041	-	
Sentinel Lighting	kWh	74,046	0.0041	304	-	0.0041	-	
Street Lighting	kWh	640,962	0.0041	2,628	-	0.0041	-	
				-			-	
SUB-TOTAL				740,765			-	740,765

Class A CBR	**Units**	Volume	Rate	$	Volume	Rate[4]	$	Total
Class per Load Forecast								
Residential	kWh			-			-	
GS<50	kWh			-			-	
GS 50-499kW	kWh			-	-	0.00015	-	
GS 500-1499kW	kWh			-			-	
GS 1500-4999 kW	kWh			-			-	
USL	kWh			-			-	
Sentinel Lighting	kWh			-	-	0.00013	-	
Street Lighting				-	-		-	
				-	-		-	
SUB-TOTAL				-			-	-
Class B CBR	**Units**	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh	63,750,342	0.0004	25,500	-	0.0004	-	
GS<50	kWh	23,815,634	0.0004	9,526	-	0.0004	-	
GS 50-499kW	kWh	53,735,362	0.0004	21,494	-	0.0004	-	
GS 500-1499kW	kWh	19,977,157	0.0004	7,991	-	0.0004	-	
GS 1500-4999 kW	kWh	18,337,747	0.0004	7,335	-	0.0004	-	
USL	kWh	343,218	0.0004	137	-	0.0004	-	
Sentinel Lighting	kWh	74,046	0.0004	30	-	0.0004	-	
Street Lighting	kWh	640,962	0.0004	256	-	0.0004	-	
				-			-	
SUB-TOTAL				72,270			-	72,270

**DECISION AND ORDER EB-2020-0276 In the matter of regulatory charges effective January 1, 2021, for the Wholesale Market Services rate and the Rural or Remote Electricity Rate Protection charge issued December 10, 2020*

Rural or Remote Electricity Protection Rate (RRRP) Charges

On December 7, 2023, the OEB released Decision and Order for the Rural or Remote Electricity Protection Rate (RRRP) effective January 1, 2024[2]. The Board's decision is paraphrased as:

- …the RRRP charge increases to $0.0014 per kilowatt-hour from the current level of $0.0007 per kilowatt-hour.

In compliance with this order, THI has applied the Board Approved $0.0014 /kWh to its' 2024 Load Forecast to include $252,944 in its' Cost of Power as illustrated in the table below:

[2] EB-2023-0268 Decision & Order

Table 22 – Rural or Remote Electricity Rate Protection (4708-Charges-RRRP)

RRRP	Units	Volume	Rate	$	Volume	Rate	$	Total
Class per Load Forecast								
Residential	kWh	63,750,342	0.0014	89,250	-	0.0014	-	
GS<50	kWh	23,815,634	0.0014	33,342	-	0.0014	-	
GS 50-499kW	kWh	53,735,362	0.0014	75,230	-	0.0014	-	
GS 500-1499kW	kWh	19,977,157	0.0014	27,968	-	0.0014	-	
GS 1500-4999 kW	kWh	18,337,747	0.0014	25,673	-	0.0014	-	
USL	kWh	343,218	0.0014	481	-	0.0014	-	
Sentinel Lighting	kWh	74,046	0.0014	104	-	0.0014	-	
Street Lighting	kWh	640,962	0.0014	897	-	0.0014	-	
				-			-	
SUB-TOTAL				252,944			-	252,944

**DECISION AND ORDER EB-2020-0276 In the matter of regulatory charges effective January 1, 2021, for the Wholesale Market Services rate and the Rural or Remote Electricity Rate Protection charge issued December 10, 2020*

Smart Meter Charge

On October 11, 2022the Ontario Energy Board (OEB) approved the application by the Independent Electricity System Operator (IESO), in its capacity as the Smart Metering Entity (SME), for a smart metering charge (SMC) for the January 1, 2023 to December 31, 2027 period, for a new SMC of $0.42 per smart meter (Residential and General Service <50 kW) per month.

In compliance with this order, THI has applied the Board Approved rate of $0.42 per month for the forecasted Residential and General Service<50kW customers for Test Year 2024 and included the projected amount of $43,005 in its' Cost of Power as illustrated below:

Table 23 - Smart Meter Entity (4751-IESO SME)

Smart Meter Entity Charge		Customers	Rate	$	Customers	Rate	$	Total
Class per Load Forecast								
Residential		7,835	0.42	39,487			-	
GS<50		698	0.42	3,518			-	
				-			-	
SUB-TOTAL				43,005			-	43,005

2.4. DISTRIBUTION SYSTEM PLAN FOR SMALL UTILITIES

Per section 2.2.2.1 of the filing requirements, THI has filed its 2024 DSP as a stand-alone document, included in Appendix 2-C of this exhibit.

The DSP describes how THI's proposed capital investments for the 2023-2027 period are informed by its asset management process and continuous internal asset condition monitoring and assessment.

As a preamble to the DSP, THI's Capital Expenditure Checklist, shown in the table below, highlights areas of change that affect the utility's capital investment and overall plan.

Table 24 – Capital Expenditure Checklist

	Area to Address	Capital Investment Required?
	Capacity Issues	No
	Reliability	No
	Safety	No
	Service Quality	No
	Efficiency Assessment & Unit Cost Metrics	No
	Regional Planning	No
	Renewable Energy Generation / DER	No
	Major Asset Replacement	No
	New ACM	No
	Customer Growth	No
	Asset Condition	No
	Other	No

Capacity Issues

THI installed a new substation rated at 10 MVA / 13.3 MVA (ONAN/ ONAF) in 2017 while keeping the old substation to act as a backup in the event of an MS transformer failure and there not being supply capability from Hydro One. The new substation and redundancy plan addressed concerns relating to capacity issues; therefore, in this Capital Expenditure Plan period, the LDC is proposing no investment is required for capacity.

System Reliability & Performance

THI has consistently met all SAIDI and SAIFI requirements and indicators; therefore, no issues or capital investments are planned to address reliability targets.

Safety - Operational Effectiveness Indicators

THI has consistently met all safety requirements and indicators; therefore, no issues or capital investments are required to meet safety targets.

Efficiency Assessment & Unit Cost Metrics

THI has been assigned group 2 in terms of efficiency. Group 2 is rated as the second most efficient group.

THI will continue to replace distribution assets and has provision for replacement of assets based on its replacement process and Asset Condition Analysis as described in the Distribution System Plan.

Regional Planning

THI participates in Hydro One's regional needs and assessment planning meetings and reports. (Appendix 2-B) The Regional Planning[3] reports identified that there were voltage issues at the Tillsonburg Transformer Station, and that the transmission lines that supplied Tillsonburg TS were approaching capacity. Several options were considered and the 2020 "*Needs Assessment Report*" (Appendix 2-A) noted Hydro One had initiated projects to install capacitor banks at Tillsonburg TS (to address the voltage issues), and to change the TS supply circuits (to address the capacity issue). These upgrades have since be completed and there will not be any future capital contribution required from THI for these upgrades.

Since the report was presented, Tillsonburg has had a lot of industrial & commercial interest in bringing business to the Town. While currently there are no firm commitments it is expected that some small industrial as well as Volkswagon battery plan spin off manufacturing will materialize in the coming years. The capacity issue at the TS level has been noted to become at full capacity. As a result THI staff are currently in discussions with Hydro One Transmission to discuss the need for future upgrades. Therefore, it is likely that significant capital investments beyond current spending levels will be needed to increase the capacity for the growth should it materialize. THI does not expect that the increase in capacity for growth will materialize in this next IR term.

Renewable Energy Generation / DER

Applications from Renewable Generators Over 10 kW for Connection

The FIT-size generator connection application process for THI customers requires the involvement of HONI. The application process includes an internal review of applications. THI also requires approval from HONI for projects greater than 10kW for connection capacity, as HONI is the Host Distributor. The LDC is unaware of any upstream capacity constraints at the HONI-owned TS in Tillsonburg relating to the THI supply feeders.

[3] See Appendix 2-A Needs Assessment Report, 2-B Hydro One London Area Infrastructure Plan, and 2-C DSP for Regional Planning materials.

Net Metering

THI does not expect to reach the current available capacity for renewable generation in the near future (i.e., over the 5-year forecast horizon).

Smart Grid

At this time, there is no capital investment for Renewable Generation or DER included in THI's forecasted capital expenditure plan for 2024-2028.

Major Asset Replacement

No significant assets (e.g., substation) are scheduled for replacement due in the DSP period 2023-2027.

Advanced Capital Module (ACM)

For the Capital Plan period 2024-2028, THI is not requesting an ACM to fund a capital project.

Customer Growth

No customer growth outside of the usual trend will present capacity or loading issues during the 5-year DSP period of 2024-2028.

Capitalization of overhead

Indirect overhead costs, such as general and administrative costs that are not directly attributable to an asset, are not, nor have they ever been capitalized. (As such, Appendix 2-D is not applicable in this case).

Costs of eligible investments for distributors

THI attests that it has not included any costs or Investments to Connect Qualifying Generation Facilities in its capital costs or its Distribution System Plan be deleted

As such, details of any capital contributions made or forecast to be made to a transmitter concerning a Connection and Cost Recovery Agreement are not applicable in this case.

THI is not considering incremental conservation initiatives to defer or avoid future infrastructure projects as part of distribution system planning processes, nor is it planning on applying for funding through distribution rates to pursue activities such as energy efficiency programs, demand

response programs, energy storage programs, etc. Lastly, THI is not considering a generation facility.

New policy options for the funding of capital

THI is not proposing any unique or different approach to funding its capital expenditure

Addition of ICM assets to rate base

THI has not applied to recover investments through the OEB's Incremental Capital Module. And as such, THI does not need to reconcile the balance in account 1508 with rate base amounts.

2.4.3.1 Workforce Planning and Employee Compensation

THI is a virtual utility. It does not have staff, or incur Pension and OPEB costs.

As noted in Exhibit 4 of this Application, its workforce compensation costs including Pension and OPEBs are established in the Master Services Agreement[4] with the Town of Tillsonburg (the Town). Appendix 2-N Shared Services and Corporate Cost Allocation lists the costs THI pays the Town.

2.4.3.2 Shared Services and Corporate Cost Allocation

As noted above in section 2.4.3.1 THI is a virtual utility. The shared services costs THI pays to the Town are provided in Appendix 2-N.

In addition to these costs, THI has incurred Board of Director costs. These costs are listed in Table 25 below. Costs for 2013, 2014, 2017 to 2020, and 2024 are based on budget. Costs for 2015, 2016, 2021 to 2023 are based on actuals.

Table 25 – THI Board of Director Costs

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Board of Director Costs	$ 79,400	$ 76,500	$ 63,903	$ 67,367	$ 73,490	$ 65,249	$ 65,288	$ 64,220	$ 62,734	$ 59,565	$ 63,206	$ 77,699

[4] Exhibit 4, Appendix B

APPENDIX 2-A NEEDS ASSESSMENT REPORT

Hydro One Networks Inc.
483 Bay Street
Toronto, Ontario
M5G 2P5

NEEDS ASSESSMENT REPORT

Region: London Area

Date: May 29, 2020

Prepared by: London Area Study Team

Disclaimer

This Needs Assessment Report was prepared for the purpose of identifying potential needs in the London Area Region and to recommend which needs may require further assessment and/or regional coordination to develop a preferred plan. The results reported in this Needs Assessment are based on the input and information provided by the Study Team.

The Study Team participants, their respective affiliated organizations, and Hydro One Networks Inc. (collectively, "the Authors") shall not, under any circumstances whatsoever, be liable to each other, to any third party for whom the Needs Assessment Report was prepared ("the Intended Third Parties") or to any other third party reading or receiving the Needs Assessment Report ("the Other Third Parties"). The Authors, Intended Third Parties and Other Third Parties acknowledge and agree that: (a) the Authors make no representations or warranties (express, implied, statutory or otherwise) as to this document or its contents, including, without limitation, the accuracy or completeness of the information therein; (b) the Authors, Intended Third Parties and Other Third Parties and their respective employees, directors and agents (the "Representatives") shall be responsible for their respective use of the document and any conclusions derived from its contents; (c) and the Authors will not be liable for any damages resulting from or in any way related to the reliance on, acceptance or use of the document or its contents by the Authors, Intended Third Parties or Other Third Parties or their respective Representatives.

Executive Summary

REGION London Area Region ("the Region")

LEAD Hydro One Networks Inc.

START DATE: April 1, 2020 **COMPLETION DATE:** May 29, 2020

1. INTRODUCTION

The first cycle of Regional Planning for the London Area Region was completed in August 2017 with the publication of the Regional Infrastructure Plan (RIP) which provided a description of needs and recommendations of preferred wires plans to address near-term needs. This is the second cycle of Regional Planning and the purpose of this Needs Assessment is to identify any new need that emerged since the conclusion of previous London Area Regional Planning cycle.

2. REGIONAL ISSUE/TRIGGER

In accordance with the Regional Planning process as mandated by the Ontario Energy Board, the Regional Planning process should be triggered at least every five years. The first cycle of Regional Planning for the London Area Region began in February 2015 and given five years have elapsed, the second Regional Planning cycle for London Area was officially initiated in April 2020.

3. SCOPE OF NEEDS ASSESSMENT

The assessment's primary objective is to identify the electrical infrastructure needs over the ten-year study period and recommend which needs require further regional coordination.

4. & 5. LONDON AREA TRANSMISSION SYSTEM & INPUTS AND DATA

The Needs Assessment focuses on the adequacy of the 230 kV and 115 kV transmission system supplying the London Area. The Study Team representatives from Local Distribution Companies (LDCs), the Independent Electricity System Operator (IESO), and Hydro One provided input and relevant information for the London Area Region regarding capacity needs, reliability needs and replacement plan of major assets approaching end-of-life.

6. ASSESSMENT METHODOLOGY

The assessment methodology includes the review of planning information such as load forecast, conservation and demand management (CDM) forecast and available distributed generation (DG) information, any system reliability and operation issues, and major high voltage equipment identified to be at or near end of life. A technical assessment of needs was undertaken based on:

- Current and future station capacity and transmission adequacy; and
- Reliability needs and operational concerns.

7. RESULTS

I. Previously identified needs as part of first cycle of Regional Planning

A. Load Restoration: Ensure load interrupted can be restored in a reasonable time following simultaneous loss of M31W/M32W or loss of W36/W37

B. Voltage Constraint: Insufficient voltage at Tillsonburg TS 115 kV

C. Thermal Constraint: Thermal constraint on 115kV line W8T

D. Delivery Point Performance: Poor delivery point performance at Tillsonburg TS

II. Newly identified needs in the region

A. 230/115 kV Autotransformers

The 230/115 kV autotransformers (Buchanan TS and Karn TS) supplying the London Area are adequate over the study period for the loss of a single 230/115 kV autotransformer.

B. 230 kV Transmission Lines

The 230 kV circuits supplying the London Area are adequate over the study period for the loss of a single 230 kV circuit.

C. 115 kV Transmission Lines

The 115 kV circuits supplying the London Area are adequate over the study period for the loss of a single 115 kV circuit.

D. 230 kV and 115 kV Connection Facilities

Loading at Clarke TS will exceed its transformer 10-Day Limited Time Rating (LTR) in 2022 based on the net load forecast. Talbot TS T3/T4 is forecasted to exceed its 10-Day LTR throughout the study period. These needs were primarily driven by load transfer from Nelson TS during the construction period of the station refurbishment and voltage conversion project. London Hydro confirmed the load will be transferred back to Nelson TS over time and no additional transformation capacity is required at this time.

