EXHIBIT 2 – RATE BASE

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1. RATE BASE

1.1 RATE BASE OVERVIEW

The rate base used for the purpose of calculating the revenue requirement used in this Application follows *Chapter 2 of the Filing Requirements for Electricity Distribution Applications* issued by the Ontario Energy Board ("**Board**") on July 14, 2016 (the "**Filing Requirements**"). In accordance with the Filing Requirements, E.L.K. has calculated the rate base as an average of the net capital balances at the beginning and the end of the 2017 Test Year plus a working capital allowance, which is 7.5% of the sum of the cost of power and controllable expenses. The use of a 7.5% rate is consistent with the Board`s letter of June 3, 2015 and the Filing Requirements as issued by the OEB. At this time, E.L.K. has not completed a lead-lag study or equivalent analysis to support a different rate and has submitted this application using the default value of 7.5%.

E.L.K. was not previously directed by the OEB to undertake a lead/lag study.

E.L.K. converted to Modified International Financial Reporting Standards (MIFRS) on January 1, 2015 and has prepared this application under MIFRS.

E.L.K. has reported PP &E under historical acquisition costs for regulatory purposes in accordance with Article 315 in the Accounting Procedures Handbook. E.L.K. adopted a change in capitalization and useful lives policies as described in Exhibit 4 as part of E.L.K.'s 2012 Cost of Service Application (EB-2011-0099).

Net capital assets include in service assets that are associated with activities that enable the conveyance of electricity for distribution purposes minus accumulated depreciation and

contributed capital from third parties. For purposes of this Exhibit, distribution assets refer to those assets that are most directly related to the distribution system, such as poles, overhead and underground lines, and transformers. General plant refers to assets that support the operation of the distribution system such, as computer hardware and software, vehicles, buildings, equipment. Capital assets include property, plant and equipment ("**PP&E**") and intangible assets; these are referred to as "capital" or "fixed" assets throughout this evidence. The rate base calculation excludes any non-distribution assets. E.L.K. has not applied for, nor received, any Incremental Capital Module ("**ICM**") adjustments. Controllable expenses include operations and maintenance, billing and collecting, and administration expenses.

This exhibit will compare historical data with the 2016 Bridge Year and 2017 Test Year

E.L.K. has calculated its 2017 Test Year rate base to be $ 12,000,666. This rate base is also used to determine the proposed Revenue Requirement found at Exhibit 6. Table 2-1 illustrates E.L.K.'s Rate Base Calculations for the Test Year.

Table 2-1: 2017 Test Year Rate Base

	MIFRS
Particulars	**2017**
Net Capital Assets in Service:	
Opening Balance	9,439,589
Ending Balance	10,124,792
Average Balance	9,782,191
Working Capital Allowance	2,218,475
Total Rate Base	**12,000,666**

	MIFRS
Expenses for Working Capital	**2017**
Eligible Distribution Expenses:	
Distribution Expenses - Operation	642,274
Distribution Expenses - Maintenance	900,026
Billing & Collecting	598,394
Community Relations	11,822
Administrative & General Expenses	1,356,881
Donations - LEAP	100
Taxes othan than Income Taxes	17,410
Less Allocated Depreciation	- 42,396
Total Eligible Distribution Expenses	3,484,511
Power Supply Expenses	26,095,158
Total Expenses for Working Capital	**29,579,669**
Working Capital factor	7.50%
Total Working Capital Allowance	2,218,475

E.L.K. has provided its rate base calculations for the years 2012 Board Approved, 2012 Actual, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and 2017 Test Year in Table 2-2 below:

Table 2-2 - Summary of Rate Base

Particulars	2012 Board Approved	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge	2017 Test
Gross Capital Assets in Service							
Opening Balance	24,228,613	22,628,507	24,545,609	22,441,323	22,823,179	23,727,673	24,710,985
Ending Balance	24,767,466	22,967,594	22,441,323	22,823,179	23,727,673	24,710,985	25,777,455
Accumulated Deprecation							
Opening Balance	15,017,437	14,973,004	15,733,260	14,381,396	14,734,092	15,069,987	15,271,397
Ending Balance	15,541,497	15,831,094	14,381,396	14,734,092	15,069,987	15,271,397	15,652,663
Net Capital Assets in Service:							
Opening Balance	9,211,176	7,655,503	8,812,349	8,059,927	8,089,087	8,657,686	9,439,589
Ending Balance	9,225,970	7,136,501	8,059,927	8,089,087	8,657,686	9,439,589	10,124,792
Average Balance	9,218,573	7,396,002	8,436,138	8,074,507	8,373,386	9,048,637	9,782,190
Working Capital Allowance	3,326,515	2,601,096	2,850,295	4,111,993	3,935,807	3,507,893	2,218,475
Total Rate Base	**12,545,088**	**9,997,098**	**11,286,433**	**12,186,500**	**12,309,193**	**12,556,530**	**12,000,665**

The Rate Base for the 2017 Test Year has been forecasted to decrease $555,865 (5.0%) over the 2016 Bridge Year. Furthermore, the Rate Base for the 2017 Test Year has been forecasted to remain relatively neutral over the last Board Approved Rate Base. The reasons for the variance between the 2017 Test Year and 2012 last Board Approved is mainly attributed to:

- The decrease in the working capital allowance rate has reduced the Rate Base. The decrease is mainly attributed to the decrease in the working capital rate of 7.5% from 12% as approved during E.L.K.'s 2012 COS.

- Annual changes in cost of power and increases in OM & A expenses. E.L.K. has forecast an increase in Power Supply Expenses and eligible distribution expenses since the last Board Approved Rate.

- The average net capital asset in service has also increased. The main drivers behind this is the decrease in useful lives which results in a decrease in depreciation expense as well as the increased investment back into the distribution system.

E.L.K. has provided a summary of its calculations of the cost of power and controllable expenses used in the calculations for determining working capital for the years 2012 Board Approved, 2012 Actual, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and 2017 Test Year in Table 2-3 below. Further details of E.L.K.'s calculation of its cost of power calculations are provided in Table 2-21 and Table 2-22.

Table 2-3 - Summary of Working Capital Calculation

Expenses for Working Capital	2012 Board Approved	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge	2017 Test
Eligible Distribution Expenses:							
Distribution Expenses - Operation	291,000	272,543	233,391	260,055	263,090	365,280	642,274
Distribution Expenses - Maintenance	455,000	604,288	491,922	546,411	939,207	918,809	900,026
Billing & Collecting	775,064	564,380	582,646	587,255	527,861	554,193	598,394
Community Relations	10,000	16,790	10,391	5,499	- 12,807	- 3,654	11,822
Administrative & General Expenses	917,946	724,931	836,495	823,367	876,245	1,126,226	1,356,881
Donations - LEAP	-	50	25	20,150	125	100	100
Taxes othan than Income Taxes	23,000	21,300	-	22,572	20,769	5,000	17,410
Less Allocated Depreciation	-	- 84,683	- 68,344	- 70,142	- 45,890	-	- 42,396
Total Eligible Distribution Expenses	**2,472,010**	**2,119,599**	**2,086,526**	**2,195,167**	**2,568,600**	**2,965,954**	**3,484,511**
Power Supply Expenses	25,248,949	19,556,199	21,665,931	32,071,440	30,229,790	26,266,484	26,095,158
Total Expenses for Working Capital	**27,720,959**	**21,675,798**	**23,752,457**	**34,266,607**	**32,798,390**	**29,232,438**	**29,579,669**
Working Capital factor	12%	12%	12%	12%	12%	12%	7.50%
Total Working Capital Allowance	**3,326,515**	**2,601,096**	**2,850,295**	**4,111,993**	**3,935,807**	**3,507,893**	**2,218,475**

1.2 VARIANCE ANALYSIS OF RATE BASE

The following Table 2-4 through 2-9 sets out E.L.K.'s rate base and working capital calculations for the 2017 Test Year, 2016 Bridge Year, 2015 Actual, 2014 Actual, 2013 Actual, 2012 Board Approved and Actual, and the following variances:

- 2017 Test Year against 2016 Bridge Year;
- 2016 Bridge Year against 2015 Actual;
- 2015 Actual against 2014 Actual;

- 2014 Actual against 2013 Actual;
- 2013 Actual against 2012 Actual; and
- 2012 Actual against 2012 Board Approved.

E.L.K.'s materiality threshold is $50,000

Table 2-4 – 2017 Test Year vs. 2016 Bridge Year

Particulars	2017 Test	2016 Bridge	Variance	%
Net Capital Assets in Service:				
Opening Balance	9,439,589	8,657,686	781,903	8%
Ending Balance	10,124,792	9,439,589	685,203	7%
Average Balance	9,782,191	9,048,638	733,553	7%
Working Capital Allowance	2,218,475	3,507,893	- 1,289,418	-58%
Total Rate Base	**12,000,666**	**12,556,531**	**- 555,865**	**-5%**

The total projected Rate Base in 2017 of $12,000,666 is $555,865 or 5.0% lower than 2016.

The main reason for the difference is the working capital allowance saw a decrease in rate from 12.0% to 7.5%. The average net capital assets in service (including capital contributions) are approximately $700,000 higher than the amortization expense. This results in approximately $700,000 increase in rate base. Further, in 2017, the utilities investment in its distribution system is required in order to keep the system running in a safe and reliable manner. These projects are discussed further in E.L.K.'s distribution plan found in Appendix 2A. E.L.K. is also planning significant monies toward the addition of a new fleet vehicle, that being a radial boom derrick.

Table 2-5 – 2016 Bridge Year vs. 2015 Actual

Particulars	2016 Bridge	2015 Actual	Variance	%
Net Capital Assets in Service:				
Opening Balance	8,657,686	8,089,087	568,599	7%
Ending Balance	9,439,589	8,657,686	781,903	8%
Average Balance	9,048,638	8,373,387	675,251	7%
Working Capital Allowance	3,507,893	3,935,807	- 427,914	-12%
Total Rate Base	**12,556,531**	**12,309,194**	247,337	2%

The total projected Rate Base in 2016 of $12,556,531 is $247,337 or 2.0% higher than 2015.

The main reason for the minor variance is the average net capital assets in service (including capital contributions) are approximately $700,000 higher than the amortization expense. This results in approximately $700,000 increase in rate base. The rest of the increase can be attributed to regular maintenance of the distribution system.

Table 2-6 – 2015 Actual vs. 2014 Actual

Particulars	2015 Actual	2014 Actual	Variance	%
Net Capital Assets in Service:				
Opening Balance	8,089,087	8,059,927	29,160	0%
Ending Balance	8,657,686	8,089,087	568,599	7%
Average Balance	8,373,387	8,074,507	298,880	4%
Working Capital Allowance	3,935,807	4,111,993	- 176,186	-4%
Total Rate Base	**12,309,194**	**12,186,500**	122,694	1%

The total projected Rate Base in 2015 of $12,309,194 is $122,694 or 1.0% higher than 2014.

The main reason for the difference is the working capital allowance saw a small decrease due to the decrease in OM & A costs which is fully described in Appendix 4. The average net capital assets in service (including capital contributions) are approximately $300,000 higher than the amortization expense. This results in approximately $300,000 increase in rate base.

Table 2-7 – 2014 Actual vs. 2013 Actual

Particulars	2014 Actual	2013 Actual	Variance	%
Net Capital Assets in Service:				
Opening Balance	8,059,927	8,812,349	- 752,422	-9%
Ending Balance	8,089,087	8,059,927	29,160	0%
Average Balance	8,074,507	8,436,138	- 361,631	-4%
Working Capital Allowance	4,111,993	2,850,295	1,261,698	31%
Total Rate Base	**12,186,500**	**11,286,433**	900,067	7%

The total projected Rate Base in 2014 of $12,186,500 is $900,067 or 7.0% higher than 2013.