E. System Security and Restoration Review

Based on the latest load forecast, the loss of one element will not result in load interruption greater than 150 MW. The maximum load interrupted by configuration due to the loss of two elements is below the load loss limit of 600 MW by the end of the ten-year study period.

For the loss of two elements M31W/M32W on the 230 kV system, the load interrupted by configuration may exceed 150 MW. Hydro One Distribution estimated there is sufficient distribution transfer capability to address the restoration requirement for loss of M31W/M32W. For the loss of two elements W36/W37, the load interrupted by configuration may exceed 250 MW. As there are a number of projects currently underway which will affect loading at Talbot TS, it was recommended London Hydro and Hydro One to further examine this restoration need in Local Planning and devise an action plan for when all these projects are completed. For the loss of two elements W44LC/W45LS, the load interrupted by configuration may exceed 150 MW. There is sufficient capability on the existing system to restore interrupted within the targeted time period.

F. Aging Infrastructure and Replacement Plan of Major Equipment

During the study period, equipment replacement plans do not affect the needs identified.

8. RECOMMENDATIONS

Based on the findings of the Needs Assessment, the study team recommends that load restoration need following the loss of W36 and W37 should be further assessed as part of Local Planning by Hydro One and relevant LDC and that no further regional coordination is required to address needs in the London area.

TABLE OF CONTENTS

List of Tables and Figures

1 INTRODUCTION

The first cycle of the Regional Planning for the London Area Region began in 2015 and was completed in August 2017 with the publication of the Regional Infrastructure Plan (RIP). The RIP provided a description of needs and recommendations of preferred wires plans to address near- and medium-term needs.

The purpose of this Needs Assessment is to identify any new need that emerges since the completion of the previous London Area Regional Planning cycle.

This report was prepared by the London Area Region Study Team (Study Team), led by Hydro One Networks Inc. Participants of the Study Team are listed below in Table 1. This report presents the results of the assessment based on information provided by the Local Distribution Companies (LDC), Hydro One and the Independent Electricity System Operator (IESO).

Table 1: London Area Region Study Team Participants

Companies	
Entegrus Power Lines lnc.	London Hydro Inc.
ERTH Power Inc.	Tillsonburg Hydro Inc.
Hydro One Networks Inc. (Distribution)	Independent Electricity System Operator
Hydro One Networks Inc. (Lead Transmitter)	

2 REGIONAL ISSUE/TRIGGER

In accordance with the Regional Planning process as mandated by the Ontario Energy Board, Regional Planning cycle should be take place every five years. The first cycle of Regional Planning for the London Area Region began in February 2015 and given five years have elapsed, the second Regional Planning cycle for London Area was initiated in April 2020.

3 SCOPE OF NEEDS ASSESSMENT

The scope of this Needs Assessment includes a review of needs identified in the previous cycle and assessment to identify any new needs (e.g. system capacity, reliability, security and restoration) that may emerge in the next ten years.

The Study Team may identify additional needs during the subsequent phases of the Regional Planning process shown in Figure 1, namely Scoping Assessment, Local Planning, Integrated Regional Resource Plan (IRRP) and RIP.

Figure 1 – Regional Planning process at a glance

4 LONDON AREA TRANSMISSION SYSTEM

The London Area includes the municipalities of Oxford County (comprising Township of Blandford-Blenheim, Township of East Zorra-Tavistock, Town of Ingersoll, Township of Norwich, Township of South-West Oxford, Town of Tillsonburg, Township of Zorra), City of Woodstock, Middlesex County (comprising Municipality of Adelaide Metcalfe , Municipality of Lucan Biddulph, Municipality of Middlesex Centre, Municipality of North Middlesex, Municipality of Southwest Middlesex, Municipality of Strathroy-Caradoc, Municipality of Thames Centre, Village of Newbury), City of London, Elgin County (comprising Municipality of Town of Aylmer, Municipality of Bayham, Municipality of Central Elgin, Municipality of West Elgin, Municipality of Dutton/Dunwich, Township of Malahide, Township of Southwold), City of St. Thomas. In addition, the facilities located in the London Region supply part of Norfolk County. The boundaries of the London Area are shown below in Figure 2.

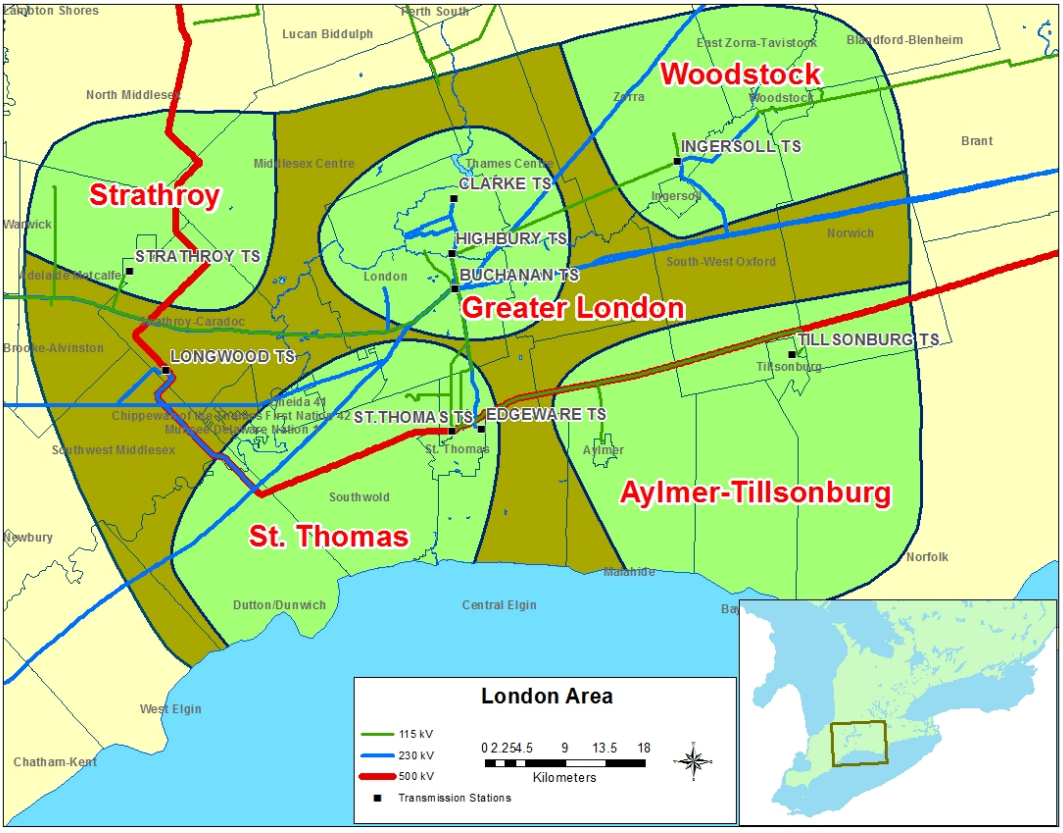


Figure 2: London Area Region

Electrical supply to the London Area is provided through a network of 230 kV and 115 kV circuits supplied by 500/230 kV autotransformers at Longwood Transformer Station (TS) and 230/115 kV autotransformers at Buchanan TS and Karn TS. Step-down transformer stations are connected to both 230 kV and 115 kV systems to bring the power to distribution level of 27.6 kV to serve the area. There are thirteen Hydro One step-down TS's, three transmission connected industrial load customers and three transmission connected generators in the London Area.

The existing facilities in the London Area are summarized below and depicted in the single line diagram shown in Figure 3. The 500 kV system is part of the bulk power system and is not studied as part of this Needs Assessment. Also, although depicted, Duart TS is not included in the London Area study and will be studied as part of the Chatham-Kent/Lambton/Sarnia Area Regional Planning.

- Longwood TS is the major transmission station that connects the 500kV network to the 230 kV system via two 500/230 kV autotransformers.
- Buchanan TS and Karn TS house 230/115 kV autotransformers which provide the necessary transformation from the 230 kV system to the 115 kV system.
- Thirteen step-down transformer stations supply the London Area load: Aylmer TS, Buchanan TS, Clarke TS, Commerce Way TS, Edgeware TS, Highbury TS, Ingersoll TS, Nelson TS, Strathroy TS, Talbot TS (Dual Element Spot Network or DESN 1 and DESN 2), Tillsonburg TS, Wonderland TS, and Woodstock TS.
- Three directly connected industrial customer loads are connected in the London Area: Enbridge Keyser CTS, Lafarge Woodstock CTS and Toyota Woodstock TS.
- There are three existing Transmission-connected generating stations in the London Area as follows:
  - Suncor Adelaide GS is a 40 MW wind farm connected to 115 kV circuit west of Strathroy TS
  - Port Burwell GS is a 99 MW wind farm connected to 115 kV circuit near Tillsonburg TS
  - Silver Creek GS is a 10 MW solar generator connected to 115 kV circuit near Aylmer TS
- There is a network of 230 kV and 115 kV circuits that provides supply to the London Area, as shown in Table 2 below:

Table 2: Transmission Lines in London Area

Voltage	Circuit Designations	Location
230 kV	N21W, N22W	Scott TS to Buchanan TS
	W42L, W43L	Longwood TS to Buchanan TS
	W44LC	Longwood TS to Chatham TS to Buchanan TS
	W45LS	Longwood TS to Spence SS to Buchanan TS
	W36, W37	Buchanan TS to Talbot TS and Clarke TS
	D4W, D5W	Buchanan TS to Detweiler TS
	M31W, M32W, M33W	Buchanan TS to Middleport TS
115 kV	W2S	Buchanan TS to Strathroy TS
	W5N	Buchanan TS to Nelson TS
	W6NL	Buchanan TS to Highbury TS to Nelson TS
	W9L	Buchanan TS to Highbury TS
	W7, W12	Buchanan TS to CTS
	WW1C	Buchanan TS to CTS
	W8T	Buchanan TS to ESWF JCT
	WT1T	ESWF JCT to Tillsonburg TS
	W3T, W4T	Buchanan TS to St. Thomas TS[1]
	WT1A	Aylmer TS to Lyons JCT
	K7, K12	Karn TS to Commerce Way TS

[1] St. Thomas TS will be decommissioned, work is underway but is currently on hold due to COVID-19, retermination work is currently planned to be completed in Q4 2020 subject to resource availability.

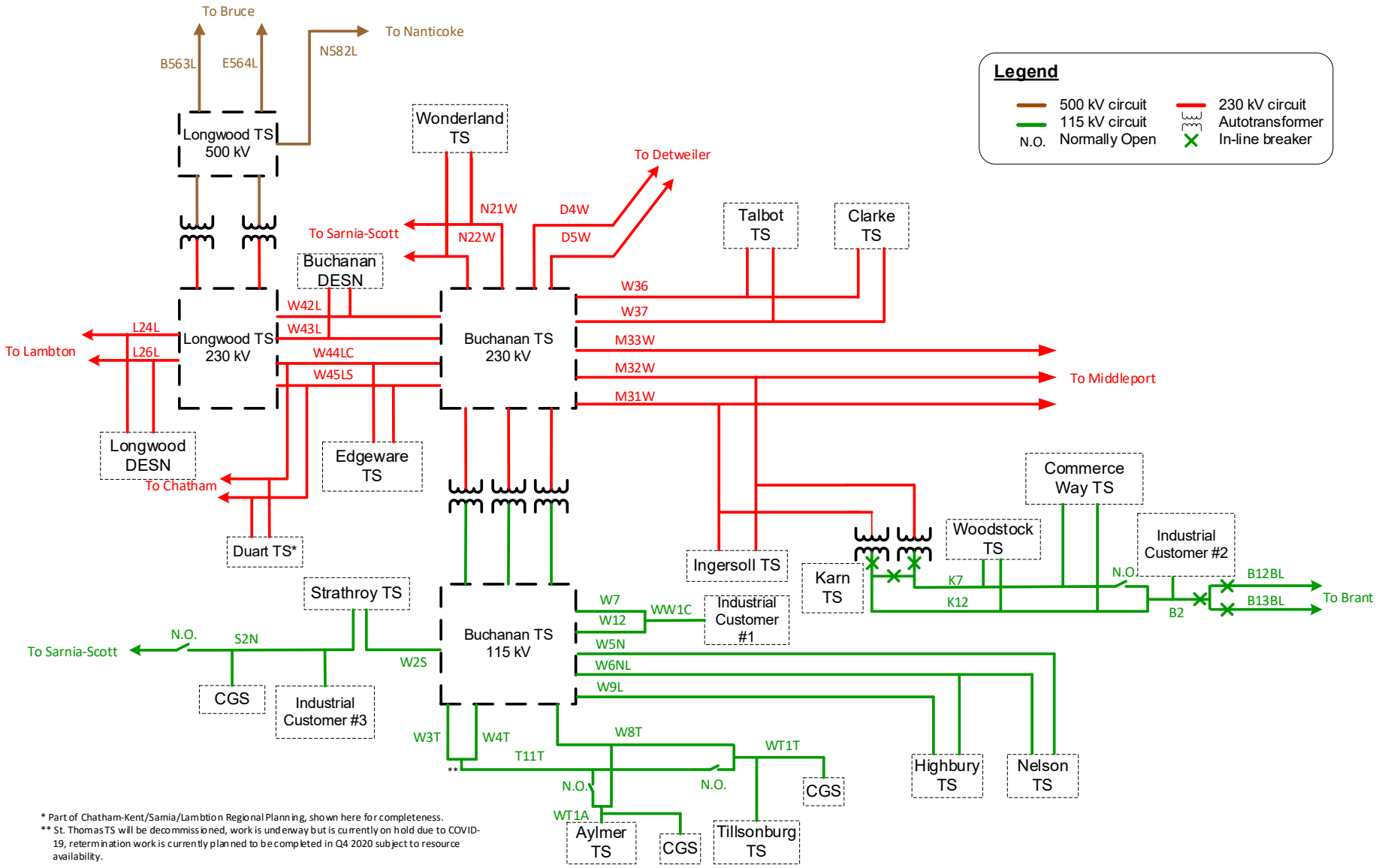


Figure 3: London Area Region Transmission System

5 INPUTS AND DATA

In order to conduct the Needs Assessment, Study Team participants provided the following information and data:

- IESO provided:
  i. List of existing reliability and operational issues
  ii. Forecasted contributions from Conservation and Demand Management (CDM) and Distributed Generation (DG) as well as seasonal capacity factors for different resources
- LDCs provided historical load data (2017 – 2019) and gross load forecast (2020 –2029)
- Hydro One (Transmission) provided transformer and circuit ratings, historical station load data (2017 – 2019), regional extreme weather correction factor and replacement plan for major assets approaching the end of their useful life.
- LDCs and Hydro One (Transmission) provided relevant planning information, including planned transmission and distribution investments.
- The study assumes Aylmer-Tillsonburg transmission reinforcement project as recommended in the previous Regional Planning cycle and St. Thomas decommissioning project will be implemented as planned.

6 ASSESSMENT METHODOLOGY

In general, a forecast of the peak demand to 2029 was developed based on the information listed in Section 5. From the forecast demand, the amount of available distributed generation and conservation & demand management was then deducted, and the remaining demand was compared to the supply capability of the existing system. The determination of need was consistent with the assumptions, consideration and criteria contained in the IESO Ontario Resource and Transmission Assessment Criteria (the "IESO ORTAC"). The section below provides more details about methodology and assumptions made in this Needs Assessment:

1. The assessment is based on summer peak loads.

2. Load data for transmission-connected industrial customers in the region was assumed to be consistent with historical peak loads.

3. The 2019 summer station peak load is considered as a reference point and was adjusted for extreme weather impact (7.34% in 2019). All LDCs' load forecasts are translated into load growth rates and are applied onto to the reference point to develop a gross load forecast.

   Distributed generation (DG) refers to small-scale power generation connected in the distribution system which is located close to where the electricity is consumed. Both conservation & demand management (CDM) as well as DG can reduce the amount of load that needs to be supplied and their contributions are directly net against the gross load forecast from Step (3) to develop a net load station forecast. A non-coincident version of the net load forecast was used to assess the station capacity as stated in Step (6).

As not all of the utility peaks are coincident with the regional peak. A coincident version of the net load forecast was used to assess the 230 kV transmission line needs (Section 7.1.2), 115 kV transmission line needs (Section 7.1.3), system security and restoration needs (Section 7.2).

The demand forecast for transformer stations in London Area are shown in Appendix A. Overall, the London Area is expected to grow at an average rate of approximately 0.9% annually from 2020 – 2029.

4. Review impact of any on-going and/or planned development projects in the London Area during the study period.

5. Review and assess impact of any critical/major elements planned to be replaced at the end of their useful life such as autotransformers, transformers and transmission lines.

6. Station capacity adequacy is assessed by comparing the non-coincident peak load with the station's normal planning supply capacity assuming a 90% lagging power factor for stations. Normal planning supply capacity for transformer stations in this Region is determined by the summer 10-Day limited time rating (LTR).

7. To identify emerging need in the Region and determine whether or not further coordinated regional planning should be undertaken, the study was performed observing all elements in-service and only one element out of service.

8. Transmission adequacy assessment is consistent with the IESO ORTAC and below is a brief summary:
   - With all elements in service, the system is to be capable of supplying forecast demand with equipment loading within continuous ratings and voltages within normal range.
   - With one element out of service, the system is to be capable of supplying forecast demand with circuit loading within their long-term emergency (LTE) ratings and transformers within their summer 10-Day LTR.
   - All voltages must be within pre and post contingency ranges as per ORTAC Sections 4.2 and 4.3 criterion.
   - With one element out of service, no more than 150 MW of load is lost by configuration. With two elements out of service, no more than 600 MW of load is lost by configuration.
   - With two elements out of service, the system is capable of meeting the load restoration time stated ORTAC Section 7.2 criteria.

7 RESULTS

This section summarizes needs identified in the London Area Region. Status of the previously identified needs is summarized in Table 3 and the newly identified/emerging needs pertaining to this Needs Assessment will be discussed further in the remaining of this section.

Table 3: Needs Identified in the Previous Regional Planning Cycle

Needs identified in the previous Regional Planning cycle	Details	Current Status
Load Restoration for loss of M31W/M32W	Previous assessments indicated in case of simultaneous loss of two transmission elements (M31W/M32W), the load interrupted with current circuit configuration during peak periods will exceed 150 MW.	This need remains as the load interrupted will reach 158 MW in 2029 and is elaborated further in Section 7.2.
Load Restoration for loss of W36/W37	Previous assessments indicated for the simultaneous loss of two transmission elements (W36/W37), the load interrupted with the current circuit configuration during peak periods will exceed 250 MW.	This need remains as the load interrupted will reach over 390 MW in 2029. The last cycle of London Area regional planning recommended installing automated switching as well as extending feeders in the distribution system to improve the load restoration capability. London Hydro confirmed that these capital projects are currently underway. This need is further discussed in Section 7.2.
Voltage Violation at Tillsonburg TS	Pre-contingency voltage on Tillsonburg 115kV side falls below the permissible levels outlined in ORTAC.	The last cycle of London Area Regional Planning recommended Hydro One to proceed with the Aylmer-Tillsonburg project to address these needs, which among other things, will include installing two new 10 MVar capacitor banks at Tillsonburg TS. The additional reactive power support will address the voltage issue at Tillsonburg 115 kV and W8T thermal overload. Together with the impacted LDCs, a number of options were explored to address the delivery point performance need. It was agreed that reversing the existing normal operating points at Cranberry Junction will be the most cost-effective option. Upon the completion of the Aylmer-Tillsonburg project, Tillsonburg TS will be normally supplied by W3T/W4T/T11T while Aylmer TS will remain normally supplied by W8T. This project is currently underway with in-service date of Q2 2022.
Thermal constraint on 115kV line W8T	Thermal constraints are observed on 115 kV circuit W8T between Buchanan TS and Edgeware JCT. Under pre-contingency conditions, the thermal loading on this section line will exceed its planning rating.	
Poor delivery point performance at Tillsonburg TS	Historical data indicated that the frequency of outages to Tillsonburg Hydro and Hydro One Distribution exceed level prescribed in Hydro One's "Customer Delivery Point Performance Standard".	

7.1 Transmission Capacity Needs

Sections 7.1.1 to 7.1.3 summarize the Needs Assessment study results based the London Area region coincident load forecast.

7.1.1 230/115 kV Autotransformers

The 230/115 kV autotransformers (Buchanan TS and Karn TS) supplying the London Area are adequate over the study period for the loss of a single 230/115 kV autotransformer.

7.1.2 230 kV Transmission Lines

Under peak load condition and with standard power factor assumption of 0.9, for (N-1) contingency of W36/W37 and breaker failure contingencies at Buchanan TS that involve loss of either W36 or W37, the companion circuit will be loaded close to its LTE rating (96% to 99%) by the end of study period. The circuit loadings improve when power factor of 0.97 as provided by London Hydro is assumed for the transformer stations connected to W36 and W37, namely Talbot TS and Clarke TS.

The remaining 230 kV circuits supplying the London Area have adequate capacity over the study period for the loss of a single 230 kV circuit in the Region.

7.1.3 115 kV Transmission Lines

The 115 kV circuits supplying the London Area have adequate capacity over the study period for the loss of a single 115 kV circuit in the Region.

7.1.4 230 kV and 115 kV Connection Facilities

A station capacity assessment was performed over the study period for the 230 kV and 115 kV TS's in the London Area using the summer station peak load forecasts (non-coincident) provided by the study team. The results are as follows:

Clarke TS
Clarke TS T3/T4 will exceed its 10-Day LTR in 2022 based on the net load forecast (approximately 101% of Summer 10-Day LTR).

Talbot TS
Talbot TS T3/T4 DESN is forecasted to exceed its 10-Day LTR rating throughout the study period based on the net load forecast (approximately 118% of Summer 10-Day LTR).

Nelson TS recently underwent refurbishment which includes converting the low-voltage supply from 13.8 kV to 27.6 kV. During the construction period, significant portion of the load that was originally supplied by this station was transferred to Clarke TS and Talbot TS. The newly refurbished Nelson TS was placed in-service in December 2018 and as more 27.6 kV distribution feeders becomes available in downtown London, London Hydro confirmed load will be transferred back to Nelson TS and additional transformation capacity is not required at this time.

All the other TSs in the London Area are forecasted to remain within their normal supply capacity during the study period. Therefore, no action is required at this time and the capacity needs will be reviewed in the next planning cycle.

7.2 System Security and Restoration Review

Based on the net coincident load forecast, the loss of one element will not result in load interruption greater than 150 MW. The maximum load interrupted by configuration due to the loss of two elements is below the load loss limit of 600 MW by the end of the 10-year study period.

Based on the net coincident load forecast at Ingersoll TS and stations connected along the 115 kV circuits K7/K12/B2, the load interrupted by configuration may reach 158 MW for the loss of double-circuit line M31W and M32W or loss of both autotransformers at Karn TS. The system is required to restore 8 MW within 4 hours and the remaining 150 MW within 8 hours. This need was first identified in the previous Regional Planning cycle and remains in this cycle. Hydro One Distribution estimated 10 MW of load at Ingersoll TS can be transferred to Highbury TS to restore some load remotely within 4 hours. To restore the remaining 148 MW of interrupted load within 8 hours, field crew from the nearest staffed centre in London area will be dispatched and install temporary fixes on the transmission system such as building emergency by-pass. Therefore, no action is required at this time and this will be reviewed in the next planning cycle.

Based on the net coincident load forecast at Clarke TS and Talbot TS, the load interrupted by configuration will reach beyond 390 MW in 2029 for the loss of double-circuit line W36 and W37. In accordance with ORTAC, the system is required to restore 140 MW within 30 minute, 100 MW within 4 hours and the remaining 150 MW within 8 hours. This need was first reported in the previous Regional Planning cycle and the impacted LDC, London Hydro, and the IESO undertook further planning as part of the Integrated Regional Resource Plan (IRRP). The recommendation was to install automated switches and extend feeders in the distribution system and London Hydro confirmed these projects are currently underway. Further, as discussed in Section 7.1.4, load will continue to be transferred from Clarke TS and Talbot TS to Nelson TS over the study period. The amount of load required to be restored within 30 minutes will continue to be reduced as these projects progress, post-completion of these projects will be a better representation of the steady state load restoration requirement. Therefore, it is recommended that London Hydro and Hydro One Transmission to further examine this need in form of Local Planning to determine the restoration target once all the ongoing projects are completed, identify the restoration capability from the existing transmission and distribution systems and devise an action plan.

The simultaneous loss of double-circuit line W44LC and W45LS will interrupt approximately 165 MW of load at Edgeware TS and Duart TS[2] by configuration and 15 MW of interrupted load needs to be restored within 4 hours. All remaining load must be restored within 8 hours. Hydro One Distribution estimated 10 MW of load at Edgeware TS can be transferred to Aylmer TS. Another 11 MW could be transferred from Duart TS to Kent TS on the feeder level. These measures can be deployed remotely to manage and mitigate the impact of the [N – 2] contingency within the 4 hours timeframe. The remaining 144 MW of interrupted load can be within 8 hours by dispatching field crew from the nearest staffed centre in London area to install

[2] Coincident forecasted load for Duart TS not available as it is part of the Chatham-Kent/Lambton/Sarnia Area Region which is scheduled to begin at a later time. For the purpose of this report, 2019 summer station peak of approximately 50 MW is assumed.

temporary fixes on the transmission system. Therefore, no action is required at this time and this will be reviewed in the next planning cycle.

7.3 Aging Infrastructure and Replacement Plan of Major Equipment

Hydro One reviewed the sustainment initiatives that are currently planned for the replacement of any autotransformers, power transformers and high-voltage lines. During the study period:

- The existing 115 kV switchyard in Buchanan TS will be replaced on a like-for-like basis and is scheduled to be completed in 2025. Project scope will be finalized upon asset condition verification.
- The existing Clarke TS DESN transformers will be replaced on a like-for-like basis and is scheduled to be completed in 2025.
- The existing Wonderland TS 27.6 kV switchyard will be replaced on a like-for-like basis and is scheduled to be completed in 2023.
- Protection equipment replacement projects will take place at Edgeware TS, Longwood TS, and Tillsonburg TS and will not have material impact to this Needs Assessment study.
- There is no significant lines sustainment plan that will affect the results of this Needs Assessment study.

To conclude, equipment replacement plans do not affect the needs identified during the study period.

8 CONCLUSION AND RECOMMENDATIONS

Based on the findings and discussion in Section 7 of the Needs Assessment report, the study team recommends that load restoration need following the loss of W36 and W37 should be further assessed as part of Local Planning by Hydro One and relevant LDC and that no further regional coordination is required to address needs in the London area.

9 REFERENCES

[1] RIP Report – London Area Region – August 2017

[2] IRRP Report – Greater London Area

[3] Planning Process Working Group Report to the Ontario Energy Board - May 2013

[4] Ontario Resource and Transmission Assessment Criteria (ORTAC) – Issue 5.0 -August 2007

Appendix A: London Area Region non-coincident and coincident summer load forecast

Table A.1: London Area Region Summer Non-Coincident Load Forecast

Transformer Station	Quantities	Reference	Near Term Forecast (MW)					Medium Term Forecast (MW)				
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Aylmer TS	Gross	26.67	27.03	27.40	27.77	28.15	28.54	28.93	29.32	29.72	30.12	30.54
	DG		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	CDM		0.22	0.25	0.31	0.39	0.45	0.52	0.57	0.66	0.71	0.73
	Net		26.79	27.14	27.45	27.75	28.07	28.39	28.73	29.05	29.40	29.79
Buchanan TS	Gross	145.86	148.04	150.24	152.48	154.76	157.07	159.41	161.79	164.20	166.65	169.13
	DG		11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23
	CDM		1.22	1.35	1.68	2.14	2.48	2.88	3.16	3.64	3.93	4.04
	Net		135.59	137.66	139.57	141.38	143.36	145.30	147.39	149.33	151.49	153.87
Clarke TS	Gross	104.14	105.76	107.40	109.07	110.77	112.49	114.23	116.01	117.81	119.64	121.50
	DG		2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
	CDM		0.87	0.97	1.21	1.53	1.77	2.06	2.27	2.61	2.82	2.90
	Net		102.28	103.82	105.25	106.62	108.10	109.56	111.13	112.58	114.21	115.98
Commerce Way TS	Gross	38.39	38.70	39.00	39.32	39.63	39.95	40.27	40.59	40.91	41.24	41.57
	DG		2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95
	CDM		0.32	0.35	0.43	0.55	0.63	0.73	0.79	0.91	0.97	0.99
	Net		35.43	35.71	35.94	36.14	36.37	36.59	36.85	37.06	37.32	37.63
Edgeware TS	Gross	106.29	107.83	109.39	110.97	112.57	114.20	115.85	117.53	119.23	120.95	122.70
	DG		3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16
	CDM		0.89	0.99	1.23	1.56	1.80	2.09	2.30	2.64	2.85	2.93
	Net		103.78	105.24	106.58	107.85	109.24	110.60	112.07	113.42	114.94	116.61
Highbury TS	Gross	72.46	73.36	74.28	75.20	76.14	77.09	78.05	79.02	80.01	81.01	82.01
	DG		3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89
	CDM		0.60	0.67	0.83	1.05	1.22	1.41	1.54	1.77	1.91	1.96
	Net		68.87	69.71	70.48	71.19	71.98	72.75	73.59	74.34	75.20	76.16
Ingersoll TS	Gross	77.78	78.60	79.43	80.27	81.12	81.97	82.84	83.71	84.60	85.49	86.40
	DG		9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36
	CDM		0.65	0.72	0.89	1.12	1.29	1.50	1.64	1.88	2.01	2.06
	Net		68.60	69.36	70.02	70.64	71.32	71.99	72.72	73.37	74.12	74.98
Longwood TS	Gross	38.37	38.77	39.18	39.58	40.00	40.41	40.83	41.26	41.69	42.12	42.56
	DG		0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
	CDM		0.32	0.35	0.44	0.55	0.64	0.74	0.81	0.92	0.99	1.02
	Net		37.64	38.00	38.33	38.62	38.96	39.28	39.63	39.94	40.31	40.72
Nelson TS	Gross	40.56	42.23	43.97	45.78	47.67	49.64	51.69	53.82	56.04	58.35	60.75
	DG		17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55
	CDM		0.35	0.40	0.51	0.66	0.78	0.93	1.05	1.24	1.37	1.45
	Net		24.34	26.03	27.73	29.47	31.31	33.21	35.22	37.25	39.43	41.76
Strathroy TS	Gross	38.37	38.56	38.75	38.95	39.14	39.34	39.54	39.74	39.94	40.14	40.34
	DG		6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29
	CDM		0.32	0.35	0.43	0.54	0.62	0.71	0.78	0.89	0.95	0.96
	Net		31.95	32.11	32.23	32.31	32.43	32.53	32.67	32.76	32.90	33.09
Talbot T1/T2	Gross	112.38	112.34	112.29	112.25	112.21	112.16	112.12	112.08	112.04	111.99	111.95
	DG		-	-	-	-	-	-	-	-	-	-
	CDM		0.92	1.01	1.24	1.55	1.77	2.03	2.19	2.48	2.64	2.67
	Net		111.41	111.28	111.01	110.65	110.40	110.10	109.89	109.55	109.35	109.28
Talbot T3/T4	Gross	204.95	204.05	203.15	202.25	201.36	200.47	199.59	198.71	197.83	196.96	196.09
	DG		12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	0.37
	CDM		1.68	1.83	2.23	2.79	3.16	3.61	3.88	4.39	4.64	4.68
	Net		190.24	189.19	187.89	186.44	185.18	183.85	182.69	181.31	180.19	191.04
Tillsonburg TS	Gross	89.14	90.52	91.92	93.34	94.78	96.25	97.74	99.25	100.78	102.34	103.92
	DG		3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	0.68	0.68
	CDM		0.74	0.83	1.03	1.31	1.52	1.77	1.94	2.23	2.41	2.48
	Net		86.32	87.64	88.85	90.01	91.27	92.51	93.85	95.09	99.24	100.76
Wonderland TS	Gross	90.70	91.82	92.95	94.09	95.25	96.42	97.61	98.81	100.03	101.26	102.50
	DG		1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
	CDM		0.75	0.84	1.04	1.32	1.52	1.76	1.93	2.22	2.39	2.45
	Net		89.65	90.70	91.64	92.52	93.49	94.43	95.47	96.40	97.46	98.65
Woodstock TS	Gross	65.39	65.95	66.51	67.08	67.66	68.24	68.82	69.41	70.00	70.60	71.21
	DG		1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
	CDM		0.54	0.60	0.74	0.94	1.08	1.24	1.36	1.55	1.66	1.70
	Net		63.79	64.29	64.72	65.10	65.54	65.96	66.43	66.83	67.32	67.89
Industrial Customer #1		12	12	12	12	12	12	12	12	12	12	12
Industrial Customer #2		19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Industrial Customer #3		2	2	2	2	2	2	2	2	2	2	2
London Area Total			1211	1222	1232	1241	1251	1261	1272	1282	1297	1322