The main reason for the difference is the working capital allowance saw an increase due to the increase in OM & A costs which is fully described in Appendix 4. The average net capital assets in service (including capital contributions) are approximately $360,000 lower than the amortization expense. This results in approximately $360,000 lower in rate base.

Table 2-8 – 2013 Actual vs. 2012 Actual

Particulars	2013 Actual	2012 Actual	Variance	%
Net Capital Assets in Service:				
Opening Balance	8,812,349	7,655,503	1,156,846	13%
Ending Balance	8,059,927	7,136,501	923,426	11%
Average Balance	8,436,138	7,396,002	1,040,136	12%
Working Capital Allowance	2,850,295	2,601,096	249,199	9%
Total Rate Base	**11,286,433**	**9,997,098**	1,289,335	11%

The total projected Rate Base in 2013 of $11,286,433 is $1,289,335 or 11.0% higher than 2012.

The main reason for the difference is the average net capital assets in service (including capital contributions) are approximately $1,000,000 higher than the amortization expense. This results in approximately $1,000,000 higher in rate base.

Table 2-9 – 2012 Actual vs. 2012 Board Approved

Particulars	2012 Actual	2012 Board Approved	Variance	%
Net Capital Assets in Service:				
Opening Balance	7,655,503	9,211,176	- 1,555,673	-20%
Ending Balance	7,136,501	9,225,970	- 2,089,469	-29%
Average Balance	7,396,002	9,218,573	- 1,822,571	-25%
Working Capital Allowance	2,601,096	3,326,515	- 725,419	-28%
Total Rate Base	**9,997,098**	**12,545,088**	**- 2,547,990**	-25%

The total projected Rate Base in 2012 of $9,997,098 is $2,547,990 or 25.0% lower than 2012 Board Approved.

The main reason for the difference is power supply expense was significantly lower than projected. This was impacted by the overall weather conditions in 2012. Further OM & A was lower than projected. The actual average balance of net capital assets is lower based on significant contributions and grants.

1.3 FIXED ASSET CONTINUITY SCHEDULES, NO WORK IN PROGRESS

Table 2-10 through Table 2-15 are Board Appendix 2-BA and provide the Fixed Asset Continuity Schedules, for each of 2015 Actual, 2014 Actual, 2013 Actual, 2012 Actual, 2016 Bridge Year, and 2017 Test Year. E.L.K. does not have work in progress currently.

These schedules present a continuity schedule of its investment in capital assets, the associated accumulated amortization and the net book value for each Capital USoA account.

1 **Table 2-10 - Fixed Asset Continuity Schedule as at December 31, 2012, CGAAP**

Appendix 2-BA

Fixed Asset Continuity Schedule [1]

Accounting Standard: CGAAP
Year: 2012

			Cost				Accumulated Depreciation				
CCA Class [2]	OEB Account [3]	Description [3]	Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	Net Book Value
12	1611	Computer Software (Formally known as Account 1925)	$ 239,727	$ 1,294		$ 241,021	$ 194,362	$ 36,535		$ 230,897	$ 10,124
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725			$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 140,952	$ 62		$ 141,014	$ 1,084
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 888,856	$ 23,732		$ 912,588	$ 197,610	$ 36,039		$ 233,649	$ 678,939
47	1835	Overhead Conductors & Devices	$ 6,275,033	$ 106,131		$ 6,381,164	$ 4,306,416	$ 248,008		$ 4,554,424	$ 1,826,740
47	1840	Underground Conduit	$ 1,251,542	$ 124,331		$ 1,375,873	$ 243,930	$ 52,553		$ 296,483	$ 1,079,390
47	1845	Underground Conductors & Devices	$ 7,246,993	$ 229,404		$ 7,476,397	$ 4,537,673	$ 277,280		$ 4,814,953	$ 2,661,444
47	1850	Line Transformers	$ 5,511,324	$ 216,442		$ 5,727,766	$ 3,331,320	$ 200,371		$ 3,531,691	$ 2,196,075
47	1855	Services (Overhead & Underground)	$ 699,827	$ 72,965		$ 772,792	$ 137,902	$ 29,462		$ 167,364	$ 605,428
47	1860	Meters	$ 514,262	$ 2,402		$ 516,664	$ 70,591	$ 12,642		$ 83,233	$ 433,431
47	1860	Meters (Smart Meters)				$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765				$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 661,840	$ 3,031		$ 664,871	$ 429,951	$ 14,459		$ 444,410	$ 220,461
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 242,909	$ 45		$ 242,954	$ 204,575	$ 6,979		$ 211,554	$ 31,400
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 360,969	$ 4,643		$ 365,612	$ 347,322	$ 11,652		$ 358,974	$ 6,638
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment	$ 1,886,565			$ 1,886,565	$ 1,562,244	$ 83,137		$ 1,645,381	$ 241,184
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 365,317	$ 196		$ 365,513	$ 306,443	$ 12,669		$ 319,112	$ 46,401
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 35,831			$ 35,831	$ 23,200	$ 1,545		$ 24,745	$ 11,086
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	Sentinel Lighting Rentals	$ 15			$ 15		$ 15		$ 15	$ -
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 3,871,421	-$ 445,527		-$ 4,316,948	-$ 1,064,210	-$ 165,320		-$ 1,229,530	-$ 3,087,418
47	2440	Deferred Revenue[5]				$ -				$ -	$ -
		Sub-Total	**$ 22,628,509**	**$ 339,089**	**$ -**	**$ 22,967,598**	**$ 14,973,006**	**$ 858,088**	**$ -**	**$ 15,831,094**	**$ 7,136,504**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 22,628,509**	**$ 339,089**	**$ -**	**$ 22,967,598**	**$ 14,973,006**	**$ 858,088**	**$ -**	**$ 15,831,094**	**$ 7,136,504**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**$ 858,088**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 83,137
Communication	$ 1,545
Net Depreciation	-$ 84,682

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Table 2-11 - Fixed Asset Continuity Schedule as at December 31, 2013, MIFRS

Accounting Standard: MIFRS
Year: 2013

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 241,021	$ 2,716		$ 243,737	$ 230,897	$ 19,361		$ 250,258	-$ 6,521
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725			$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 141,014	$ 62		$ 141,076	$ 1,022
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 912,587	$ 88,785		$ 1,001,372	$ 233,649	$ 18,672		$ 252,321	$ 749,051
47	1835	Overhead Conductors & Devices	$ 6,381,164	$ 76,806		$ 6,457,970	$ 4,554,423	$ 36,380		$ 4,590,803	$ 1,867,167
47	1840	Underground Conduit	$ 1,375,872	$ 425,196		$ 1,801,068	$ 296,483	$ 28,583		$ 325,066	$ 1,476,002
47	1845	Underground Conductors & Devices	$ 7,476,397	$ 440,764		$ 7,917,161	$ 4,814,953	$ 91,845		$ 4,906,798	$ 3,010,363
47	1850	Line Transformers	$ 5,727,767	$ 237,824		$ 5,965,591	$ 3,531,691	$ 72,106		$ 3,603,797	$ 2,361,794
47	1851	Line Transformers- Pad Mount Switchgear				$ -				$ -	$ -
47	1852	Line Transformers- UG Found & UG Vaults		$ 22,746		$ 22,746		$ 190		$ 190	$ 22,556
47	1855	Services (Overhead & Underground)	$ 772,791	$ 99,790		$ 872,581	$ 167,364	$ 32,917		$ 200,281	$ 672,300
47	1860	Meters	$ 516,664		-$ 516,664	$ -	$ 83,233		-$ 83,233	$ -	$ -
47	1861	Meters- Residential SM Including Repeaters and Data Collectors	$ 912,143	$ 24,695		$ 936,838		$ 128,350		$ 128,350	$ 808,488
47	1862	Meters- Industrial/Commercial	$ 316,116	$ 7,039		$ 323,155		$ 33,942		$ 33,942	$ 289,213
47	1863	Meters- Wholesale	$ -			$ -				$ -	$ -
47	1864	Meters- CT's & PT's	$ 108,572	$ 2,462		$ 111,034		$ 3,176		$ 3,176	$ 107,858
47	1865	Other Installations on Customer's Premises	$ -			$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765				$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 664,871			$ 664,871	$ 346,577	$ 14,490		$ 361,067	$ 303,804
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 242,954	$ 2,223		$ 245,177	$ 211,554	$ 6,873		$ 218,427	$ 26,750
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 365,612	$ 2,165		$ 367,777	$ 358,974	$ 5,837		$ 364,811	$ 2,966
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment	$ 1,886,565		-$ 1,886,565	$ -	$ 1,645,381		-$ 1,645,381	$ -	$ -
10	1931	Transportation Equipment- Heavy Vehicle	$ 94,305			$ 94,305		$ 10,478		$ 10,478	$ 83,827
10	1932	Transportation Equipment- Light Vehicle	$ 146,879	$ 30,000	-$ 4,500	$ 172,379		$ 56,383		$ 56,383	$ 115,996
10	1933	Transportation Equipment- Underground	$ -			$ -				$ -	$ -
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 365,513	$ 15,400		$ 380,913	$ 319,112	$ 13,361		$ 332,473	$ 48,440
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 35,831	$ 275		$ 36,106	$ 24,745	$ 1,483		$ 26,228	$ 9,878
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	Sentinel Lighting Rentals	$ 15			$ 15				$ -	$ 15
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 4,316,948	-$ 1,175,443		-$ 5,492,391	-$ 1,229,529	-$ 197,739		-$ 1,427,268	-$ 4,065,123
47	2440	Deferred Revenue [5]									
						$ -				$ -	$ -
		Sub-Total	$ 24,545,611	$ 303,443	-$ 2,407,729	$ 22,441,325	$ 15,733,246	$ 376,750	-$ 1,728,614	$ 14,381,382	$ 8,059,943
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	$ 24,545,611	$ 303,443	-$ 2,407,729	$ 22,441,325	$ 15,733,246	$ 376,750	-$ 1,728,614	$ 14,381,382	$ 8,059,943
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable [6]									
		Total						$ 376,750			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 66,861
Communication	$ 1,483
Net Depreciation	$ 308,406

1 **Table 2-12 - Fixed Asset Continuity Schedule as at December 31, 2014, MIFRS**