Note (1) – Edgeware TS 15MW load increase (CAA 2019-658) is included in gross load forecast that increases load in an even annual stream over the next ten to 15 years, as opposed to a sudden step change at a particular point in time.
Note (2) – Buchanan TS 15MW load increase (CAA 2019-670) is included in gross load forecast with the assumption that some existing load will be transferred to nearby stations; hence there is no step change.

Table A.2: London Area Region Summer Coincident Load Forecast

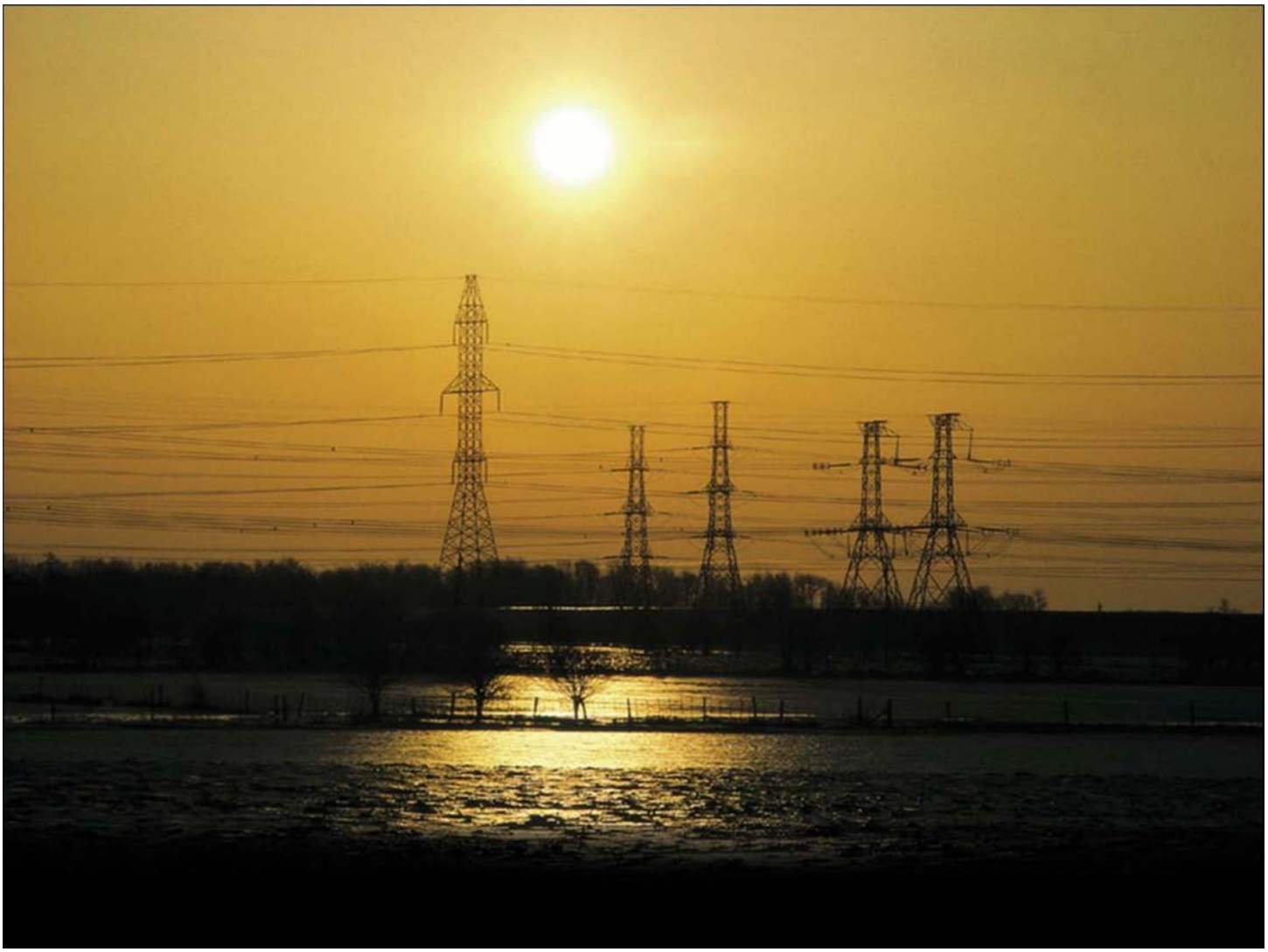
Transformer Station	Quantities	Reference	Near Term Forecast (MW)					Medium Term Forecast (MW)				
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Aylmer TS	Gross	20.64	20.92	21.21	21.50	21.79	22.09	22.39	22.69	23.00	23.32	23.64
	DG		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	CDM		0.17	0.19	0.24	0.30	0.35	0.40	0.44	0.51	0.55	0.56
	Net		20.74	21.00	21.25	21.47	21.72	21.97	22.24	22.48	22.75	23.06
Buchanan TS	Gross	139.77	141.86	143.97	146.12	148.30	150.51	152.76	155.04	157.35	159.69	162.08
	DG		11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23
	CDM		1.17	1.30	1.61	2.05	2.37	2.76	3.03	3.49	3.76	3.87
	Net		129.46	131.45	133.28	135.02	136.91	138.77	140.78	142.63	144.70	146.98
Clarke TS	Gross	114.79	116.57	118.38	120.22	122.09	123.98	125.91	127.86	129.85	131.87	133.92
	DG		2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
	CDM		0.96	1.07	1.33	1.69	1.96	2.27	2.50	2.88	3.11	3.20
	Net		113.00	114.70	116.28	117.78	119.41	121.02	122.75	124.36	126.15	128.11
Commerce Way TS	Gross	27.27	27.49	27.71	27.93	28.15	28.38	28.61	28.83	29.06	29.30	29.53
	DG		2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95
	CDM		0.23	0.25	0.31	0.39	0.45	0.52	0.56	0.64	0.69	0.70
	Net		24.32	24.51	24.68	24.82	24.99	25.14	25.33	25.47	25.66	25.88
Edgeware TS	Gross	104.38	105.89	107.42	108.98	110.55	112.15	113.77	115.42	117.08	118.78	120.49
	DG		3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16	3.16
	CDM		0.87	0.97	1.20	1.53	1.77	2.06	2.25	2.60	2.80	2.88
	Net		101.86	103.30	104.61	105.86	107.22	108.56	110.00	111.33	112.82	114.46
Highbury TS	Gross	58.42	59.15	59.89	60.63	61.39	62.15	62.93	63.71	64.51	65.31	66.12
	DG		3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89
	CDM		0.49	0.54	0.67	0.85	0.98	1.14	1.24	1.43	1.54	1.58
	Net		54.77	55.45	56.07	56.64	57.28	57.90	58.57	59.18	59.88	60.65
Ingersoll TS	Gross	50.59	51.12	51.66	52.21	52.76	53.31	53.88	54.45	55.02	55.60	56.19
	DG		9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36	9.36
	CDM		0.42	0.47	0.58	0.73	0.84	0.97	1.06	1.22	1.31	1.34
	Net		41.34	41.84	42.27	42.67	43.12	43.55	44.03	44.44	44.94	45.49
Longwood TS	Gross	35.60	35.97	36.34	36.72	37.10	37.49	37.88	38.27	38.67	39.07	39.48
	DG		0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
	CDM		0.30	0.33	0.41	0.51	0.59	0.68	0.75	0.86	0.92	0.94
	Net		34.85	35.19	35.49	35.77	36.08	36.37	36.70	36.99	37.33	37.72
Nelson TS	Gross	30.98	32.26	33.59	34.97	36.41	37.92	39.48	41.11	42.80	44.57	46.41
	DG		17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55
	CDM		0.26	0.30	0.39	0.50	0.60	0.71	0.80	0.95	1.05	1.11
	Net		14.45	15.74	17.04	18.36	19.77	21.22	22.76	24.31	25.97	27.75
Strathroy TS	Gross	35.05	35.23	35.40	35.58	35.76	35.94	36.12	36.30	36.48	36.67	36.85
	DG		6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29
	CDM		0.29	0.32	0.39	0.50	0.57	0.65	0.71	0.81	0.86	0.88
	Net		28.65	28.80	28.90	28.98	29.08	29.18	29.30	29.39	29.51	29.68
Talbot T1/T2	Gross	112.00	111.96	111.91	111.87	111.83	111.78	111.74	111.70	111.66	111.61	111.57
	DG		-	-	-	-	-	-	-	-	-	-
	CDM		0.92	1.01	1.24	1.55	1.76	2.02	2.18	2.48	2.63	2.66
	Net		111.04	110.90	110.63	110.28	110.02	109.72	109.52	109.18	108.98	108.91
Talbot T3/T4	Gross	172.58	171.82	171.06	170.31	169.56	168.81	168.06	167.32	166.58	165.85	165.12
	DG		12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	0.37
	CDM		1.41	1.54	1.88	2.35	2.66	3.04	3.27	3.69	3.91	3.94
	Net		158.28	157.39	156.30	155.08	154.02	152.90	151.92	150.76	149.81	160.80
Tillsonburg TS	Gross	80.84	82.09	83.36	84.65	85.96	87.29	88.64	90.01	91.40	92.81	94.25
	DG		3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	0.68	0.68
	CDM		0.67	0.75	0.94	1.19	1.38	1.60	1.76	2.03	2.19	2.25
	Net		77.96	79.16	80.26	81.31	82.46	83.58	84.79	85.92	89.94	91.31
Wonderland TS	Gross	97.34	98.53	99.75	100.97	102.22	103.48	104.75	106.04	107.34	108.66	110.00
	DG		1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
	CDM		0.81	0.90	1.12	1.42	1.63	1.89	2.07	2.38	2.56	2.63
	Net		96.31	97.44	98.45	99.39	100.43	101.44	102.55	103.55	104.69	105.96
Woodstock TS	Gross	64.65	65.20	65.76	66.32	66.89	67.46	68.04	68.62	69.21	69.80	70.40
	DG		1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
	CDM		0.54	0.59	0.73	0.93	1.06	1.23	1.34	1.53	1.64	1.68
	Net		63.04	63.55	63.97	64.34	64.78	65.19	65.66	66.05	66.53	67.10
Industrial Customer #1		12	12	12	12	12	12	12	12	12	12	12
Industrial Customer #2		19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Industrial Customer #3		2	2	2	2	2	2	2	2	2	2	2
London Area Total			1104	1114	1123	1132	1141	1150	1161	1170	1184	1208

Note (1) – Edgeware TS 15MW load increase (CAA 2019-658) is included in gross load forecast that increases load in an even annual stream over the next ten to 15 years, as opposed to a sudden step change at a particular point in time.
Note (2) – Buchanan TS 15MW load increase (CAA 2019-670) is included in gross load forecast with the assumption that some existing load will be transferred to nearby stations; hence there is no step change.

Appendix B: Acronyms

Acronym	Description
CDM	Conservation and Demand Management
CTS	Customer Transformer Station
DESN	Dual Element Spot Network
DG	Distributed Generation
DS	Distribution Station
GS	Generating Station
HV	High Voltage
IESO	Independent Electricity System Operator
IRRP	Integrated Regional Resource Plan
kV	Kilovolt
LDC	Local Distribution Company
LTE	Long Term Emergency
LTR	Limited Time Rating
LV	Low Voltage
MW	Megawatt
MVA	Mega Volt-Ampere
MVAR	Mega Volt-Ampere Reactive
OEB	Ontario Energy Board
ORTAC	Ontario Resource and Transmission Assessment Criteria
PPWG	Planning Process Working Group
RIP	Regional Infrastructure Plan
SA	Scoping Assessment
SIA	System Impact Assessment
SS	Switching Station
TS	Transformer Station

APPENDIX 2-B HYDRO ONE LONDON AREA INFRASTRUCTURE PLAN



London Area
Regional Infrastructure Plan

August 12, 2022

hydro one

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Prepared and supported by:

Company
Entegrus Power Lines Inc.
ERTH Power Inc.
Hydro One Networks Inc. (Distribution)
London Hydro Inc.
Tillsonburg Hydro Inc.
Independent Electricity System Operator
Hydro One Networks Inc. (Lead Transmitter)

Disclaimer

This Regional Infrastructure Plan ("RIP") report was prepared for the purpose of developing an electricity infrastructure plan to address all near and mid-term needs identified in previous planning phases and any additional needs identified based on new and/or updated information provided by the RIP Study Team.

The preferred solution(s) that have been identified in this report may be reevaluated based on the findings of further analysis. The load forecast and results reported in this RIP report are based on the information provided and assumptions made by the participants of the RIP Study Team.

Study Team participants, their respective affiliated organizations, and Hydro One Networks Inc. (collectively, "the Authors") make no representations or warranties (express, implied, statutory or otherwise) as to the RIP report or its contents, including, without limitation, the accuracy or completeness of the information therein and shall not, under any circumstances whatsoever, be liable to each other, or to any third party for whom the RIP report was prepared ("the Intended Third Parties"), or to any other third party reading or receiving the RIP report ("the Other Third Parties"), for any direct, indirect or consequential loss or damages or for any punitive, incidental or special damages or any loss of profit, loss of contract, loss of opportunity or loss of goodwill resulting from or in any way related to the reliance on, acceptance or use of the RIP report or its contents by any person or entity, including, but not limited to, the aforementioned persons and entities.

Executive Summary

This Regional Infrastructure Plan ("RIP") was prepared by Hydro One with support from the RIP Study Team in accordance to the Ontario Transmission System Code requirements. It identifies investments in transmission facilities, distribution facilities, or both, that should be developed and implemented to meet the electricity infrastructure needs within the London Area.

The participants of the Regional Infrastructure Plan ("RIP") Study Team included members from the following organizations:

- Entegrus Power Lines Inc.
- ERTH Power Inc.
- Hydro One Networks Inc. (Distribution)
- London Hydro Inc
- Tillsonburg Hydro Inc.
- Independent Electricity System Operator
- Hydro One Networks Inc. (Transmission)

This RIP is the final phase of the second cycle of the London Area regional planning process, which follows the completion of the London Area Needs Assessment in May 2020 [5] and the Greater London Sub-region Restoration Local Planning Report in October 2021 [6]. Scoping Assessment and Integrated Regional Resource Plan was not carried out in this cycle. This RIP provides a consolidated summary of the needs and recommended plans for London Area Region over the planning horizon (10 years). No new need had been identified at this time.

This RIP discusses needs identified in the previous regional planning cycle, the Needs Assessment and Local Planning reports for this cycle, and wires solutions recommended to address these needs. Implementation plans to address some of these needs are already completed or are underway. Since the previous regional planning cycle, the following projects have commenced and/or completed:

- Aylmer TS transformers and low-voltage switchyard replacement project competed in 2017.
- Strathroy TS failed transformer T1 and low-voltage switchyard replacement project completed in 2019.
- Wonderland TS failed transformer T6 was replaced in 2019.
- St. Thomas TS was decommissioned and 115 kV circuit W14 re-termination work was completed in 2020.
- Sarnia Scott TS to Buchanan TS 230 kV circuits N21W/N22W tower structures refurbishment project was completed in 2021.
- Nelson TS station refurbishment project will be completed in 2022.
- Tillsonburg TS new low-voltage capacitor banks installed in 2021 and switchyard component replacement project to be completed in 2022.
- Longwood TS protection and control replacement project to be completed in 2023.
- Edgeware TS protection and control replacement project to be completed in 2024.

The major infrastructure investments planned for the London Area over the near and mid-term planning horizon are provided in the Table 1 below, along with the planned in-service dates.

TABLE 1 - RECOMMENDED PLANS FOR LONDON AREA OVER THE NEXT 10 YEARS

Need	Stations / Lines	Recommended Action Plan	In-service
Station capacity	Talbot TS	No action required	--
Greater London sub-region restoration need	W36/W37	No action required	--
End-of-life equipment replacement	Buchanan TS	Replacement of autotransformers and associated equipment	2028
	Clarke TS	Replacement of step-down transformers, associated disconnect switches, low-voltage switchyard components	2028
	Talbot TS	Replacement of step-down transformers (T3/T4), associated disconnect switches, low-voltage switchyard components	2028
	Wonderland TS	Low-voltage switchyard components replacement	2026
	M31W/ M32W (Salford Junction x Ingersoll)	London Area East Optical Ground Wire (OPGW) Infrastructure	2027
	W36/W37/W5 NL/W6NL/W2S/ N21W	London Area West Telecom Optical Ground Wire (OPGW) Infrastructure Installation	2029

The Study Team recommends Hydro One to continue with the implementation of infrastructure investments listed in Table 1 above.

In accordance with the Regional Planning process, the RIP should be reviewed and/or updated at least every five years. The London Area Region will continue to be monitored and should there be a need that emerges earlier due to a change in load forecast or any other reason, the next regional planning cycle will be triggered in advance of the five-year timeline.

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1. Introduction

THIS REPORT PRESENTS THE REGIONAL INFRASTRUCTURE PLAN ("RIP") TO ADDRESS THE ELECTRICITY NEEDS OF THE LONDON AREA REGION BETWEEN 2021 AND 2031.

The report was prepared by Hydro One Networks Inc. (Transmission) ("Hydro One") on behalf of the Study Team that consists of Entegrus Power Lines Inc., ERTH Power Inc., London Hydro Inc., Tillsonburg Hydro Inc., Hydro One Networks Inc. (Distribution), and the Independent Electricity System Operator ("IESO"), in accordance with the new Regional Planning process established by the Ontario Energy Board in 2013.

The London Area includes the municipalities of Oxford County (comprising Township of Blandford-Blenheim, Township of East Zorra-Tavistock, Town of Ingersoll, Township of Norwich, Township of South-West Oxford, Town of Tillsonburg, Township of Zorra), City of Woodstock, Middlesex County (comprising Municipality of Adelaide Metcalfe , Municipality of Lucan Biddulph, Municipality of Middlesex Centre, Municipality of North Middlesex, Municipality of Southwest Middlesex, Municipality of Strathroy-Caradoc, Municipality of Thames Centre, Village of Newbury), City of London, Elgin County (comprising Municipality of Town of Aylmer, Municipality of Bayham, Municipality of Central Elgin, Municipality of West Elgin, Municipality of Dutton/Dunwich, Township of Malahide, Township of Southwold), and the City of St. Thomas. In addition, the facilities located in the London Region supply part of Norfolk County. The boundaries of the London Area are shown below in Figure 1-1.

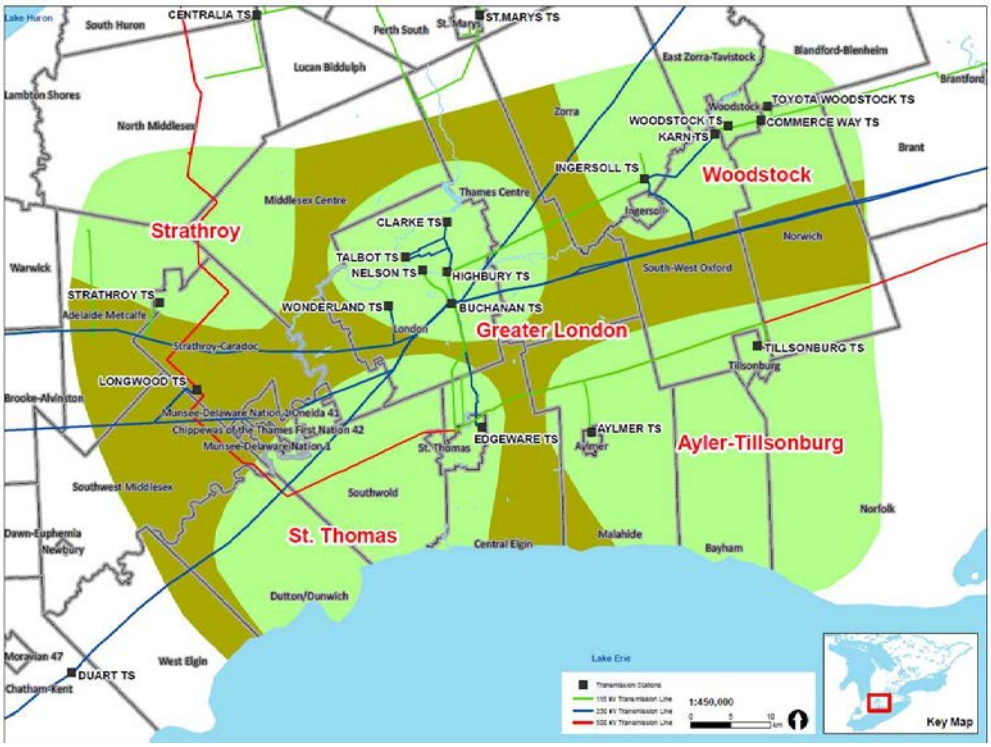


FIGURE 1-1: LONDON AREA REGION MAP

1.1. Objectives and Scope

The RIP report examines the needs in the London Area Region. Its objectives are to:

- Provide a comprehensive summary of needs and wires plans to address the needs;
- Identify any new needs that may have emerged since previous planning phases i.e., Needs Assessment and Local Planning;
- Assess and develop a wires plan to address these needs; and
- Identify investments in transmission and distribution facilities or both that should be developed and implemented on a coordinated basis to meet the electricity infrastructure needs within the region.

The RIP reviewed factors such as the load forecast, major high voltage sustainment needs emerging over the near and medium term horizon, transmission and distribution system capability along with any updates to local plans, conservation and demand management ("CDM") forecasts, renewable and non-renewable generation development, and other electricity system and local drivers that may impact the need and alternatives under consideration.

The scope of this RIP is as follows:

- A consolidated report of the relevant wires plans to address near and medium-term needs identified in previous planning phases;
- Discussion of any other major transmission infrastructure investment plans over the planning horizon;
- Identification of any new needs and a wires plan to address these needs based on new and/or updated information;
- Develop a plan to address any longer term needs identified by the Study Team.

1.2. Structure

The rest of the report is organized as follows:

- Section 2 provides an overview of the regional planning process.
- Section 3 describes the regional characteristics.
- Section 4 describes the transmission work completed over the last ten years.
- Section 5 describes the load forecast and study assumptions used in this assessment.
- Section 6 discusses the needs and provides the alternatives and preferred solutions.
- Section 7 provides the conclusion and next steps.

2. Regional Planning Process

2.1. Overview

Planning for the electricity system in Ontario takes place at three levels: bulk system planning, regional system planning, and distribution system planning. These levels differ in the facilities that are considered and the scope of impact on the electricity system. Planning at the bulk system level typically looks at issues that impact the system on a provincial level, while planning at the regional and distribution levels looks at issues on a more regional or localized level.

Regional planning focuses on assessing supply and reliability issues at a regional or local area level. Therefore, it largely considers the 115 kV and 230 kV portions of the power system that supply various parts of the province.

2.2. Regional Planning Process

A structured regional planning process was established by the Ontario Energy Board ("OEB") in 2013 through amendments to the Transmission System Code ("TSC") and Distribution System Code ("DSC"). The process consists of four phases: the Needs Assessment[1] ("NA"), the Scoping Assessment ("SA"), the Integrated Regional Resource Plan ("IRRP"), and the Regional Infrastructure Plan ("RIP").

The regional planning process begins with the NA phase, which is led by the transmitter to determine if there are regional needs. The NA phase identifies the needs and the Study Team determines whether further regional coordination is necessary to address them. If no further regional coordination is required, further planning is undertaken by the transmitter and the impacted local distribution company ("LDC") or customer and develops a Local Plan ("LP") to address them.

In situations where identified needs require coordination at the regional or sub-regional levels, the IESO initiates the SA phase. During this phase, the IESO, in collaboration with the transmitter and impacted LDCs, reviews the information collected as part of the NA phase, along with additional information on potential non-wires alternatives, and makes a decision on the most appropriate regional planning approach. The approach is either a RIP, which is led by the transmitter, or an IRRP, which is led by the IESO. If more than one sub-region was identified in the NA phase, it is possible that a different approach could be taken for different sub-regions.

The IRRP phase will generally assess infrastructure (wires) versus resource (non-wires alternatives) options at a higher or more macro level, but sufficient to permit a comparison of options. If the IRRP phase identifies that infrastructure options may be most appropriate to meet a need, the RIP phase will conduct detailed planning to identify and assess the specific wires alternatives and recommend a preferred wires solution. Similarly, resource options that the IRRP identifies as best suited to meet a need are then further planned in greater detail by the IESO.

[1] Also referred to as Needs Screening

The IRRP phase also includes IESO led stakeholder engagement with municipalities, Indigenous communities, business sectors and other interested stakeholders in the region.

The RIP phase is the fourth and final phase of the regional planning process and involves discussion of previously identified needs and plans, identification of any new needs that may have emerged since the start of the planning cycle, and development of a wires plan to address the needs where a wires solution would be the best overall approach. This phase is led and coordinated by the transmitter and the deliverable is a comprehensive report of a wires plan for the region. Once completed, this report is also referenced in transmitter's rate filing submissions and as part of LDC rate applications with a planning status letter provided by the transmitter.

To efficiently manage the regional planning process, Hydro One has been undertaking wires planning activities in collaboration with the IESO and/or LDCs for the region as part of and/or in parallel with:

- Planning activities that were already underway in the region prior to the new regional planning process taking effect;
- The NA, SA, and LP phases of regional planning;
- Participating in and conducting wires planning as part of the IRRP for the region or sub-region;
- Working and planning for connection capacity requirements with the LDCs and transmission connected customers.

Figure 2-1 illustrates the various phases of the regional planning process (NA, SA, IRRP, and RIP) and their respective phase trigger, lead, and outcome.

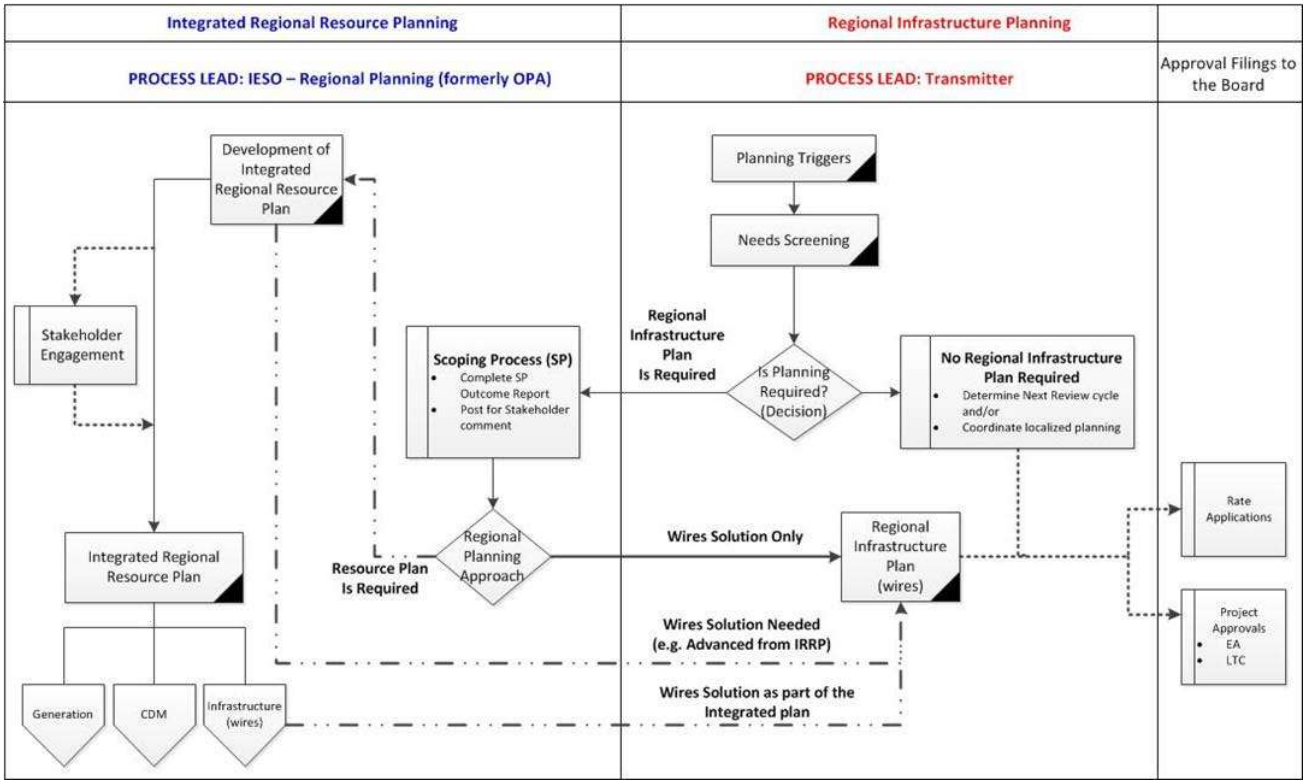


FIGURE 2-2: REGIONAL PLANNING PROCESS FLOWCHART

Upon the conclusion of Needs Assessment, the Study Team agreed that the need in the region (i.e., Greater London sub-region restoration need) was local in nature and no further regional coordination was required. Subsequently, a Local Planning report was completed to specifically address the restoration need. Therefore, Scoping Assessment and Integrated Regional Resource Plan was not carried out for London Area in this cycle.