Accounting Standard: MIFRS
Year: 2014

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 243,737	$ 13,313		$ 257,050	$ 250,258	$ 2,851		$ 253,109	$ 3,941
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725	$ -		$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 141,076	$ 62		$ 141,138	$ 960
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 1,001,372	$ 35,549		$ 1,036,921	$ 252,321	$ 20,053		$ 272,374	$ 764,547
47	1835	Overhead Conductors & Devices	$ 6,457,970	$ 16,269		$ 6,474,239	$ 4,590,803	$ 36,380		$ 4,627,183	$ 1,847,056
47	1840	Underground Conduit	$ 1,801,068	$ 179,440		$ 1,980,508	$ 325,066	$ 34,629		$ 359,695	$ 1,620,813
47	1845	Underground Conductors & Devices	$ 7,917,161	$ 324,572		$ 8,241,733	$ 4,906,798	$ 101,411		$ 5,008,209	$ 3,233,524
47	1850	Line Transformers	$ 5,965,591	$ 155,111		$ 6,120,702	$ 3,603,797	$ 77,018		$ 3,680,815	$ 2,439,887
47	1851	Line Transformers- Pad Mount Switchgear		$ 4,448		$ 4,448		$ 111		$ 111	$ 4,337
47	1852	Line Transformers- UG Found & UG Vaults	$ 22,746	$ 25,184		$ 47,930	$ 190	$ 589		$ 779	$ 47,151
47	1855	Services (Overhead & Underground)	$ 872,581	$ 96,768		$ 969,349	$ 200,281	$ 36,848		$ 237,129	$ 732,220
47	1860	Meters				$ -				$ -	$ -
47	1861	Meters- Residential SM Including Repeaters and Data Collectors	$ 936,838	$ 21,147		$ 957,985	$ 128,350	$ 130,642		$ 258,992	$ 698,993
47	1862	Meters- Industrial/Commercial	$ 323,155	$ 6,631		$ 329,786	$ 33,942	$ 34,398		$ 68,340	$ 261,446
47	1863	Meters- Wholesale	$ -			$ -				$ -	$ -
47	1864	Meters- CT's & PT's	$ 111,034	$ 2,567		$ 113,601	$ 3,176	$ 3,239		$ 6,415	$ 107,186
47	1865	Other Installations on Customer's Premises				$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765				$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 664,871	$ 336		$ 665,207	$ 361,067	$ 14,493		$ 375,560	$ 289,647
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 245,177	$ 140		$ 245,317	$ 218,427	$ 6,651		$ 225,078	$ 20,239
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 367,777	$ 11,279		$ 379,056	$ 364,811	$ 4,577		$ 369,388	$ 9,668
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment				$ -				$ -	$ -
10	1931	Transportation Equipment- Heavy Vehicle	$ 94,305	$ 21,756		$ 116,061	$ 10,478	$ 11,204		$ 21,682	$ 94,379
10	1932	Transportation Equipment- Light Vehicle	$ 172,379		-$ 1,200	$ 171,179	$ 56,383	$ 53,967		$ 110,350	$ 60,829
10	1933	Transportation Equipment- Underground	$ -	$ 70,712		$ 70,712	$ -	$ 3,536		$ 3,536	$ 67,176
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 380,913	$ 916		$ 381,829	$ 332,473	$ 11,912		$ 344,385	$ 37,444
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 36,106	$ 40		$ 36,146	$ 26,228	$ 1,435		$ 27,663	$ 8,483
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	Sentinel Lighting Rentals	$ 15			$ 15	$ 15			$ 15	$ -
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 5,492,391	-$ 603,122		-$ 6,095,513	-$ 1,427,268	-$ 233,310		-$ 1,660,578	-$ 4,434,935
47	2440	Deferred Revenue[5]									
						$ -				$ -	$ -
		Sub-Total	$ 22,441,325	$ 383,056	-$ 1,200	$ 22,823,181	$ 14,381,397	$ 352,696	$ -	$ 14,734,093	$ 8,089,088
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	$ 22,441,325	$ 383,056	-$ 1,200	$ 22,823,181	$ 14,381,397	$ 352,696	$ -	$ 14,734,093	$ 8,089,088
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						$ 352,696			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 68,707
Communication	$ 1,435
Net Depreciation	$ 282,554

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Table 2-13 - Fixed Asset Continuity Schedule as at December 31, 2015, MIFRS

Accounting Standard: MIFRS
Year: 2015

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 257,050	$ 2,201		$ 259,251	$ 253,109	$ 3,774		$ 256,883	$ 2,368
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725			$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 141,138	$ 62		$ 141,200	$ 898
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 1,034,672	$ 52,492		$ 1,087,164	$ 272,374	$ 21,031		$ 293,405	$ 793,759
47	1835	Overhead Conductors & Devices	$ 6,474,239	$ 27,991		$ 6,502,230	$ 4,627,183	$ 37,525		$ 4,664,708	$ 1,837,522
47	1840	Underground Conduit	$ 1,953,364	$ 263,064		$ 2,216,428	$ 359,695	$ 39,054		$ 398,749	$ 1,817,679
47	1845	Underground Conductors & Devices	$ 8,197,561	$ 126,314		$ 8,323,875	$ 5,008,209	$ 107,047		$ 5,115,256	$ 3,208,619
47	1850	Line Transformers	$ 6,083,306	$ 305,722		$ 6,389,028	$ 3,680,815	$ 82,778		$ 3,763,593	$ 2,625,435
47	1851	Line Transformers- Pad Mount Switchgear	$ 4,448	$ 4,067		$ 8,515	$ 111	$ 324		$ 435	$ 8,080
47	1852	Line Transformers- UG Found & UG Vaults	$ 37,877	$ 36,068		$ 73,945	$ 779	$ 1,099		$ 1,878	$ 72,067
47	1855	Services (Overhead & Underground)	$ 932,126	$ 98,936		$ 1,031,062	$ 237,129	$ 40,762		$ 277,891	$ 753,171
47	1860	Meters	$ -			$ -				$ -	$ -
47	1861	Meters- Residential SM Including Repeaters and Data Collectors	$ 957,985	$ 366,021		$ 1,324,006	$ 258,992	$ 132,244		$ 391,236	$ 932,770
47	1862	Meters- Industrial/Commercial	$ 316,808	$ 5,768		$ 322,576	$ 68,340	$ 34,568		$ 102,908	$ 219,668
47	1863	Meters- Wholesale	$ -	$ 1,013		$ 1,013	$ -	$ 34		$ 34	$ 979
47	1864	Meters- CT's & PT's	$ 108,323	$ 909		$ 109,232	$ 6,415	$ 3,282		$ 9,697	$ 99,535
47	1865	Other Installations on Customer's Premises				$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765	$ -			$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 665,207	$ 236		$ 665,443	$ 375,560	$ 14,499		$ 390,059	$ 275,384
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 245,317	$ 7,675		$ 252,992	$ 225,078	$ 5,846		$ 230,924	$ 22,068
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 379,056	$ 24,709		$ 403,765	$ 369,388	$ 7,020		$ 376,408	$ 27,357
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment				$ -				$ -	$ -
10	1931	Transportation Equipment- Heavy Vehicle	$ 116,061			$ 116,061	$ 21,682	$ 11,929		$ 33,611	$ 82,450
10	1932	Transportation Equipment- Light Vehicle	$ 171,179			$ 171,179	$ 110,350	$ 25,440		$ 135,790	$ 35,389
10	1933	Transportation Equipment- Underground	$ 70,712			$ 70,712	$ 3,536	$ 7,071		$ 10,607	$ 60,105
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 381,829	$ 4,107		$ 385,936	$ 344,385	$ 9,369		$ 353,754	$ 32,182
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 36,146	$ 727		$ 36,873	$ 27,663	$ 1,450		$ 29,113	$ 7,760
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	Sentinel Lighting Rentals	$ 15			$ 15	$ 15			$ 15	$ -
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 6,095,513	-$ 247,033		-$ 6,342,546	-$ 1,660,578	-$ 250,313		-$ 1,910,891	-$ 4,431,655
47	2440	Deferred Revenue [5]									
						$ -				$ -	$ -
		Sub-Total	$ 22,646,688	$ 1,080,987	$ -	$ 23,727,675	$ 14,734,093	$ 335,895	$ -	$ 15,069,988	$ 8,657,687
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	$ 22,646,688	$ 1,080,987	$ -	$ 23,727,675	$ 14,734,093	$ 335,895	$ -	$ 15,069,988	$ 8,657,687
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable [6]									
		Total						$ 335,895			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 44,440
Communication	$ 1,450
Net Depreciation	$ 290,005

Table 2-14 - Fixed Asset Continuity Schedule as at December 31, 2016, MIFRS

Accounting Standard: MIFRS
Year: 2016

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 259,251	$ 1,500		$ 260,751	$ 256,883	$ 4,055		$ 260,938	-$ 187
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725			$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 141,200	$ 62		$ 141,262	$ 836
47	1825	Storage Battery Equipment	$ -			$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 1,087,164	$ 83,000		$ 1,170,164	$ 293,405	$ 22,537		$ 315,942	$ 854,222
47	1835	Overhead Conductors & Devices	$ 6,502,230	$ 44,000		$ 6,546,230	$ 4,664,708	$ 38,124		$ 4,702,832	$ 1,843,398
47	1840	Underground Conduit	$ 2,216,428	$ 180,000		$ 2,396,428	$ 398,749	$ 43,484		$ 442,233	$ 1,954,195
47	1845	Underground Conductors & Devices	$ 8,323,875	$ 425,000		$ 8,748,875	$ 5,115,256	$ 113,939		$ 5,229,195	$ 3,519,680
47	1850	Line Transformers	$ 6,389,028	$ 417,000		$ 6,806,028	$ 3,763,593	$ 91,812		$ 3,855,405	$ 2,950,623
47	1851	Line Transformers- Pad Mount Switchgear	$ 8,515	$ 2,000		$ 10,515	$ 435	$ 476		$ 911	$ 9,604
47	1852	Line Transformers- UG Found & UG Vaults	$ 73,945	$ 6,000		$ 79,945	$ 1,878	$ 1,450		$ 3,328	$ 76,617
47	1855	Services (Overhead & Underground)	$ 1,031,062	$ 128,000		$ 1,159,062	$ 277,891	$ 45,301		$ 323,192	$ 835,870
47	1860	Meters				$ -				$ -	$ -
47	1861	Meters- Residential SM Including Repeaters and Data Collectors	$ 1,324,006	$ 9,000		$ 1,333,006	$ 391,236	$ 133,238		$ 524,474	$ 808,532
47	1862	Meters- Industrial/Commercial	$ 322,576	$ 30,000		$ 352,576	$ 102,908	$ 35,744		$ 138,652	$ 213,924
47	1863	Meters- Wholesale	$ 1,013	$ 5,000		$ 6,013	$ 34	$ 234		$ 268	$ 5,745
47	1864	Meters- CT's & PT's	$ 109,232	$ 2,000		$ 111,232	$ 9,697	$ 3,319		$ 13,016	$ 98,216
47	1865	Other Installations on Customer's Premises				$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765				$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 665,443	$ 16,000	-$ 249,155	$ 432,288	$ 390,059	$ 12,169	-$ 151,974	$ 250,254	$ 182,034
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 252,992	$ 49,000		$ 301,992	$ 230,924	$ 7,302		$ 238,226	$ 63,766
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 403,765	$ 52,000		$ 455,765	$ 376,408	$ 14,058		$ 390,466	$ 65,299
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment				$ -				$ -	$ -
10	1931	Transportation Equipment- Heavy Vehicle	$ 116,061	$ 22,000		$ 138,061	$ 33,611	$ 12,662		$ 46,273	$ 91,788
10	1932	Transportation Equipment- Light Vehicle	$ 171,179			$ 171,179	$ 135,790	$ 16,208		$ 151,998	$ 19,181
10	1933	Transportation Equipment- Underground	$ 70,712			$ 70,712	$ 10,607	$ 7,071		$ 17,678	$ 53,034
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 385,936	$ 8,000		$ 393,936	$ 353,754	$ 8,976		$ 362,730	$ 31,206
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 36,873			$ 36,873	$ 29,113	$ 1,357		$ 30,470	$ 6,403
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	Sentinel Lighting Rentals	$ 15			$ 15				$ -	$ 15
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 6,342,546	-$ 247,033		-$ 6,589,579	-$ 1,910,891	-$ 260,195		-$ 2,171,086	-$ 4,418,493
47	2440	Deferred Revenue [5]									
						$ -				$ -	$ -
		Sub-Total	$ 23,727,675	$ 1,232,467	-$ 249,155	$ 24,710,987	$ 15,069,973	$ 353,383	-$ 151,974	$ 15,271,382	$ 9,439,605
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	$ 23,727,675	$ 1,232,467	-$ 249,155	$ 24,710,987	$ 15,069,973	$ 353,383	-$ 151,974	$ 15,271,382	$ 9,439,605
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable [6]									
		Total						$ 353,383			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 35,941
Communication	$ 1,357
Net Depreciation	$ 316,085