2.3. RIP Methodology

The RIP phase consists of a four step process (see Figure 2-3) as follows:

1) Data Gathering: The first step of the process is the review of planning assessment data collected in the previous phase of the regional planning process. Hydro One collects this information and reviews it with the Study Team to reconfirm or update the information as required. The data collected includes:

   - Net peak demand forecast at the transformer station level. This includes the effect of any distributed generation or conservation and demand management programs.
   - Existing area network and capabilities including any bulk system power flow assumptions.
   - Other data and assumptions as applicable such as asset conditions; load transfer capabilities, and previously committed transmission and distribution system plans.

2) Technical Assessment: The second step is a technical assessment to review the adequacy of the regional system including any previously identified needs. Depending upon the changes to load forecast or other relevant information, regional technical assessment may or may not be required or be limited to specific issue only. Additional near and mid-term needs may be identified in this phase.
3) Alternative Development: The third step is the development of wires options to address the needs and to come up with a preferred alternative based on an assessment of technical considerations, feasibility, environmental impact and costs.
4) Implementation Plan: The fourth and last step is the development of the implementation plan for the preferred alternative.

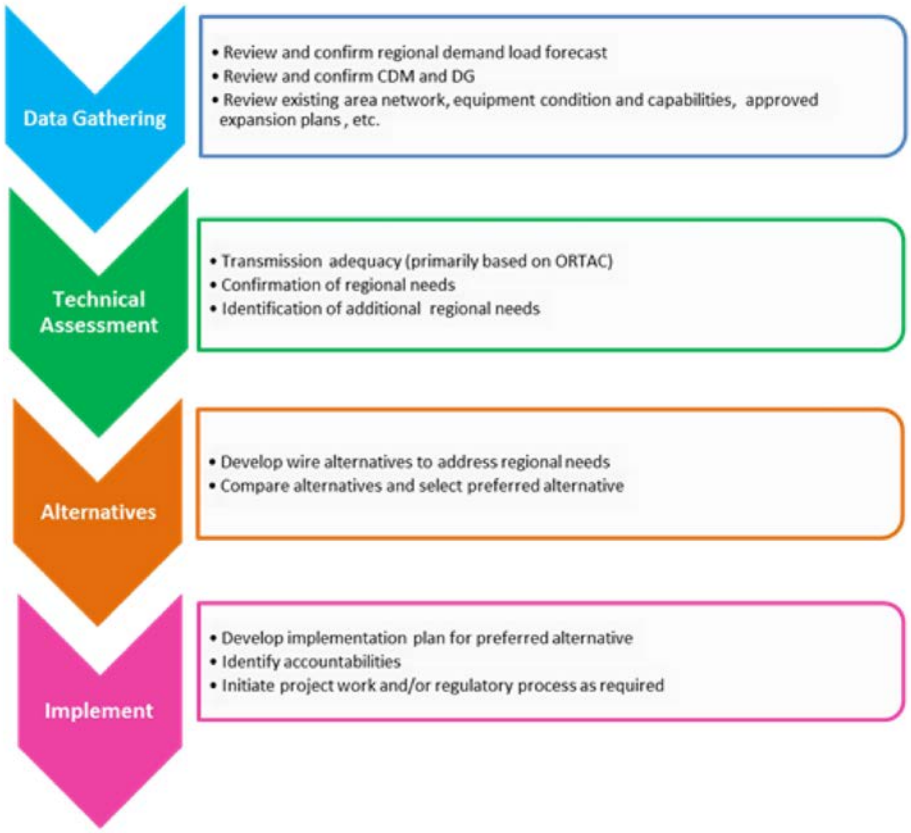


FIGURE 2-3: RIP METHODOLOGY

3. Transmission System Supplying London Area

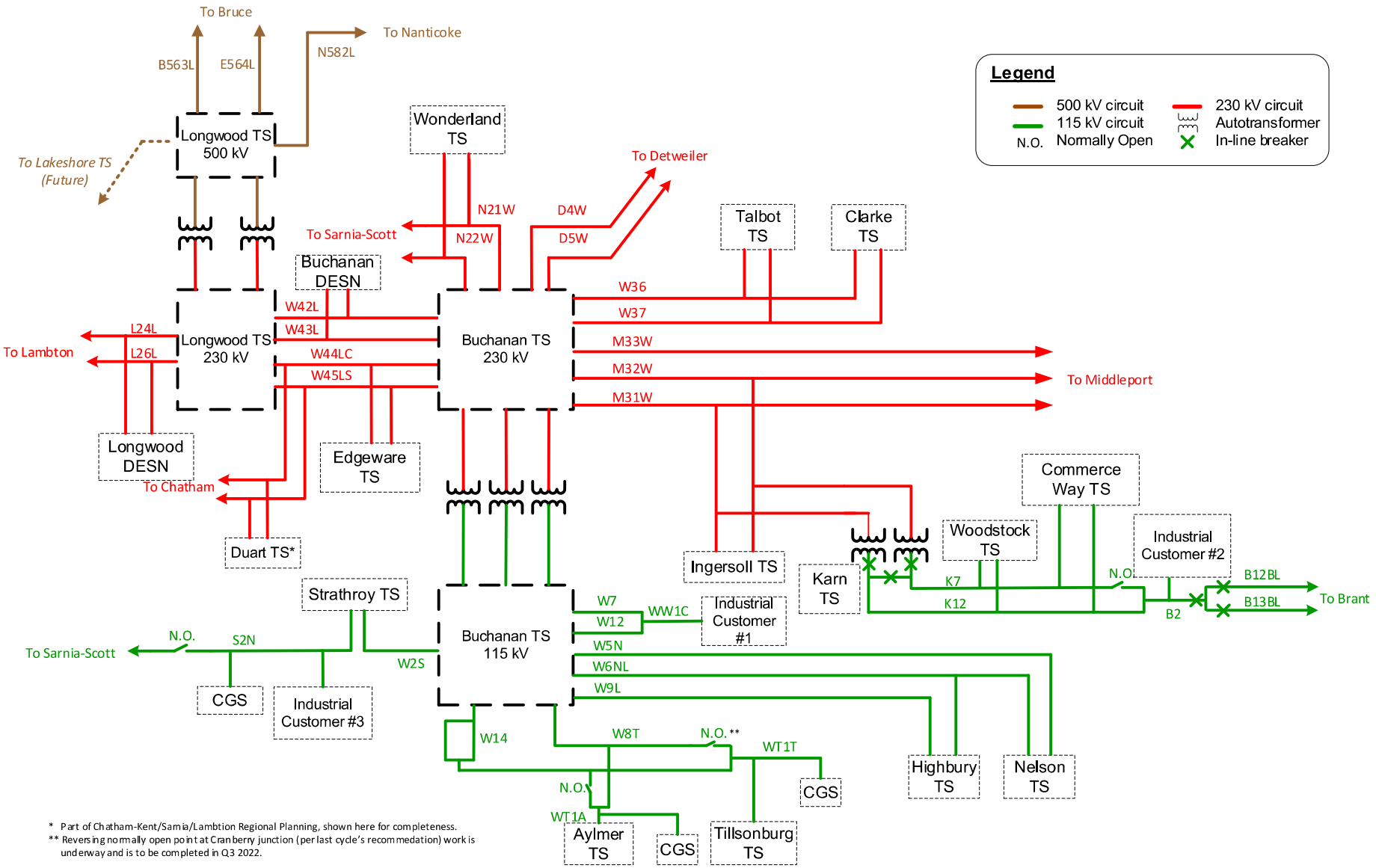
The hub of the electrical system in London Area is Longwood Transformer Station ("TS"). Longwood TS provides the single connection to the 500 kV system in this area, through which provides majority of the resources to meet the demand in the London Area and rest of southwestern Ontario. The 500 kV system is part of the bulk power system and although it is not studied as part of this RIP, it should be noted that in 2021, the IESO identified a need to expand the 500 kV bulk system to supply the load growth in the Leamington area by 2030. The IESO recommended a new 500 kV single-circuit line connecting Longwood TS and Lakeshore TS and two 500/230 kV autotransformers to be constructed at Lakeshore TS.

London Area is supplied by a network of 230 kV and 115 kV circuits which is connected to Longwood TS through five 500/230 kV autotransformers. Autotransformers at Buchanan TS and Karn TS provide the necessary 230/115 kV autotransformation. Step-down transformer stations are connected to both 230 kV and 115 kV systems to bring the power to distribution level of 27.6 kV to serve the area. There are fourteen Hydro One step-down TS's, three transmission connected industrial load customers and three transmission connected generators in the London Area. The London Area Region summer coincident peak demand in 2021 was about 1152 MW, adjusted to extreme weather.

The existing facilities in the London Area are summarized below and depicted in the single line diagram shown in Figure 3-4:

- Fourteen step-down transformer stations supply the London Area load: Aylmer TS, Buchanan TS, Clarke TS, Commerce Way TS, Edgeware TS, Highbury TS, Ingersoll TS, Longwood TS, Nelson TS, Strathroy TS, Talbot TS (two Dual Element Spot Networks, DESN 1 and DESN 2), Tillsonburg TS, Wonderland TS, and Woodstock TS.
- Three directly connected industrial customer loads are connected in the London Area: Enbridge Keyser CTS, Lafarge Woodstock CTS and Toyota Woodstock TS.
- There are three existing transmission-connected generating stations in the London Area as follows:
    - Suncor Adelaide GS is a 40 MW wind farm connected to 115 kV circuit west of Strathroy TS
    - Port Burwell GS is a 99 MW wind farm connected to 115 kV circuit near Tillsonburg TS
    - Silver Creek GS is a 10 MW solar generator connected to 115 kV circuit near Aylmer TS

Although depicted, Duart TS is not included in the London Area study and will be studied as part of the Chatham-Kent/Lambton/Sarnia (CKLS) Area Regional Planning.



* Part of Chatham-Kent/Sarnia/Lambtion Regional Planning, shown here for completeness.
** Reversing normally open point at Cranberry junction (per last cycle's recommedation) work is underway and is to be completed in Q3 2022.

FIGURE 3-4: SIMPLIFIED SINGLE LINE DIAGRAM OF THE LONDON AREA REGION'S TRANSMISSION NETWORK

4. Transmission Projects Completed and/or Underway Over the Last Ten Years

OVER THE LAST TEN YEARS, A NUMBER OF TRANSMISSION PROJECTS HAVE BEEN PLANNED AND UNDERTAKEN BY HYDRO ONE AIMED TO MAINTAIN THE RELIABILITY AND ADEQUACY OF ELECTRICITY SUPPLY IN THE LONDON AREA REGION.

A summary and description of the major projects completed and/or currently underway over the last ten years is provided below.

- Strathroy TS like-for-like replacement of 25/42 MVA 115/27.6 kV transformer T2 due to failure completed in 2012.
- Ingersoll TS like-for-like replacement of 75/125 MVA 230/27.6 kV transformers T5 & T6 that were approximately 35 years old. The transformers were identified to have a design weakness and were replaced to mitigate the risk of failures, improve restoration time and maintain system performance completed in 2012.
- Woodstock TS 50/83 MVA 115/27.6 kV transformers T1 & T2 that were approximately 50 years old and were deemed end-of-life were replace like-for-like in 2014.
- Aylmer TS transformers and low-voltage switchyard replacement project competed in 2017.
- Strathroy TS failed transformer T1 and low-voltage switchyard replacement project completed in 2019.
- Wonderland TS failed transformer T6 was replaced in 2019.
- St. Thomas TS was decommissioned and 115 kV circuit W14 re-termination work was completed in 2020.
- Sarnia Scott TS to Buchanan TS 230 kV circuits N21W/N22W tower structures refurbishment project was completed in 2021.
- Nelson TS station refurbishment project will be completed in 2022.
- Tillsonburg TS new low-voltage capacitor banks installed in 2021 and switchyard component replacement project to be completed in 2022.
- Longwood TS protection and control replacement project to be completed in 2023.
- Edgeware TS protection and control replacement project to be completed in 2024.

5. London Area Demand

5.1. Load Forecast

The electricity demand in the London Area Region is anticipated to grow at an average rate of 1% over the next ten years. The London Area Region has been historically a summer-peaking region. Figure 5-5 shows the London Area Region's summer coincident peak load forecast for the 2022 – 2031 study period (extreme weather corrected peak) developed during the RIP phase. The load forecast prepared for the RIP phase is approximately 5% lower than the Needs Assessment load forecast due to higher forecasted contributions from CDM and DG.

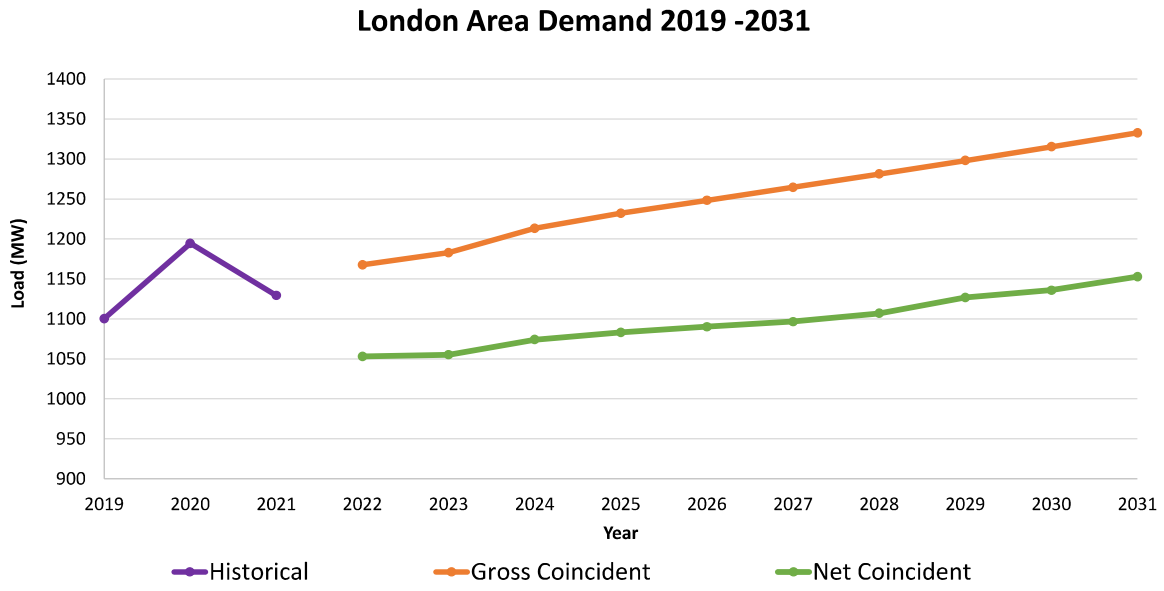


FIGURE 5-5: LONDON AREA REGION LOAD FORECAST

The load forecast shows that the region peak summer load increases from 1053 MW in 2022 to 1153 MW by 2031. The corresponding non-coincident summer peak loads increase from 1159 MW to about 1250 MW over the same period. The non-coincident and coincident net load forecasts for the individual stations in the London Area Region are given in Appendix D, Table D-1 and Table D-2.

LDCs in this region emphasized that impact of electrification have not been factored into the current RIP load forecasts. Should initiatives such as gas furnace conversion and continued electric vehicle adoption accelerate, transmission system adequacy will have to be re-assessed.

5.2. Forecast Assumptions

The following assumptions are made:

- The study period for the RIP assessment is 2022 – 2031.
- The 2021 summer station peak load is considered as a reference point and was adjusted for extreme weather impact (2.12% in 2021). Growth rates were extrapolated from LDCs' load forecasts via linear regression and are applied onto to the reference point to develop a gross load forecast.
- Distributed generation ("DG") refers to small-scale power generation connected in the distribution system which is located close to where the electricity is consumed. Both conservation & demand management ("CDM") as well as DG can reduce the amount of load that needs to be supplied and their contributions, as provided by the IESO, are directly net against the gross load forecast to develop a net load station forecast. A non-coincident version of the net load forecast was used to assess the station capacity.
- Load data for transmission-connected industrial customers in the region was assumed to be consistent with historical peak loads.
- All facilities that are identified in Section 4 and that are planned to be placed in-service within the study period are assumed to be in-service.
- Normal planning supply capacity for transformer stations is determined by the summer 10-day Limited Time Rating ("LTR"), assuming a 90% lagging power factor.

6. Regional Needs and Plans

THIS SECTION DISCUSSES ELECTRICAL INFRASTRUCTURE NEEDS IN THE LONDON AREA AND SUMMARIZES THE PLANS DEVELOPED TO ADDRESS THESE NEEDS.

This section outlines and discusses electrical infrastructure needs in the London Area and plans to address these needs for the study period of 2022 – 2031.

Based on the gross regional non-coincident load forecast, Clarke TS is forecasted to exceed its 10-Day LTR in 2023 and Highbury TS and Tillsonburg TS will also exceed station LTR in the medium term. However, these stations are expected to be adequate to meet the net load forecast for the remainder of the study period as planned CDM targets and DG contributions continue to offset the load growth. Overall, as the net load forecast prepared for the RIP phase is approximately 5% lower than the Needs Assessment load forecast, no new need was identified.

During the development of this RIP, issue about available capacity was raised at a number of stations, most notably Strathroy TS and Tillsonburg TS. Available capacity and its allocation among LDCs are governed by OEB's Transmission System Code and are separate from the regional planning process. Hydro One Transmission will continue to engage with its customers following the conclusion of this RIP.

Table 6-2 provides a summary of the needs identified in this cycle and the corresponding sub-sections where recommendations and plans are discussed. The planned in-service dates are tentative and will be finalized closer to project commencement in coordination with impacted LDCs.

TABLE 6-2: IDENTIFIED NEAR AND MID-TERM NEEDS IN LONDON AREA REGION

No.	Need	Need Date	Section
1	Talbot TS station capacity	Today	6.1
2	Greater London sub-region restoration need	Today	6.2
3	End-of-life equipment replacement	Vary	6.3

6.1. Talbot TS

6.1.1. Sustainment Need

The existing Talbot TS comprises two 230 kV/27.6 kV DESNs (T1/T2 and T3/T4) and supplies electricity to London Hydro customers. It is supplied by two 230 kV circuits W36 and W37. Step-down transformers T3 and T4 have been in-service from 1979 and are in poor condition and approaching end-of-life. A number of 27.6 kV breakers and protection equipment have also been identified for replacement.

6.1.2. Station Capacity Need

The station capacity for T1/T2 and T3/T4 are 113 MW and 161 MW respectively. The summer regional non-coincident peak load of the two DESNs in 2021 are 119 MW and 168 MW. According

to the regional non-coincident net load forecast in the study period, Talbot TS T1/T2 DESN is expected to exceed its station capacity throughout the study period and Talbot TS T3/T4 DESN will exceed its capacity in 2029.

6.1.3. Recommendation

The station capacity need was first identified in the 2020 Needs Assessment and was primarily driven by temporary load transfer from neighbouring station (Nelson TS). As noted in Section 4, Nelson TS underwent refurbishment which includes converting the low-voltage supply from 13.8 kV to 27.6 kV. During the construction period, significant portion of the load that was originally supplied by this station was transferred to Clarke TS and Talbot TS. The newly refurbished Nelson TS was placed in-service in December 2018 and as more 27.6 kV distribution feeders becomes available in downtown London, London Hydro confirmed load will be transferred back to Nelson TS and additional transformation capacity is not required at this time.

The Study Team recommends Hydro One to proceed with like-for-like replacement of T3 and T4 at Talbot TS. Project is expected to be completed in 2028. In addition, Hydro One will look for opportunities to coordinate this project with London Hydro for the metalclad switchgear replacement.

6.2. Greater London Sub-region Restoration Need

6.2.1. Description

The 230 kV double-circuit line,W36 and W37, emanates from Buchanan TS and supplies Talbot TS (both DESNs) and Clarke TS. Should the simultaneous loss of W36/W37 occurs, all of the loads supplied by the Clarke TS and Talbot TS, which amounts to over 340 MW[2], would be interrupted by configuration. The potential load loss exceeds the ORTAC 30-minute restoration criteria.

6.2.2. Recommendation

This need was first reported in the first cycle of regional planning for the London Area Region in 2015. The 2017 IRRP working group recommended installing switching devices and feeder extensions on the distribution system. The IRRP working group also acknowledged while these measures will not fully address the restoration need, they will substantially improve the restoration capability in a cost-effective manner.

The restoration need persists in the current regional planning cycle and was further re-assessed with London Hydro via the Local Planning process. The Study Team noted a significant portion of the interrupted load could be restored by a neighbouring unaffected station, Highbury TS, if its station capacity limit is lifted. This option was not pursued further at this time as work required will be extensive and cost prohibitive. Hydro One undertook a detailed historical equipment performance review to assess the probability of common-mode failure that would lead to simultaneous loss of W36 and W37. It was concluded that the only common-mode failure that may result in the simultaneous loss of both W36/W37 is the failure of the steel poles that carry

[2] 2021 historical coincident peak load.

the two circuits and probability of this event is very low. Therefore, the Study Team recommends no action is required at this time.

6.3. End-of-Life Equipment Replacement

6.3.1. Buchanan TS

6.3.1.1. Description

Buchanan TS is a major 230/115 kV transformer station in the area that supplies load stations in London Area. The station houses three 230/115 kV auto-transformers, three 230 kV capacitor banks, one 115 kV capacitor bank and two 230/27.6 kV step-down transformers. There are sixteen 230 kV oil breakers and nine SF6 circuit breakers in the 230 kV switchyard; seventeen oil circuit and three SF6 circuit breakers in the 115 kV switchyard.

Two of the 3 auto-transformers T2 and T3 are 48 and 54 years old respectively, are in poor condition, and approaching the end of life.

6.3.1.2. Recommendation

To address poor equipment performance of deteriorating equipment, Hydro One plans to replace two 230kV autotransformers, spill containment pits, AC and DC station service equipment, as well as some obsolete protection, controls and telecom equipment.

6.3.2. Clarke TS

6.3.2.1. Description

Clarke TS is a DESN station located in the northern part of the London Area. The station is supplied by two 230 kV circuits W36 and W37. The station supplies electricity to London Hydro and Hydro One Distribution customers.

The two 230/27.6 kV 50/83 MVA transformers T3 and T4 are 55 years old, in poor condition, and approaching end of life. Some of the protection equipment is also found to be obsolete.

6.3.2.2. Recommendation

To address the assets in poor condition and end-of-life, Hydro One plans to replace step-down transformers like-for-like, associated disconnect switches, 27.6 kV switchyard components including breakers, station services, capacitors and protections. Replacement plan will be closely coordinated with affected LDCs and the expected completion date is 2028.

6.3.3. Wonderland TS

6.3.3.1. Description

Wonderland TS is a DESN station located in the western part of the London Area. The station is supplied by two 230 kV circuits N21W and N22W. The station supplies electricity to London Hydro and Hydro One Distribution customers.

The Wonderland T5/T6 DESN facility was originally built in the 1960s and its equipment is degrading in condition. The 50/83 MVA T6 power transformer was replaced in 2004 due to failure. The companion transformer, T5, failed in July 2019 and was subsequently replaced. The existing air insulated 27.6 kV switchgear, majority of which are original installations have reached end-of-life due to deteriorated condition and has limited availability of parts for ongoing support and maintenance. All site protection and control equipment, consisting of first generation electro-mechanical relaying are deemed end-of-life, obsolete and require replacement. During the early project development phase, London Hydro and Hydro One Distribution were consulted to assess if there is a capacity need to replace the 50/83 MVA transformers with 75/125 MVA and it was concluded there is no such need at the time.

6.3.3.2. Recommendation

To address the end-of-life need, Hydro One plans to replace the Wonderland 27.6 kV switchyard. Replacement plan will be closely coordinated with affected LDCs and the expected completion date is 2026.

6.3.4. London Area East OPGW Infrastructure

6.3.4.1. Description

M31W and M32W are 230 kV network circuits that connect Buchanan TS and Middleport Port TS. Ingersoll TS and Karn TS are tapped off M31W/M32W at Salford Junction. High voltage 230/115 kV autotransformers are located at Karn TS provide the necessary transformation from the 230 kV system to the Woodstock and Commerce Way 115 kV system.

6.3.4.2. Recommendation

To improve the reliability of power system telecom network, Hydro One plans to install 9km of OPGW fibre from Salford Junction to Ingersoll TS and remove the existing licensed microwave link connects Ingersoll TS to Buchanan TS. Project is expected to be completed in 2027.

6.3.5. London Area West OPGW Infrastructure

6.3.5.1. Description

Several transmission lines in the London area that emanate from Buchanan TS currently rely on leased legacy dedicated metallic cable infrastructure for DC remote trip protections. These include 230kV circuits W36/W37 that connect to Talbot TS and Clarke TS, 115 kV circuits W5N/W6NL that connect to Nelson TS and Highbury TS, 115 kV circuit W2S that connects to Strathroy TS and 230kV circuit N21W connecting to Sarnia Scott TS.

6.3.5.2. Recommendation

To improve the reliability of power system telecom network, Hydro One plans to establish a geographically diverse and fully redundant fibre optic network for protection and SCADA applications. A combination of Hydro One's existing and new OPGW-based fibre and two leased third-party fibre links would be utilized. The existing metallic cable will be removed and the project is expected to be completed in 2029.

7. Conclusions and Next Steps

THIS REGIONAL INFRASTRUCTURE PLAN CONCLUDES THE REGIONAL PLANNING PROCESS FOR THE LONDON AREA REGION.

The major infrastructure investments recommended by the Study Team in the near and mid-term planning horizon are provided in Table 7-3 below are all end of life needs, along with their planned in-service date. The planned in-service dates are tentative and will be finalized closer to project commencement in coordination with impacted LDCs.

TABLE 7-3: RECOMMENDED PLANS IN LONDON AREA REGION OVER THE NEXT 10 YEARS

Stations / Lines	Scope	In-service
Buchanan TS	Replacement of autotransformers and associated equipment	2028
Clarke TS	Replacement of step-down transformers, associated disconnect switches, low-voltage switchyard components	2028
Talbot TS	Replacement of step-down transformers (T3/T4), associated disconnect switches, low-voltage switchyard components	2028
Wonderland TS	Low-voltage switchyard components replacement	2026
M31W/ M32W (Salford Junction x Ingersoll)	London Area East OPGW Infrastructure	2027
W36/W37/W5 NL/W6NL/W2S/ N21W	London Area West Telecom OPGW Infrastructure Installation	2029

The Study Team recommends Hydro One to continue with the implementation of infrastructure investments listed in Table 7-3.

In accordance with the Regional Planning process, the RIP should be reviewed and/or updated at least every five years. The Region will continue to be monitored and should there be a need that emerges earlier due to a change in load forecast or any other reason, the next regional planning cycle will be triggered in advance of the five-year timeline.

References

[1] London Area Needs Assessment [2015]
https://www.hydroone.com/abouthydroone/CorporateInformation/regionalplans/london/Documents/Needs%20Assessment%20Report%20-%20London%20Region%20-%20April%202,%202015.pdf

[2] Strathroy TS Transformer Capacity Local Planning [2016]
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[3] Woodstock Sub-region Restoration Local Planning [2017]
https://www.hydroone.com/abouthydroone/CorporateInformation/regionalplans/london/Documents/Woodstock%20Restoration%20Local%20Planning%20Report%20(Final)%2020170519.pdf

[4] London Area Integrated Regional Resource Plan [2017]
https://www.ieso.ca/-/media/Files/IESO/Document-Library/regional-planning/London-Area/Final-Greater-London-IRRP-20170120.ashx

[5] London Area Needs Assessment [2020]
https://www.hydroone.com/abouthydroone/CorporateInformation/regionalplans/london/Documents/Needs-Assessment-Report-London-2020.pdf

[6] Greater London Sub-region Restoration Local Planning [2021]
https://www.hydroone.com/abouthydroone/CorporateInformation/regionalplans/london/Documents/Local_Planning_Report_Greater_London_Subregion.pdf

Appendix A. Stations in the London Area Region

Station	Voltage (kV)	Supply Circuits
Aylmer TS	115/27.6	W8T
Buchanan TS	230/27.6	W42L/W43L
Clarke TS	230/27.6	W36/W37
Commerce Way TS	115/27.6	K7/K12
Edgeware TS	230/27.6	W44LC/W45LC
Highbury TS	115/27.6	W6NL/W9L
Ingersoll TS	230/27.6	M31W/M32W
Longwood TS	230/27.6	L24L/L26L
Nelson TS	115/27.6	W5N/W6NL
Strathroy TS	115/27.6	W2S
Talbot TS (T1/T2 and T3/T4)	230/27.6	W36/W37
Tillsonburg TS	115/27.6	W14
Wonderland TS	230/27.6	N21W/N22W
Woodstock TS	115/27.6	K7/K12

Appendix B. Transmission Lines in the London Area Region

Circuit Designations	Location	Voltage (kV)
N21W, N22W	Scott TS to Buchanan TS	230
W42L, W43L	Longwood TS to Buchanan TS	230
W44LC	Longwood TS to Chatham TS to Buchanan TS	230
W45LS	Longwood TS to Spence SS to Buchanan TS	230
W36, W37	Buchanan TS to Talbot TS and Clarke TS	230
D4W, D5W	Buchanan TS to Detweiler TS	230
M31W, M32W, M33W	Buchanan TS to Middleport TS	230
W2S	Buchanan TS to Strathroy TS	115
W5N	Buchanan TS to Nelson TS	115
W6NL	Buchanan TS to Highbury TS to Nelson TS	115
W9L	Buchanan TS to Highbury TS	115
W7, W12	Buchanan TS to CTS	115
WW1C	Buchanan TS to CTS	115
W8T	Buchanan TS to ESWF JCT	115
WT1T	Cranberry Junction to Tillsonburg TS	115
W14	Buchanan TS to Cranberry Junction	115
WT1A	Aylmer TS to Lyons JCT	115
K7, K12	Karn TS to Commerce Way TS	115

Appendix C. Distributors in London Area Region

Distributor Names	Station Name	Connection Type
Entegrus Power Lines Inc. [Middlesex]	Edgeware TS	Tx
	Longwood TS	Dx
	Strathroy TS	Dx
		Tx
ERTH Power Corporation	Aylmer TS	Tx
	Buchanan TS	Dx
	Edgeware TS	Dx
	Ingersoll TS	Dx
	Tillsonburg TS	Dx
Hydro One Networks Inc.	Aylmer TS	Tx
	Buchanan TS	Tx
	Clarke TS	Tx
	Edgeware TS	Tx
	Highbury TS	Tx
	Ingersoll TS	Tx
	Longwood TS	Tx
	Strathroy TS	Tx
	Tillsonburg TS	Tx
	Wonderland TS	Tx
	Woodstock TS	Tx
London Hydro Inc.	Buchanan TS	Dx
		Tx
	Clarke TS	Tx
	Edgeware TS	Dx
	Highbury TS	Dx
		Tx
	Nelson TS	Tx
	Talbot TS	Tx
	Wonderland TS	Dx
		Tx
Tillsonburg Hydro Inc.	Tillsonburg TS	Tx