1 **Table 2-15 - Fixed Asset Continuity Schedule as at December 31, 2017, MIFRS**

Accounting Standard: MIFRS
Year: 2017

			Cost				Accumulated Depreciation				
CCA Class [2]	OEB Account [3]	Description [3]	Opening Balance	Additions [4]	Disposals [6]	Closing Balance	Opening Balance	Additions	Disposals [6]	Closing Balance	Net Book Value
12	1611	Computer Software (Formally known as Account 1925)	$ 260,751	$ 28,000		$ 288,751	$ 260,938	$ 6,875		$ 267,813	$ 20,938
CEC	1612	Land Rights (Formally known as Account 1906)	$ 2,945			$ 2,945	$ 2,725			$ 2,725	$ 220
N/A	1805	Land	$ 2,112			$ 2,112				$ -	$ 2,112
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 142,098			$ 142,098	$ 141,262	$ 62		$ 141,324	$ 774
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 1,170,164	$ 56,000		$ 1,226,164	$ 315,942	$ 24,081		$ 340,023	$ 886,141
47	1835	Overhead Conductors & Devices	$ 6,546,230	$ 59,003		$ 6,605,233	$ 4,702,832	$ 38,983		$ 4,741,815	$ 1,863,418
47	1840	Underground Conduit	$ 2,396,428	$ 155,000		$ 2,551,428	$ 442,233	$ 46,535		$ 488,768	$ 2,062,660
47	1845	Underground Conductors & Devices	$ 8,748,875	$ 250,000		$ 8,998,875	$ 5,229,195	$ 122,375		$ 5,351,570	$ 3,647,305
47	1850	Line Transformers	$ 6,806,028	$ 188,000		$ 6,994,028	$ 3,855,405	$ 99,875		$ 3,955,280	$ 3,038,748
47	1851	Line Transformers- Pad Mount Switchgear	$ 10,515			$ 10,515	$ 911	$ 526		$ 1,437	$ 9,078
47	1852	Line Transformers- UG Found & UG Vaults	$ 79,945	$ 18,000		$ 97,945	$ 3,328	$ 1,650		$ 4,978	$ 92,967
47	1855	Services (Overhead & Underground)	$ 1,159,062	$ 59,000		$ 1,218,062	$ 323,192	$ 49,041		$ 372,233	$ 845,829
47	1860	Meters				$ -				$ -	$ -
47	1861	Meters- Residential SM Including Repeaters and Data Collectors	$ 1,333,006	$ 2,000		$ 1,335,006	$ 524,474	$ 133,788		$ 658,262	$ 676,744
47	1862	Meters- Industrial/Commercial	$ 352,576	$ 28,000		$ 380,576	$ 138,652	$ 37,658		$ 176,310	$ 204,266
47	1863	Meters- Wholesale	$ 6,013	$ 6,000		$ 12,013	$ 268	$ 601		$ 869	$ 11,144
47	1864	Meters- CT's & PT's	$ 111,232	$ 1,000		$ 112,232	$ 13,016	$ 3,356		$ 16,372	$ 95,860
47	1865	Other Installations on Customer's Premises				$ -				$ -	$ -
N/A	1905	Land	$ 171,765			$ 171,765	$ -			$ -	$ 171,765
47	1908	Buildings & Fixtures	$ 432,288	$ 2,000		$ 434,288	$ 250,254	$ 9,858		$ 260,112	$ 174,176
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ 301,992	$ 16,000		$ 317,992	$ 238,226	$ 9,776		$ 248,002	$ 69,990
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware	$ 455,765	$ 500		$ 456,265	$ 390,466	$ 18,545		$ 409,011	$ 47,254
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment				$ -				$ -	$ -
10	1931	Transportation Equipment- Heavy Vehicle	$ 138,061	$ 445,000		$ 583,061	$ 46,273	$ 28,229		$ 74,502	$ 508,559
10	1932	Transportation Equipment- Light Vehicle	$ 171,179			$ 171,179	$ 151,998	$ 5,869		$ 157,867	$ 13,312
10	1933	Transportation Equipment- Underground	$ 70,712			$ 70,712	$ 17,678	$ 7,071		$ 24,749	$ 45,963
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ 393,936			$ 393,936	$ 362,730	$ 5,362		$ 368,092	$ 25,844
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment	$ 36,873			$ 36,873	$ 30,470	$ 1,227		$ 31,697	$ 5,176
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	Sentinel Lighting Rentals	$ 15			$ 15	$ 15			$ 15	$ -
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 6,589,579	-$ 247,033		-$ 6,836,612	-$ 2,171,086	-$ 270,076		-$ 2,441,162	-$ 4,395,450
47	2440	Deferred Revenue[5]									
						$ -				$ -	$ -
		Sub-Total	$ 24,710,987	$ 1,066,470	$ -	$ 25,777,457	$ 15,271,397	$ 381,267	$ -	$ 15,652,664	$ 10,124,793
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	$ 24,710,987	$ 1,066,470	$ -	$ 25,777,457	$ 15,271,397	$ 381,267	$ -	$ 15,652,664	$ 10,124,793
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						$ 381,267			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*

Transportation	$ 41,169
Stores Equipment	$ 1,227
Net Depreciation	$ 338,871

2

2. GROSS ASSETS – PROPERTY PLANT AND EQUIPMENT AND ACCUMULATED DEPRECIATION

2.1 BREAKDOWN BY FUNCTION

Table 2-16 below categorizes E.L.K.'s assets into three categories; distribution plant, general plant, contributions and grants. In accordance with the Uniform System of Accounts ("USoA"), E.L.K. has included gross assets as follows:

- Distribution plant asset accounts include USoA 1805 to 1860 - this account includes assets such as substation equipment, poles, wires, transformers and meters;

- General plant asset accounts include USoA 1905 to 1990 and USoA 1611 - this account includes assets such as buildings, computer software and hardware, transportation equipment, and tools;

- Contributions and grants includes USoA account 1995 – this account includes all contributions in aid of capital that E.L.K. has received or forecasted to be received as per the Distribution System Code ("**DSC**"); and

Table 2-16 – Gross Asset Breakdown by Function

Description Reporting Basis	2012 Board Approved	2012 CGAAP	2013 MIFRS	2014 MIFRS	2015 MIFRS	2016 Bridge MIFRS	2017 Test MIFRS
Distribution Plant	25,255,740	23,305,357	25,551,614	26,419,300	27,531,172	28,862,172	29,684,175
General Plant	4,031,398	3,979,189	2,382,102	2,499,394	2,539,049	2,438,394	2,929,894
Contributions and Grants	- 4,519,671	- 4,316,948	- 5,492,391	- 6,095,513	- 6,342,546	- 6,589,579	- 6,836,612
Total	**$ 24,767,466**	**$ 22,967,598**	**$ 22,441,325**	**$ 22,823,181**	**$ 23,727,675**	**$ 24,710,987**	**$ 25,777,457**

2.2 DETAILED BREAKDOWN BY MAJOR PLANT ACCOUNT

Table 2-17 below provides a detailed breakdown by major plant account for each functionalized plant item. Each plant item is accompanied by a description in accordance with the Board's USoA, including the 2017 Test Year. E.L.K. has also included a breakdown of accumulated amortization in the same format in Table 2-18.

Table 2-17 - Gross Assets - Detailed Breakdown by Major Plant Function

Account Description Building and Land	2012 Board Approved	2012 Actual	Variance from 2012 Board Approved	2013 Actual	Variance from 2012 Actual	2014 Actual	Variance from 2013 Actual	2015 Actual	Variance from 2014 Actual	2016 Bridge	Variance from 2015 Actual	Test	Variance from 2016 Bridge
1612	2,945	2,945	-	2,945	-	2,945	-	2,945	-	2,945	-	2,945	-
1805	2,112	2,112	-	2,112	-	2,112	-	2,112	-	2,112	-	2,112	-
1905	171,765	171,765	-	171,765	-	171,765	-	171,765	-	171,765	-	171,765	-
1908	676,340	664,871	- 11,469	664,871	-	665,207	336	665,443	236	432,288	- 233,155	434,288	2,000
Distribution Station Equipment			-		-		-		-		-		-
1820	142,098	142,098	-	142,098	-	142,098	-	142,098	-	142,098	-	142,098	-
Overhead Plant			-		-		-		-		-		-
1830	909,856	912,588	2,732	1,001,372	88,784	1,036,921	35,549	1,087,164	50,243	1,170,164	83,000	1,226,164	56,000
1835	6,322,032	6,381,164	59,132	6,457,970	76,806	6,474,239	16,269	6,502,230	27,991	6,546,230	44,000	6,605,233	59,003
Underground Plant			-		-		-		-		-		-
1840	1,432,216	1,375,873	- 56,343	1,801,068	425,195	1,980,508	179,440	2,216,428	235,920	2,396,428	180,000	2,551,428	155,000
1845	7,692,427	7,476,397	- 216,030	7,917,161	440,764	8,241,733	324,572	8,323,875	82,142	8,748,875	425,000	8,998,875	250,000
Transformers			-		-		-		-		-		-
1850	5,867,292	5,727,766	- 139,526	5,965,591	237,825	6,120,702	155,111	6,389,028	268,326	6,806,028	417,000	6,994,028	188,000
1851	-	-	-	-	-	4,448	4,448	8,515	4,067	10,515	2,000	10,515	-
1852	-	-	-	22,746	22,746	47,930	25,184	73,945	26,015	79,945	6,000	97,945	18,000
Services and Meters			-		-		-		-		-		-
1855	782,314	772,792	- 9,522	872,581	99,789	969,349	96,768	1,031,062	61,713	1,159,062	128,000	1,218,062	59,000
1860	533,301	516,664	- 16,637		- 516,664		-	-	-		-	-	-
1860 (Smart Meters)	1,574,204	-	- 1,574,204		-		-	-	-		-	-	-
1861	-	-	-	936,838	936,838	957,985	21,147	1,324,006	366,021	1,333,006	9,000	1,335,006	2,000
1862	-	-	-	323,155	323,155	329,786	6,631	322,576	- 7,210	352,576	30,000	380,576	28,000
1863	-	-	-	-	-	-	-	1,013	1,013	6,013	5,000	12,013	6,000
1864	-	-	-	111,034	111,034	113,601	2,567	109,232	- 4,369	111,232	2,000	112,232	1,000
IT Assets and Other Equipment			-		-		-		-		-		-
1611	266,646	241,021	- 25,625	243,737	2,716	257,050	13,313	259,251	2,201	260,751	1,500	288,751	28,000
1915	245,409	242,954	- 2,455	245,177	2,223	245,317	140	252,992	7,675	301,992	49,000	317,992	16,000
1920	365,968	365,612	- 356	367,777	2,165	379,056	11,279	403,765	24,709	455,765	52,000	456,265	500
1930	1,886,565	1,886,565	-	-	- 1,886,565	-	-	-	-	-	-	-	-
1931				94,305	94,305	116,061	21,756	116,061	-	138,061	22,000	583,061	445,000
1932				172,379	172,379	171,179	- 1,200	171,179	-	171,179	-	171,179	-
1933					-	70,712	70,712	70,712	-	70,712	-	70,712	-
1940	377,817	365,513	- 12,304	380,913	15,400	381,829	916	385,936	4,107	393,936	8,000	393,936	-
1955	35,831	35,831	-	36,106	275	36,146	40	36,873	727	36,873	-	36,873	-
1985	-	15	15	15	-	15	-	15	-	15	-	15	-
1995	- 4,519,671	- 4,316,948	202,723	- 5,492,391	- 1,175,443	- 6,095,513	- 603,122	- 6,342,546	- 247,033	- 6,589,579	- 247,033	- 6,836,612	- 247,033
2055	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross Assets for Rate Base	24,767,467	22,967,598	- 1,799,869	22,441,325	- 526,273	22,823,181	381,856	23,727,675	904,494	24,710,987	983,312	25,777,457	1,066,470

Table 2-18 – Accumulated Amortization - Detailed Breakdown by Major Plant Function

Account Description- Accumulated													
Building and Land	2012 Board Approved	2012 Actual	Variance from 2012 Board Approved	2013 Actual	Variance from 2012 Actual	2014 Actual	Variance from 2013 Actual	2015 Actual	Variance from 2014 Actual	2016 Bridge	Variance from 2015 Actual	2017 Test	Variance from 2016 Bridge
1612	2,725	2,725	-	2,725	-	2,725	-	2,725	-	2,725	-	2,725	-
1805			-		-		-		-		-		-
1905			-		-		-		-		-		-
1908	346,691	444,410	97,719	361,067	- 83,343	375,560	14,493	390,059	14,499	250,254	- 139,805	260,112	9,858
Distribution Station Equipment			-		-		-		-		-		-
1820	141,014	141,014	-	141,076	62	141,138	62	141,200	62	141,262	62	141,324	62
Overhead Plant			-		-		-		-		-		-
1830	215,712	233,649	17,937	252,321	18,672	272,374	20,053	293,405	21,031	315,942	22,537	340,023	24,081
1835	4,345,579	4,554,424	208,845	4,590,803	36,379	4,627,183	36,380	4,664,708	37,525	4,702,832	38,124	4,741,815	38,983
Underground Plant			-		-		-		-		-		-
1840	270,024	296,483	26,459	325,066	28,583	359,695	34,629	398,749	39,054	442,233	43,484	488,768	46,535
1845	4,636,225	4,814,953	178,728	4,906,798	91,845	5,008,209	101,411	5,115,256	107,047	5,229,195	113,939	5,351,570	122,375
Transformers			-		-		-		-		-		-
1850	3,408,492	3,531,691	123,199	3,603,797	72,106	3,680,815	77,018	3,763,593	82,778	3,855,405	91,812	3,955,280	99,875
1851	-	-	-	-	-	111	111	435	324	911	476	1,437	526
1852	-	-	-	190	190	779	589	1,878	1,099	3,328	1,450	4,978	1,650
Services and Meters											-		-
1855	167,555	167,364	- 191	200,281	32,917	237,129	36,848	277,891	40,762	323,192	45,301	372,233	49,041
1860	97,585	83,233	- 14,352	-	- 83,233	-	-		-		-	-	-
1860 (Smart Meters)	356,688	-	- 356,688	-	-	-	-		-		-	-	-
1861		-	-	128,350	128,350	258,992	130,642	391,236	132,244	524,474	133,238	658,262	133,788
1862		-	-	33,942	33,942	68,340	34,398	102,908	34,568	138,652	35,744	176,310	37,658
1863		-	-	-	-	-	-	34	34	268	234	869	601
1864		-	-	3,176	3,176	6,415	3,239	9,697	3,282	13,016	3,319	16,372	3,356
IT Assets and Other Equipment			-		-		-		-		-		-
1611	243,527	230,897	- 12,630	250,258	19,361	253,109	2,851	256,883	3,774	260,938	4,055	267,813	6,875
1915	211,677	211,554	- 123	218,427	6,873	225,078	6,651	230,924	5,846	238,226	7,302	248,002	9,776
1920	359,010	358,974	- 36	364,811	5,837	369,388	4,577	376,408	7,020	390,466	14,058	409,011	18,545
1930	1,628,106	1,645,381	17,275		- 1,645,381		-		-		-		-
1931	-	-	-	10,478	10,478	21,682	11,204	33,611	11,929	46,273	12,662	74,502	28,229
1932	-	-	-	56,383	56,383	110,350	53,967	135,790	25,440	151,998	16,208	157,867	5,869
1933	-	-	-		-	3,536	3,536	10,607	7,071	17,678	7,071	24,749	7,071
1940	319,727	319,112	- 615	332,473	13,361	344,385	11,912	353,754	9,369	362,730	8,976	368,092	5,362
1955	24,744	24,745	1	26,228	1,483	27,663	1,435	29,113	1,450	30,470	1,357	31,697	1,227
1985		15	15		- 15	15	15	15	-	-	- 15	15	15
1995	- 1,233,584	- 1,229,530	4,054	- 1,427,268	- 197,738	- 1,660,578	- 233,310	- 1,910,891	- 250,313	- 2,171,086	- 260,195	- 2,441,162	- 270,076
2055			-		-		-		-		-		-
Gross Assets for Rate Base	15,541,497	15,831,094	289,597	14,381,382	- 1,449,712	14,734,093	352,711	15,069,988	335,895	15,271,382	201,394	15,652,664	381,282

2.3 VARIANCE ANALYSIS ON GROSS ASSETS

Table 2-19 below provides the same level of detail as Table 2-21, however, for the purposes of the variance analysis assets are categorized as Distribution Assets and General Plant and explanations on variances over E.L.K.'s materiality threshold are explained following the table.

Table 2-19 – Variance on Gross Assets

Asset Description	2012 Board Approved	2012 Actual	Variance from 2012 Board Approved	2013 Actual	Variance from 2012 Actual	2014 Actual	Variance from 2013 Actual	2015 Actual	Variance from 2014 Actual	2016 Bridge	Variance from 2015 Actual	2017 Test	Variance from 2016 Bridge
DISTRIBUTION ASSETS			-		-		-		-		-		-
1820	142,098	142,098	-	142,098	-	142,098	-	142,098	-	142,098	-	142,098	-
1830	909,856	912,588	2,732	1,001,372	88,784	1,036,921	35,549	1,087,164	50,243	1,170,164	83,000	1,226,164	56,000
1835	6,322,032	6,381,164	59,132	6,457,970	76,806	6,474,239	16,269	6,502,230	27,991	6,546,230	44,000	6,605,233	59,003
1840	1,432,216	1,375,873	- 56,343	1,801,068	425,195	1,980,508	179,440	2,216,428	235,920	2,396,428	180,000	2,551,428	155,000
1845	7,692,427	7,476,397	- 216,030	7,917,161	440,764	8,241,733	324,572	8,323,875	82,142	8,748,875	425,000	8,998,875	250,000
1850	5,867,292	5,727,766	- 139,526	5,965,591	237,825	6,120,702	155,111	6,389,028	268,326	6,806,028	417,000	6,994,028	188,000
1851	-	-	-	-	-	4,448	4,448	8,515	4,067	10,515	2,000	10,515	-
1852	-	-	-	22,746	22,746	47,930	25,184	73,945	26,015	79,945	6,000	97,945	18,000
1855	782,314	772,792	- 9,522	872,581	99,789	969,349	96,768	1,031,062	61,713	1,159,062	128,000	1,218,062	59,000
1860	533,301	516,664	- 16,637		- 516,664		-	-	-		-	-	-
1860 (Smart Meters)	1,574,204	-	- 1,574,204		-		-	-	-		-	-	-
1861	-	-	-	936,838	936,838	957,985	21,147	1,324,006	366,021	1,333,006	9,000	1,335,006	2,000
1862	-	-	-	323,155	323,155	329,786	6,631	322,576	- 7,210	352,576	30,000	380,576	28,000
1863	-	-	-	-	-	-	-	1,013	1,013	6,013	5,000	12,013	6,000
1864	-	-	-	111,034	111,034	113,601	2,567	109,232	- 4,369	111,232	2,000	112,232	1,000
1995	- 4,519,671	- 4,316,948	202,723	- 5,492,391	- 1,175,443	- 6,095,513	- 603,122	- 6,342,546	- 247,033	- 6,589,579	- 247,033	- 6,836,612	- 247,033
Subtotal Distribution Assets	20,736,069	18,988,394	- 1,747,675	20,059,223	1,070,829	20,323,787	264,564	21,188,626	864,839	22,272,593	1,083,967	22,847,563	574,970
GENERAL PLANT													
1611	266,646	241,021	- 25,625	243,737	2,716	257,050	13,313	259,251	2,201	260,751	1,500	288,751	28,000
1612	2,945	2,945	-	2,945	-	2,945	-	2,945	-	2,945	-	2,945	-
1805	2,112	2,112	-	2,112	-	2,112	-	2,112	-	2,112	-	2,112	-
1905	171,765	171,765	-	171,765	-	171,765	-	171,765	-	171,765	-	171,765	-
1908	676,340	664,871	- 11,469	664,871	-	665,207	336	665,443	236	432,288	- 233,155	434,288	2,000
1915	245,409	242,954	- 2,455	245,177	2,223	245,317	140	252,992	7,675	301,992	49,000	317,992	16,000
1920	365,968	365,612	- 356	367,777	2,165	379,056	11,279	403,765	24,709	455,765	52,000	456,265	500
1930	1,886,565	1,886,565	-	-	- 1,886,565	-	-	-	-	-	-	-	-
1931				94,305	94,305	116,061	21,756	116,061	-	138,061	22,000	583,061	445,000
1932				172,379	172,379	171,179	- 1,200	171,179	-	171,179	-	171,179	-
1933					-	70,712	70,712	70,712	-	70,712	-	70,712	-
1940	377,817	365,513	- 12,304	380,913	15,400	381,829	916	385,936	4,107	393,936	8,000	393,936	-
1955	35,831	35,831	-	36,106	275	36,146	40	36,873	727	36,873	-	36,873	-
1985	-	15	15	15	-	15	-	15	-	15	-	15	-
Subtotal General Plant	4,031,398	3,979,204	- 52,194	2,382,102	- 1,597,102	2,499,394	117,292	2,539,049	39,655	2,438,394	- 100,655	2,929,894	491,500

2012 Board Approved (CGAAP) compared to 2012 Actual (CGAAP)

Distribution Assets Variance: -$1,747,675

2012 Actual Distribution Assets were lower than the 2012 Board Approved amounts by $1,747,675. The items primarily related to this variance include:

- Acct 1860 Smart Meters was included in the 2012 Board Approved for modelling purposes, but did actually not get approved or went into effect until 2013.

General Assets Variance: -$52,194

2012 Actual General Assets were lower than the 2012 Board Approved amount by $52,194. This item is primarily related to the deferral of E.L.K.'s e-care/web based software module to 2013/2014 of approximately $20,000.

2013 Actual compared to 2012 Actual

Distribution Assets Variance: $1,070,829

2013 Actual Distribution Assets were higher than the 2012 actual amounts by $1,070,829. The items primarily related to this variance include accounts 1845 and 1850 which is the result of an extremely large one-off distribution plant relocation project for the Town of Lakeshore in which E.L.K. relocated all of its overhead assets to underground in the downtown core in order for the town to improve the streetscape and landscaping of the overall area.