Appendix D. London Area Region Load Forecast

TABLE D1: LONDON AREA REGIONAL NON-COINCIDENT NET LOAD FORECAST

Transformer Station	LTR* (MW)	Quantities	Reference	Near Term Forecast (MW)					Medium Term Forecast (MW)				
			2021**	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Aylmer TS		Gross	32.46	32.98	33.51	34.05	34.61	35.16	35.73	36.31	36.90	37.49	38.10
		DG		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
		CDM		0.67	1.06	1.38	1.66	1.93	2.22	2.49	2.75	2.99	3.04
	40	Net		32.29	32.44	32.65	32.92	33.22	33.49	33.80	34.13	34.48	35.03
Buchanan TS		Gross	131.49	133.22	134.96	136.73	138.52	140.34	142.17	144.04	145.92	147.84	149.77
		DG		14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74
		CDM		2.70	4.26	5.54	6.65	7.69	8.85	9.86	10.87	11.81	11.96
	173	Net		115.77	115.96	116.45	117.12	117.90	118.58	119.44	120.31	121.29	123.07
Clarke TS		Gross	102.45	103.58	104.72	105.88	107.05	108.23	109.43	110.64	111.86	113.10	114.35
		DG		3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40
		CDM		2.10	3.30	4.29	5.14	5.93	6.81	7.57	8.33	9.03	9.13
	103	Net		98.08	98.03	98.20	98.51	98.91	99.22	99.67	100.13	100.67	101.82
Commerce Way TS		Gross	34.55	35.12	35.69	36.27	36.87	37.47	38.08	38.70	39.33	39.97	40.63
		DG		2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
		CDM		0.71	1.13	1.47	1.77	2.05	2.37	2.65	2.93	3.19	3.25
	106	Net		31.46	31.62	31.86	32.15	32.47	32.77	33.11	33.46	33.84	34.44
Edgeware TS		Gross	102.45	103.93	105.43	121.83	126.36	127.92	129.52	131.13	132.77	134.43	136.12
		DG		4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.44
		CDM		2.11	3.33	4.93	6.07	7.01	8.06	8.98	9.89	10.74	10.87
	180	Net		97.35	97.64	112.43	115.81	116.44	116.98	117.68	118.40	119.22	120.81
Highbury TS		Gross	74.76	75.72	76.70	77.69	78.69	79.70	80.72	81.76	82.81	83.88	84.96
		DG		5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51
		CDM		1.53	2.42	3.15	3.78	4.37	5.02	5.60	6.17	6.70	6.79
	80	Net		68.68	68.77	69.02	69.39	69.82	70.18	70.65	71.13	71.66	72.67
Ingersoll TS		Gross	69.40	71.92	74.53	77.24	80.05	82.96	85.98	89.10	92.34	95.70	99.17
		DG		12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.93
		CDM		1.46	2.35	3.13	3.85	4.55	5.35	6.10	6.88	7.64	7.92
	158	Net		57.51	59.24	61.17	63.26	65.47	67.68	70.05	72.51	75.11	78.33
Longwood TS		Gross	40.27	41.14	42.04	42.95	43.88	44.83	45.80	46.80	47.81	48.85	49.91
		DG		1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.12
		CDM		0.83	1.33	1.74	2.11	2.46	2.85	3.20	3.56	3.90	3.99
	121	Net		39.15	39.55	40.05	40.61	41.21	41.79	42.43	43.09	43.79	44.80
Nelson TS		Gross	53.39	53.78	54.17	54.56	54.95	55.34	55.74	56.14	56.55	56.96	57.37
		DG		17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55
		CDM		1.09	1.71	2.21	2.64	3.03	3.47	3.84	4.21	4.55	4.58
	107	Net		35.14	34.91	34.80	34.76	34.77	34.73	34.75	34.79	34.86	35.24
Strathroy TS		Gross	39.63	40.19	40.77	41.35	41.94	42.54	43.15	43.77	44.39	45.03	45.67
		DG		8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63
		CDM		0.81	1.29	1.67	2.01	2.33	2.69	3.00	3.31	3.60	3.65
	56	Net		30.75	30.86	31.05	31.30	31.58	31.84	32.14	32.46	32.80	33.40
Talbot T1/T2		Gross	121.81	122.79	123.77	124.77	125.78	126.79	127.81	128.84	129.87	130.92	131.97
		DG		-	-	-	-	-	-	-	-	-	-
		CDM		2.49	3.90	5.05	6.04	6.95	7.95	8.82	9.68	10.46	10.54
	113	Net		120.30	119.87	119.72	119.73	119.84	119.85	120.02	120.20	120.46	121.43
Talbot T3/T4		Gross	172.17	173.87	175.59	177.33	179.08	180.85	182.64	184.45	186.27	188.11	189.97
		DG		12.28	12.28	12.28	12.28	12.28	12.28	12.28	0.52	0.52	0.45
		CDM		3.52	5.54	7.18	8.60	9.91	11.37	12.63	13.88	15.03	15.18
	161	Net		158.06	157.77	157.86	158.20	158.66	158.99	159.54	171.87	172.56	174.35
Tillsonburg TS		Gross	94.95	96.18	97.42	98.68	99.95	101.25	102.56	103.88	105.23	106.59	107.96
		DG		3.54	3.54	3.54	3.54	3.54	3.54	0.97	0.97	0.97	0.91
		CDM		1.95	3.07	4.00	4.80	5.55	6.38	7.11	7.84	8.51	8.62
	103	Net		90.68	90.80	91.14	91.61	92.16	92.63	95.80	96.42	97.10	98.43
Wonderland TS		Gross	91.36	92.76	94.17	95.61	97.08	98.56	100.07	101.60	103.15	104.73	106.33
		DG		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.87
		CDM		1.88	2.97	3.87	4.66	5.40	6.23	6.95	7.68	8.37	8.49
	115	Net		88.87	89.20	89.74	90.41	91.16	91.84	92.64	93.47	94.36	95.96
Woodstock TS		Gross	64.10	64.68	65.27	65.87	66.47	67.07	67.69	68.30	68.92	69.55	70.19
		DG		2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.23	1.60
		CDM		1.31	2.06	2.67	3.19	3.68	4.21	4.68	5.13	5.56	5.61
	81	Net		61.08	60.92	60.91	60.99	61.11	61.18	61.34	61.50	61.77	62.98
Industrial Customer #1			12	12	12	12	12	12	12	12	12	12	12
Industrial Customer #2			19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Industrial Customer #3			2	2	2	2	2	2	2	2	2	2	2
London Area Total				1159	1161	1181	1191	1199	1206	1217	1238	1248	1267

*Station LTR is based on 90% power factor

** Adjusted to extreme weather

Note (1) Edgeware TS step increases in 2024 & 2025 reflects a new connection request of 20MW.

TABLE D2: LONDON AREA REGIONAL COINCIDENT NET LOAD FORECAST

Transformer Station	Quantities	Reference	Near Term Forecast (MW)					Medium Term Forecast (MW)				
		2021^	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Aylmer TS	Gross	25.99	26.41	26.83	27.27	27.71	28.16	28.61	29.07	29.54	30.02	30.51
	DG		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	CDM		0.54	0.85	1.10	1.33	1.54	1.78	1.99	2.20	2.40	2.44
	Net		25.85	25.97	26.14	26.36	26.59	26.81	27.06	27.32	27.60	28.05
Buchanan TS	Gross	129.03	130.72	132.43	134.17	135.92	137.70	139.51	141.34	143.19	145.06	146.96
	DG		14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74	14.74
	CDM		2.65	4.18	5.43	6.53	7.55	8.68	9.68	10.67	11.59	11.74
	Net		113.33	113.51	113.99	114.65	115.42	116.08	116.92	117.78	118.73	120.48
Clarke TS	Gross	86.32	87.27	88.24	89.21	90.20	91.20	92.20	93.22	94.25	95.29	96.35
	DG		3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40
	CDM		1.77	2.78	3.61	4.33	5.00	5.74	6.38	7.02	7.61	7.70
	Net		82.11	82.06	82.21	82.47	82.80	83.07	83.45	83.84	84.29	85.26
Commerce Way TS	Gross	32.18	32.71	33.24	33.78	34.34	34.90	35.47	36.05	36.63	37.23	37.84
	DG		2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
	CDM		0.66	1.05	1.37	1.65	1.91	2.21	2.47	2.73	2.97	3.02
	Net		29.10	29.25	29.47	29.74	30.04	30.32	30.64	30.96	31.32	31.87
Edgeware TS	Gross	102.45	103.93	105.43	121.83	126.36	127.92	129.52	131.13	132.77	134.43	136.12
	DG		4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.44
	CDM		2.11	3.33	4.93	6.07	7.01	8.06	8.98	9.89	10.74	10.87
	Net		97.35	97.64	112.43	115.81	116.44	116.98	117.68	118.40	119.22	120.81
Highbury TS	Gross	74.61	75.57	76.54	77.53	78.52	79.53	80.56	81.59	82.64	83.71	84.78
	DG		5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51
	CDM		1.53	2.41	3.14	3.77	4.36	5.01	5.59	6.16	6.69	6.77
	Net		68.52	68.61	68.87	69.24	69.66	70.03	70.49	70.97	71.50	72.50
Ingersoll TS	Gross	54.92	56.92	58.99	61.13	63.35	65.65	68.04	70.51	73.08	75.73	78.49
	DG		12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.93
	CDM		1.15	1.86	2.48	3.04	3.60	4.23	4.83	5.44	6.05	6.27
	Net		42.82	44.18	45.71	47.36	49.11	50.86	52.74	54.69	56.74	59.29
Longwood TS	Gross	37.74	38.56	39.39	40.25	41.12	42.01	42.93	43.86	44.81	45.78	46.77
	DG		1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.12
	CDM		0.78	1.24	1.63	1.98	2.30	2.67	3.00	3.34	3.66	3.74
	Net		36.62	36.99	37.46	37.99	38.55	39.09	39.69	40.31	40.96	41.92
Nelson TS	Gross	37.94	38.22	38.49	38.77	39.05	39.33	39.61	39.90	40.19	40.48	40.77
	DG		17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55	17.55
	CDM		0.77	1.21	1.57	1.88	2.16	2.47	2.73	2.99	3.23	3.26
	Net		19.90	19.73	19.65	19.63	19.63	19.60	19.62	19.65	19.70	19.96
Strathroy TS	Gross	30.42	30.86	31.30	31.74	32.20	32.66	33.13	33.60	34.08	34.57	35.06
	DG		8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63
	CDM		0.63	0.99	1.29	1.55	1.79	2.06	2.30	2.54	2.76	2.80
	Net		21.60	21.68	21.83	22.02	22.24	22.44	22.67	22.91	23.18	23.63
Talbot T1/T2	Gross	109.09	109.96	110.85	111.74	112.64	113.55	114.46	115.38	116.31	117.25	118.19
	DG		-	-	-	-	-	-	-	-	-	-
	CDM		2.23	3.50	4.53	5.41	6.22	7.12	7.90	8.67	9.37	9.44
	Net		107.74	107.35	107.22	107.23	107.33	107.34	107.49	107.65	107.88	108.75
Talbot T3/T4	Gross	152.03	153.53	155.05	156.58	158.13	159.69	161.27	162.87	164.48	166.10	167.75
	DG		12.28	12.28	12.28	12.28	12.28	12.28	12.28	0.52	0.52	0.45
	CDM		3.11	4.89	6.34	7.60	8.75	10.04	11.15	12.25	13.27	13.40
	Net		138.13	137.87	137.96	138.25	138.66	138.95	139.43	151.70	152.31	153.89
Tillsonburg TS	Gross	94.21	95.43	96.66	97.91	99.18	100.46	101.76	103.07	104.41	105.76	107.12
	DG		3.54	3.54	3.54	3.54	3.54	3.54	0.97	0.97	0.97	0.91
	CDM		1.93	3.05	3.97	4.76	5.50	6.33	7.06	7.78	8.45	8.56
	Net		89.95	90.07	90.40	90.87	91.41	91.88	95.05	95.66	96.34	97.66
Wonderland TS	Gross	87.66	89.00	90.36	91.74	93.14	94.57	96.01	97.48	98.97	100.49	102.02
	DG		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.87
	CDM		1.80	2.85	3.72	4.47	5.18	5.98	6.67	7.37	8.03	8.15
	Net		85.19	85.51	86.02	86.67	87.38	88.04	88.81	89.60	90.46	92.00
Woodstock TS	Gross	64.10	64.68	65.27	65.87	66.47	67.07	67.69	68.30	68.92	69.55	70.19
	DG		2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.23	1.60
	CDM		1.31	2.06	2.67	3.19	3.68	4.21	4.68	5.13	5.56	5.61
	Net		61.08	60.92	60.91	60.99	61.11	61.18	61.34	61.50	61.77	62.98
Industrial Customer #1		12	12	12	12	12	12	12	12	12	12	12
Industrial Customer #2		19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Industrial Customer #3		2	2	2	2	2	2	2	2	2	2	2
London Area Total			1053	1055	1074	1083	1090	1097	1107	1127	1136	1153

^ Adjusted to extreme weather
Note (1) Edgeware TS step increases in 2024 & 2025 reflects a new connection request of 20MW.

TABLE D3: CONSERVATION AND DEMAND FORECAST (SOURCE: IESO)

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2.0%	3.2%	4.1%	4.8%	5.5%	6.2%	6.8%	7.4%	8.0%	8.0%

Appendix F. List of Acronyms

Acronym	Description
A	Ampere
BES	Bulk Electric System
BPS	Bulk Power System
CDM	Conservation and Demand Management
CIA	Customer Impact Assessment
CGS	Customer Generating Station
CSS	Customer Switching Station
CTS	Customer Transformer Station
DESN	Dual Element Spot Network
DG	Distributed Generation
DSC	Distribution System Code
GATR	Guelph Area Transmission Reinforcement
GS	Generating Station
HV	High Voltage
IESO	Independent Electricity System Operator
IRRP	Integrated Regional Resource Plan
kV	Kilovolt
LDC	Local Distribution Company
LP	Local Plan
LTE	Long Term Emergency
LTR	Limited Time Rating
LV	Low Voltage
MTS	Municipal Transformer Station
MW	Megawatt
MVA	Mega Volt-Ampere
MVAR	Mega Volt-Ampere Reactive
NA	Needs Assessment
NERC	North American Electric Reliability Corporation
NGS	Nuclear Generating Station
NPCC	Northeast Power Coordinating Council Inc.
OEB	Ontario Energy Board
ORTAC	Ontario Resource and Transmission Assessment Criteria
PF	Power Factor
PPWG	Planning Process Working Group
RIP	Regional Infrastructure Plan
SA	Scoping Assessment
SIA	System Impact Assessment
SPS	Special Protection Scheme
SS	Switching Station
TS	Transformer Station
TSC	Transmission System Code

APPENDIX 2-C DISTRIBUTION SYSTEM PLAN

THI has filed its Distribution System Plan as a separate file. Please see file named:

THI Ex 2 Rate Base DSP -20240430F