General Assets Variance: -$1,597,102

2013 Actual General Assets were lower than the 2012 actual by $1,597,102. This item is primarily related to the Acct 1930 Transportation Equipment which was included in the 2012 Actual, but did actually convert to MIFRS accounting for capital assets until 2013.

2014 Actual compared to 2013 Actual

Distribution Assets Variance: $264,564

2014 Actual Distribution Assets were higher than the 2013 actual amounts by $264,564. The items primarily related to this variance include:

Two primary reasons, one being that in 2013 during E.L.K.'s transition to IFRS for fixed assets and depreciation, resulted in significant disposals as supported in E.L.K. Fixed Asset Continuity Schedule, Table 2-11. This decrease was offset by a lesser amount of depreciation taken due to the increase of useful lives as determined using the Kinetrics report and reviewed and detailed out with KPMG. A secondary offset to the decrease is the result of development projects that occurred in 2014 as well as E.L.K. offer to connect true-ups completed that reduced account 1995 and ultimately increased distribution assets.

General Assets Variance: $117,292

2014 Actual General Assets were higher than the 2013 actual by $117,292. This item is primarily related to the addition of a new F450 Cab and Chassis, approximately $70,000 as well as the addition of a new pole trailer, approximately $20,000.

2015 Actual compared to 2014 Actual

Distribution Assets Variance: $864,839

2015 Actual Distribution Assets were higher than the 2014 actual amounts by $864,839. The items primarily related to this variance include:

Accounts 1840 and 1850, Underground Conduit and Line transformers, overhead and underground respectively are accounts that change and fluctuate through a factor that is driven by demand. As can be seen in Table 2-14, there was a significant amount of new development in E.L.K. territory as well as E.L.K. significant underground Asset Renewal project, Viscount Estates Underground Rejuvenation that improved E.L.K.'s infrastructure. These account for approximately $500,000 of the variance. Further, the result of an accounting entry required in 2015 to re-class some smart meter regulatory accounts in capital accounts during the IFRS transitional year totalled approximately $366,000.

General Assets Variance: $39,655

The general asset variance of the 2015 Actual General Assets versus the 2014 actual were below materiality and therefore no explanation is provided.

2016 Bridge compared to 2015 Actual

Distribution Assets Variance: $1,083,967

2016 Bridge Distribution Assets are higher than the 2015 actual amounts by $1,083,967. The items primarily related to this variance include:

Accounts 1840 through 1850 which is a factor that is driven by demand. As can be seen in Table 2-24, there were a significant amount of new development in E.L.K. territory specifically the Bernath Gardens, Cottam Woods Phase 3 and ROATC Ph. 5 residential developments. As well, E.L.K. has continued to aggressively pursue its own underground Asset Renewal project for Viscount Estates.

General Assets Variance: -$100,655

2016 Bridge General Assets are lower than the 2015 actual by $100,655. This item is primarily related to the sale of the Essex Service Centre in 2016 (250,000) which is offset by accounts 1915 and 1920 upgrades which includes new office flooring as well as a new SQL server and upgrade (approximately $100,000)

2017 Test compared to 2016 Bridge

Distribution Assets Variance: $574,970

2017 Test Distribution Assets are higher than the 2016 Bridge amounts by $574,970. The items primarily related to this variance include:

E.L.K.'s estimation of future development that is a factor driven by demand, as well as the further rejuvenation of underground assets within E.L.K.'s service territory.

General Assets Variance: $491,500

2017 Test General Assets are higher than the 2016 Bridge by $491,500. This item is primarily related to the replacement of the radial boom derrick in 2017 $445,000.

2.4 SUMMARY OF INCREMENTAL CAPITAL MODULE ADJUSTMENT

E.L.K. confirms that it has not applied for nor received any ICM adjustments as part of a previous IRM application.

2.5 RECONCILIATION OF CONTINUITY STATEMENTS TO CALCULATED DEPRECIATION EXPENSES

E.L.K. confirms that the depreciation expenses in the fixed asset continuity statements reconcile to the calculated depreciation expenses under Exhibit 4 – Operating Costs and are presented by account. As such there are no reconciling items between the fixed asset continuity statements in this Exhibit and the calculated depreciation expense in Exhibit 4.

3. ALLOWANCE FOR WORKING CAPITAL

3.1 OVERVIEW

The Filing Requirements permit applicants to take one of two approaches for the calculation of the allowance for working capital; the 7.5% Allowance Approach or the filing of a lead/lag study. Using the 7.5% Allowance Approach, the working capital allowance is calculated to be 7.5% of the sum of Cost of Power ("**COP**") and controllable expenses (Operations, Maintenance, Billing and Collecting, Community Relations, Administration and General). E.L.K. did not conduct a lead lag study and is using the 7.5% Allowance Approach in accordance with the Filing Requirements.

The working capital allowance for the 2017 Test Year is based upon 7.5% of the COP and controllable expenses. In calculating the working capital allowance for 2012 to 2015 actual and for the 2016 Bridge Year, E.L.K. used the Board's historical 12% Allowance Approach.

Table 2-20 provides a summary of E.L.K.'s COP and controllable expenses used to calculate working capital allowance for 2012 Board Approved, 2012 Actual, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and the 2017 Test Year.

Table 2-20 - Summary of Working Capital Allowance

Expenses for Working Capital	2012 Board Approved	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge	2017 Test
Eligible Distribution Expenses:							
Distribution Expenses - Operation	291,000	272,543	233,391	260,055	263,090	365,280	642,274
Distribution Expenses - Maintenance	455,000	604,288	491,922	546,411	939,207	918,809	900,026
Billing & Collecting	775,064	564,380	582,646	587,255	527,861	554,193	598,394
Community Relations	10,000	16,790	10,391	5,499	- 12,807	- 3,654	11,822
Administrative & General Expenses	917,946	724,931	836,495	823,367	876,245	1,126,226	1,356,881
Donations - LEAP	-	50	25	20,150	125	100	100
Taxes othan than Income Taxes	23,000	21,300	-	22,572	20,769	5,000	17,410
Less Allocated Depreciation	-	- 84,683	- 68,344	- 70,142	- 45,890	-	- 42,396
Total Eligible Distribution Expenses	**2,472,010**	**2,119,599**	**2,086,526**	**2,195,167**	**2,568,600**	**2,965,954**	**3,484,511**
Power Supply Expenses	25,248,949	19,556,199	21,665,931	32,071,440	30,229,790	26,266,484	26,095,158
Total Expenses for Working Capital	**27,720,959**	**21,675,798**	**23,752,457**	**34,266,607**	**32,798,390**	**29,232,438**	**29,579,669**
Working Capital factor	12%	12%	12%	12%	12%	12%	7.50%
Total Working Capital Allowance	**3,326,515**	**2,601,096**	**2,850,295**	**4,111,993**	**3,935,807**	**3,507,893**	**2,218,475**

3.2 COST OF POWER CALCULATIONS

E.L.K. has calculated cost of power for the 2017 Test Year based on the results of the load forecast which is discussed in detail in Exhibit 3. The electricity prices used in the calculation were the published prices in the OEB's Regulated Price Plan Report – May 1, 2016 to April 30, 2017, issued April 14, 2016. On October 19, 2016, the OEB released the Regulated Price Plan Price Report - November 1, 2016 to October 31, 2017. E.L.K. reviewed the impact on the revenue requirement using the updated report and determined the revenue requirement would increase by less than $300. Since the impact was minimal and E.L.K. was also in the last stages of preparing the application for filing the changes to cost of power were not made in the application.

The cost of power calculations for the 2017 Test Year and a cost of power summary are provided in the following Table 2-21 and Table 2-22.

Table 2-21: 2017 Test Year Cost of Power Forecast Calculation

2017 Load Foreacst	kWh	kW	2015 %RPP		
Residential	92,079,767		86%		
General Service < 50 kW	29,137,274		81%		
General Service 50 to 4,999 kW	60,741,788	188,540	6%		
Street Lighting	2,380,054	6,476	0%		
Sentinel Lighting	5,962	14	0%		
Unmetered Scattered Load	264,832		0%		
Embedded Distributor	45,143,217	96,786	0%		
TOTAL	**229,752,894**	**291,816**			

Electricity - Commodity RPP	2017	2017 Loss			
Class per Load Forecast RPP	**Forecasted**	**Factor**	**2017**		
Residential	78,917,760	1.0675	84,242,582	$0.11141	$9,385,466
General Service < 50 kW	23,516,547	1.0675	25,103,280	$0.11141	$2,796,756
General Service 50 to 4,999 kW	3,724,653	1.0675	3,975,967	$0.11141	$442,962
Street Lighting	0	1.0675	0	$0.11141	$0
Sentinel Lighting	0	1.0675	0	$0.11141	$0
Unmetered Scattered Load	0	1.0675	0	$0.11141	$0
Embedded Distributor	0	1.0675	0	$0.11141	$0
TOTAL	**106,158,960**		**113,321,829**		**$12,625,185**

Electricity - Commodity Non-RPP	2017	2017 Loss			
Class per Load Forecast	**Forecasted**	**Factor**	**2017**		
Residential	13,162,007	1.0675	14,050,088	$0.10772	$1,513,476
General Service < 50 kW	5,620,727	1.0675	5,999,974	$0.10772	$646,317
General Service 50 to 4,999 kW	57,017,135	1.0675	60,864,256	$0.10772	$6,556,298
Street Lighting	2,380,054	1.0675	2,540,643	$0.10772	$273,678
Sentinel Lighting	5,962	1.0675	6,364	$0.10772	$686
Unmetered Scattered Load	264,832	1.0675	282,701	$0.10772	$30,453
Embedded Distributor		1.0675	0	$0.10772	$0
TOTAL	**78,450,717**		**83,744,027**		**$9,020,907**

Transmission - Network		Volume			
Class per Load Forecast		**Metric**	**2017**		
Residential		kWh	98,292,671	$0.0066	$648,128
General Service < 50 kW		kWh	31,103,255	$0.0058	$181,163
General Service 50 to 4,999 kW		kW	188,540	$2.4392	$459,884
Street Lighting		kW	6,476	$1.8397	$11,913
Sentinel Lighting		kW	14	$1.8489	$26
Unmetered Scattered Load		kWh	282,701	$0.0058	$1,647
Embedded Distributor		kW	96,786	$2.4123	$233,473
TOTAL					**$1,536,234**

Transmission - Connection		**Volume**			
Class per Load Forecast		**Metric**		**2017**	
Residential		kWh	98,292,671	$0.0051	$502,329
General Service < 50 kW		kWh	31,103,255	$0.0045	$140,031
General Service 50 to 4,999 kW		kW	188,540	$1.8386	$346,646
Street Lighting		kW	6,476	$1.4223	$9,211
Sentinel Lighting		kW	14	$1.4521	$20
Unmetered Scattered Load		kWh	282,701	$0.0045	$1,273
Embedded Distributor		kW	96,786	$1.8386	$177,949
TOTAL					**$1,177,459**

Wholesale Market Service					
Class per Load Forecast				**2017**	
Residential			98,292,671	$0.0036	$353,854
General Service < 50 kW			31,103,255	$0.0036	$111,972
General Service 50 to 4,999 kW			64,840,222	$0.0036	$233,425
Street Lighting			2,540,643	$0.0036	$9,146
Sentinel Lighting			6,364	$0.0036	$23
Unmetered Scattered Load			282,701	$0.0036	$1,018
Embedded Distributor			0	$0.0036	$0
TOTAL			**197,065,857**		**$709,437**

Rural Rate Assistance					
Class per Load Forecast				**2017**	
Residential			98,292,671	$0.0013	$127,780
General Service < 50 kW			31,103,255	$0.0013	$40,434
General Service 50 to 4,999 kW			64,840,222	$0.0013	$84,292
Street Lighting			2,540,643	$0.0013	$3,303
Sentinel Lighting			6,364	$0.0013	$8
Unmetered Scattered Load			282,701	$0.0013	$368
Embedded Distributor			0	$0.0013	$0
TOTAL			**197,065,857**		**$256,186**

Ontario Electricity Support Program Charge					
Class per Load Forecast				**2017**	
Residential			98,292,671	$0.0011	$108,122
General Service < 50 kW			31,103,255	$0.0011	$34,214
General Service 50 to 4,999 kW			64,840,222	$0.0011	$71,324
Street Lighting			2,540,643	$0.0011	$2,795
Sentinel Lighting			6,364	$0.0011	$7
Unmetered Scattered Load			282,701	$0.0011	$311
Embedded Distributor			0	$0.0011	$0
TOTAL			**197,065,857**		**$216,772**

Table 2-22: 2017 Test Year Cost of Power Summary

	2017
4705-Power Purchased Incl GA	$21,646,092
4708-Charges-WMS	$926,210
4714-Charges-NW	$1,536,234
4716-Charges-CN	$1,177,459
4730-Rural Rate Assistance	$256,186
4751-Smart Meter Entity Charge	$110,345
TOTAL	**25,652,525**

4. TREATMENT OF STRANDED ASSETS RELATED TO SMART METER DEPLOYMENT

E.L.K. has previously disposed of its stranded meter costs in its last cost of service application EB-2011-0099. For the purposes of settlement, the parties accepted the stranded meter net book value for the year ended December 31, 2011 of $264,606 as presented in Settlement Table 12: Stranded Meter Customer Class, below. The parties accepted the proposal for recovery of the amount through a rate rider of $1.47 per metered residential customer per month, and a rate rider of $5.99 per metered General Service <50 kW customer per month through the allocation methodology presented below. E.L.K. recovered costs for a one year period, commencing May 1, 2013.

Settlement Table #12: Stranded Meter Customer Class Rate Rider

As per OEB direction stranded meter costs are to be recorded in "sub-account stranded meter costs" of account 1555. This workpaper documents the					
# of meters to be changed to smart meters		11,099	99%		
# of meters not to be changed to smart meters at this time		115	1%		
		11,214	100%		
		Cost	Accumulated amortization	NBV	
1860	Open	$ 1,375,473.64	$ (648,787.33)		
	Remove meter costs before January 1, 2006				
2009 additions		$ (35,968.09)	$ 719.76		
2008 additions		$ (131,189.64)	$ 7,871.38		
2007 additions		$ (276,450.35)	$ 27,645.03		
2006 additions		$ (52,061.47)	$ 7,288.61		
Meter costs eligible for smart meter cost recovery		$ 879,784.09	$ (605,262.55)	$ 274,521.54	
% of meters to be stranded		99%	99%	99%	
$ of meters to be stranded		$ 870,986.25	$ (599,209.92)	$ 271,776.32	
1330-03	Previous meter inventory			$ 34,519.90	
			1555-50	$ 306,296.22	
	Less: Proceeds of Disposition of Meters (2011 Green Port Environment)			$ (6,850.96)	
	1555-50 as at December 31, 2011			$ 299,445.26	
	Less 2011 Depreciation			(34,839.45)	
				$ 264,605.81	

Stranded Meter Rate Rider by Class			
	Total	Residential	GS < 50
Weighted Meter Costs - I7.1 from 2006/7 Cost Allocation Informational Filing (A)	$721,025	$483,200	$237,825
Allocation Factor (B) based on info in (A)	100%	67%	33%
Stranded Meters by Class (C) = Total Cost X (B)	$264,606	$177,327	$87,278
Metered Customers (D)	11,238	10,023	1,214
Stranded Meter Rate Rider by Class (E) = (C) / (D) / 12	$1.96	$1.47	$5.99

5. CAPITAL EXPENDITURES

5.1 PLANNING

The Board's RRFE is designed to support the cost-effective planning and operation of the distribution network and that of LDC distribution systems. The RRFE takes an integrated approach to planning in order to facilitate priorities and pacing of capital expenditures. In accordance with the filing requirements, E.L.K. is filing its consolidated DSP as a stand-alone document which includes all elements of the DSP as Appendix 2A of this Exhibit.

E.L.K. has organized the information contained in the DSP using the headings indicated in Chapter Five of the Board's Filing Requirements for Electricity Distribution and Transmission Applications, Consolidated Distribution System Plan Filing Requirements dated March 28, 2013. The DSP incorporates matters pertaining to asset management, regional planning, and renewable energy generation.

The intention underlying DS Planning at E.L.K. encourages a process of "continuous improvement." The following steps that have been adapted through the planning process:

- Establish the objectives and processes necessary to deliver results in accordance with the expected outcomes. Start, on a small scale, to test possible effects and financial feasibility. Develop a DS Plan, prioritizing budgets, resources, and timelines.

- Implement the Plan and collect data for analysis. Develop projects' design and execution, preparing status reports, and implementing planned activities.

- Study the actual results and compare against the expected results to ascertain any differences. Evaluate any deviations in implementation from the Plan, and

evaluate the appropriateness and completeness of the Plan to enable the execution. This Plan elaborates on E.L.K.'s Performance Outcomes.

- Recommend improvements and adjustments to the initial plan; determine the course of corrections and modifications to the plan.

In this DS Plan, E.L.K. also describes the areas where it has been determined that the asset management process, systems and data need to be improved. E.L.K.'s DS network provides an essential service to the community and needs to be reliable and sustainable. The electricity distribution infrastructure assets are capital-intensive and have a long life. E.L.K. will continue to monitor and optimize the network performance, further refine effective investment strategies and refocus activities, as needed, to meet established targets.

To facilitate better planning, prioritization and pacing of capital expenditures, E.L.K. is using an integrated approach to planning. This means E.L.K.'s capital expenditure plan consolidates all categories of system investments, including investments to renew and expand the distribution system. The DSP will be amended, as required, with information about investments that will be identified during the regional planning process, and will include investments to accommodate the connection of renewable generation or to implement a smart grid.

This is the first effort of E.L.K. to use an integrated framework approach. E.L.K. first developed a long term Distribution Asset Management Plan (DAMP) in 2012. The current plan, however, consolidates information that includes data about renewable generation (REG), smart grid and other components compliant with the requirements of Chapter 5.

Planning Horizon

This DSP encompasses projections and forecasts for the 2016 - 2021 timeframe. It is intended that the DSP will be reviewed on a periodic basis, and amended with new information as it becomes available.

The planning horizon extends to a five (5) year period, (in terms of rate setting 2016 is a bridge year, 2017 is a test year, and 2018 - 2021 represent forecasted years, based on Chapter 5 requirements for Consolidated Distribution System Planning. Under the renewed regulatory framework, a planning horizon of five (5) years is required to support integrated planning and better alignment of E.L.K.'s planning cycles with rate-setting cycles. A longer-term approach enhances the predictability necessary to facilitate planning and decision-making by customers and distributors. This also facilitates the cost-effective and efficient implementation of the DSP and meeting of OEB expectations in the areas of performance outcomes. The asset assessments are also based on a five (5) year planning period. It is very likely that new developments, not currently identified here, will arise at any given time, and will be amended into the plan.

In order to support integrated planning and better align the distributor planning cycles with rate-setting cycles, the approach to longer-term planning (a minimum of five years) has incorporated the following elements into the plan.

Longer-Term Planning Element	Approach
Enhance the predictability necessary to facilitate planning – including regional planning – and decision-making by customers and distributors	• Heighten the emphasis on regionally-planned infrastructure • Complete system renewal and expansion – refresh assets in totality, as per assets' lifecycle using a longer-term bottom-up approach • Assess the available capacity for renewable energy generation efforts and community growth
Facilitate the cost-effective and efficient implementation of	• Initiate study and assessment for enhancement of customer communication and implementation of

Longer-Term Planning Element	Approach
distributor DS Plans and, thereby, the achievement of customer service and cost performance outcomes *Manage consumer rate impacts*	Outage Management System • Improve customer communication • Develop detailed implementation plans • Enhance Conservation Demand Management (CDM) Program and REG to help manage rate impacts • Consider system impacts of CDM results • Assess capital investment scenarios in terms of risk mitigation and longer-term smoothing of customer rate impacts

Regional Planning

Regional planning is conducted through the Integrated Regional Resource Planning (IRRP) process, where local stakeholders collaborate in the development of integrated solutions for maintaining a reliable supply of electricity to Ontario communities.

The objective of the IRRP process is to develop long-term electricity plans that thoughtfully integrate all relevant resource options, such as conservation and demand management, distributed generation, large-scale generation, transmission and distribution.

As per Hydro One's regional planning initiative the province is divided into three planning groups:

Group 1, Group 2 & Group 3 – Active Plans

A Regional Infrastructure Plan and an Integrated Regional Resource Plan have been completed for E.L.K.'s service territory.

Chapter 5 implements the Board's policy direction on 'an integrated approach to distribution network planning'. Regional planning is conducted through the Integrated Regional Resource Planning (IRRP) process, whereby local stakeholders collaborate in the development of integrated solutions for maintaining a reliable supply of electricity to Ontario communities. The regional planning process begins with a needs assessment performed by the transmitter, which determines whether a regional plan is required or not. If a regional plan is required, the IESO then conducts a scoping assessment to determine whether a more comprehensive Integrated Regional Resource Plan is required (led by the IESO), or a more transmission - and distribution - focused Regional Infrastructure Plan is required (led by the transmitter).

The objective of the IRRP process is to develop long-term electricity plans that thoughtfully integrate all relevant resource options, such as conservation and demand management, distributed generation, large-scale generation, transmission and distribution.

E.L.K. is part of the Windsor-Essex Region planning zone in Southern Ontario. The LDCs providing service to customers in the **Windsor-Essex** region include:

- E.L.K. Energy Inc.
- Entegrus Powerlines Inc.
- Enwin Utilities.
- Essex Powerlines Corporation.
- Hydro One Networks Inc.

A Regional Infrastructure Plan and an Integrated Regional Resource Plan have been completed for E.L.K.'s service territory. E.L.K. is included in "Group 1", which is the first group in the regional planning prioritization.

Information from the municipal development department is also used to project the amount of customer-driven activity (such as community upgrades or new commercial construction). These projects fit into the Annual Capital Budget directly, and are used to allocate the customer driven portion of the 5-year capital budget.

Infrastructure planning on a regional basis is required to ensure that regional issues and requirements are effectively integrated into E.L.K.'s planning processes, which will, in turn, help promote the cost-effective development of electricity infrastructure in the Province. The effective use of regional infrastructure planning and the inclusion of regional considerations in E.L.K.'s DS Plan is the key to ensure coordinated development and implementation of smart grid provincial strategy. It is important that the necessary investments are made in distribution and transmission systems that will best serve the interests and the future of the region.

E.L.K.'s intention is to follow the Board's directions and work to address regional planning issues as they arise. E.L.K. will assess and amend actions where appropriate. E.L.K. makes decisions based upon the most cost-effective solutions, and is considering conservation as one of the options to defer the need for infrastructure investments.

5.2 REQUIRED INFORMATION

E.L.K. has provided a copy of the Distribution System Plan (DSP) as Appendix 2A to this Exhibit.

E.L.K. has completed Appendix 2-AB Capital Expenditure Summary presenting four historical years, the 2016 Bridge Year and five planned years of capital expenditures. This is the first year for which E.L.K. has filed a DSP, and as such E.L.K. has entered the planned total capital budget

in the "Plan" column for each historical year and for the bridge year including the OEB approved amount for the last rebasing year. The variance in the 2012 actual compared to the 2012 OEB approved amount is primarily the result of a development called Jakana which did not occur until 2013 that was planned for 2012 in the amount of $161,193. Further, there was approximately $15,000 less spent on the Viscount Estates work in 2012 and some of the building improvement and tools were deferred into the following years. E.L.K. has made its best efforts to categorize historical projects into the DSP categories (System Access, System Renewal, System Service, and General Plant).

Appendix 2-AB Capital Expenditure Summary is presented in Table 2-23 below

Table 2-23

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

First year of Forecast Period:* 2017

CATEGORY	Historical Period (previous plan[1] & actual)															Forecast Period (planned)				
	2012			2013			2014			2015			2016			2017	2018	2019	2020	2021
	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual[2]	Var					
	$ '000		%	$ '000		%	$ '000		%	$ '000		%	$ '000		%	$ '000				
System Access		566,654	--		1,316,405	--		734,364	--		793,896	--		1,068,807	--	560,210	677,053	693,979	711,329	729,112
System Renewal		206,859	--		109,702	--		133,322	--		494,469	--		262,193	--	261,793	295,149	459,279	476,214	301,272
System Service			--			--			--			--			--						
General Plant		11,101	--		52,779	--		118,492	--		39,655	--		148,500	--	491,500	457,000	202,000	177,000	337,000
TOTAL EXPENDITURE	1,187,103	784,614	-33.9%	1,197,250	1,478,886	23.5%	1,650,000	986,178	-40.2%	1,412,500	1,328,020	-6.0%	1,479,500	1,479,500	0.0%	1,313,503	1,429,202	1,355,258	1,364,543	1,367,384
System O&M		$876,831	--		$ 725,313	--		$806,466	--		$1,202,297	--		$1,284,089	--	$1,542,300	$1,413,195	$1,477,747	$1,445,471	$1,461,609

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

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

Capital spending by category is designed to meet both defined customer preferences and distribution system requirements.

During the five-year period, E.L.K. is strategically planning to make leveled investments in distribution infrastructure required for system sustainment, and in the short–term, intends to concentrate on investing in general assets that support service reliability and customer preferences. Therefore, the main investment drivers are in the areas of end of useful life of the assets, business operational efficiently, reliability and customer preferences. Capital spending by category is designed to meet both defined customer preferences and distribution system requirements.

- System Access investments are planned on historical actual levels required to meet regulatory obligations for connections, upgrades and plant relocation driven by customers and third parties. E.L.K. expects that its system will continue to be able to accommodate the vast majority of requests for new load connections and for service upgrades.

- System Renewal investments are based on the requirements of asset replacement programs, mainly driven by pole replacement. Plans for replacements are based on consideration of age and condition of assets. The proactive replacement of system components prior to failure will reduce costs associated with outage response and reactive replacement. Adjustments to the programs will be completed with gathering more detailed asset condition information and records. The annual investments are leveled to ensure consistency throughout the planning process.

- System Service spending is focused on system reliability improvement projects, which are based on outage considerations, system impact, smart grid upgrade scenarios and customer preferences. E.L.K. has not experienced any major issues

with connection of existing microFIT or small FIT projects to its system, and does not expect any issues within the current five-year plan, based on the anticipated volume of new projects.

- General Plant category is focused on ensuring that adequate tools, such as OMS, are in place to support the day-to-day operations, and to improve customer communications in contingency scenarios of unplanned outages. E.L.K. has incorporated the customer preferences obtained through targeted customer research and customer engagement process.

5.3 DRIVERS BY INVESTMENT CATEGORY

System Access

The primary driver of this activity is customer service requests and mandated obligations under the Distribution System Code (DSC). This allows E.L.K. to satisfy its asset management objective of providing for the needs of customers, as well as meeting regulatory requirements. This program is justified because of customer service requests that are relatively consistent year over year, in terms of both the number of requests, and the investments required to complete the connections.

System Renewal

This capital expenditure includes all “like for like” replacement costs related to renewal of major assets (poles, reclosers, switches, etc.) because of failure, serious damage or end of useful life. Major drivers in this category are risk of failure, substandard performance and functional obsolescence.

System Services

These projects will improve system reliability, automation and/or contingency performance. Examples of projects in this category are smart grid development, installation of electronic reclosers and outage management systems. E.L.K. does not have any planned investment in system service for the DSP planning period.

General Plant

The vehicle replacements in this category are driven by E.L.K.'s evolving requirements for capital to support day-to- day business and operations activities. The timing of project-related expenditures has been determined based on adjustments related to asset condition and to end of useful life of the asset. Other investments in this category relate to IT enhancements to meet customer preferences.

For more detail, please refer to E.L.K.'s DSP in Appendix 2A of this Exhibit.

5.4 SUMMARY OF CAPITAL PROJECTS

Table 2-24 (Chapter 2 Appendix 2-AA) below presents a summary of all gross capital expenditures by project for the historical period 2012-2015, the 2016 Bridge Year and 2017 Test Year.

Table 2-24

Appendix 2-AA
Capital Projects Table

Projects	2012	2013	2014	2015	2016 Bridge Year	2017 Test Year
Reporting Basis						
Project Name #1						
Underground Asset Renewal	206,859	109,702	133,322	494,469	261,632	261,793
Sub-Total	206,859	109,702	133,322	494,469	261,632	261,793
Project Name #2						
FIT Contributions	60,300	45,000	28,893	42,300	63,900	
Sub-Total	60,300	45,000	28,893	42,300	63,900	0
Project Name #3						
Fleet - UG Truck Replacement			70,712			
Sub-Total	0	0	70,712	0	0	0
Project Name #4						
Smart Meters	57,319					
Sub-Total	57,319	0	0	0	0	0
Project Name #5						
Comber Solar	67,810					
Sub-Total	67,810	0	0	0	0	0
Project Name #6						
Cooper Estates Ph 4B	66,701					
Sub-Total	66,701	0	0	0	0	0
Project Name #7						
Cottam Woods Solar	125,965					
Sub-Total	125,965	0	0	0	0	0

Project Name #8						
Townsview Ph 3	52,865					
Sub-Total	52,865	0	0	0	0	0
Project Name #9						
Timbercreek Estates Ph 1		122,068	37,754			
3 Phase Pump Feed		25,252				
Sub-Total	0	147,320	37,754	0	0	0
Project Name #10						
Jakana Phase 4		161,193				
Sub-Total	0	161,193	0	0	0	0
Project Name #11						
ROATC Phase 7		80,885				
Sub-Total	0	80,885	0	0	0	0
Project Name #12						
Tim Horton's Harrow		51,328				
Sub-Total	0	51,328	0	0	0	0
Project Name #13						
FIT 200 Clark Street		65,634				
Sub-Total	0	65,634	0	0	0	0
Project Name #14						
Kingsville Commercial Developm	62,729					
Sub-Total	62,729	0	0	0	0	0
Project Name #15						
Notre Dame Street Project Phase 2		620,528				
Sub-Total	0	620,528	0	0	0	0
Project Name #16						
Kimball Estates Phase 4			39,500		67,015	
Sub-Total	0	0	39,500	0	67,015	0

Project Name #17						
Woodview Phase 2			103,369			
Sub-Total	0	0	103,369	0	0	0
Project Name #18						
Bacon Development Phase 4E			92,733			
Sub-Total	0	0	92,733	0	0	0
Project Name #19						
Woodslee Solar Garden			69,148	56,870		
Sub-Total	0	0	69,148	56,870	0	0
Project Name #20						
JV Energy			57,145			
Sub-Total	0	0	57,145	0	0	0
Project Name #21						
Notre Dame Street Phase 3			89,944			
Sub-Total	0	0	89,944	0	0	0
Project Name #22						
ROATC Phase 8A			102,047			
Sub-Total	0	0	102,047	0	0	0
Project Name #23						
Truax FIT		53,027				
Sub-Total	0	53,027	0	0	0	0
Project Name #24						
Shoppers Harrow				72,206		
Sub-Total	0	0	0	72,206	0	0
Project Name #25						
Agris				84,647		
Sub-Total	0	0	0	84,647	0	0

Project Name #26						
Tesla				72,916		
Sub-Total	0	0	0	72,916	0	0
Project Name #27						
225 Prince Albert					50,972	
Sub-Total	0	0	0	0	50,972	0
Project Name #28						
319 Talbot					51,816	
Sub-Total	0	0	0	0	51,816	0
Project Name #29						
Bernath					169,043	
Sub-Total	0	0	0	0	169,043	0
Project Name #30						
Cottam Woods Phase 3A					84,853	
Sub-Total	0	0	0	0	84,853	0
Project Name #31						
285 Division					79,796	
Sub-Total	0	0	0	0	79,796	0
Project Name #32						
ROATC Phase 5					111,183	
Sub-Total	0	0	0	0	111,183	0
Project Name #33						
Pumping Station #3					86,309	
Sub-Total	0	0	0	0	86,309	0
Project Name #34						
KPMG Reclass				366,021		
Sub-Total	0	0	0	366,021	0	0
Project Name #35						
Service Connections	72,965	91,490	96,768	98,936	128,000	59,000
Sub-Total	72,965	91,490	96,768	98,936	128,000	59,000

Project Name #36							
Fleet Replacement Unit #303							445,000
Sub-Total		0	0	0	0	0	445,000
Project Name #37							
186 Talbot						43,375	
Sub-Total		0	0	0	0	43,375	0
Project Name #38							
Unknown Access Projects							501,210
	171,620						
Sub-Total		0	0	0	0	0	501,210
Miscellaneous	165,955	11,101	52,779	64,843	39,655	281,606	46,500
Total	1,187,103	784,614	1,478,886	986,178	1,328,020	1,479,500	1,313,503
Less Renewable Generation Facility Assets and Other Non-Rate-Regulated Utility Assets *(input as negative)*							
Total	1,187,103	784,614	1,478,886	986,178	1,328,020	1,479,500	1,313,503

Notes:

1 Please provide a breakdown of the major components of each capital project undertaken in each year. Please ensure that all projects below the materiality threshold are included in the miscellaneous line. Add more projects as required.

2 The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the capital budget in the miscellaneous category.

Capital Expenditure variances for the 4 historical years 2012-2015, Bridge Year 2016 and Test Year 2017 above are:

2012 Board Approved and 2012 Actual. Decrease of $402,489 is primarily the result of $400,000 Notre Dame Streetlight project that was projected in 2012 which did not occur in 2012 but rather in 2013 as shown in the table above.

2012 and 2013. Increase of $694,272 is primarily the result of an extremely large one-off distribution plant relocation project for the Town of Lakeshore in which E.L.K. relocated all of its overhead assets to underground in the downtown core in order for the town to improve the streetscape and landscaping of the overall area.

2013 and 2014. The decrease of $492,708 is primarily the result of Notre Dame Street Project which was an anomaly type project in 2012 that E.L.K. relocated all of the overhead in the downtown core of Belle River to underground that did not occur in 2013. As well, there was the replacement of an Underground truck of approximately $70,000.

2014 and 2015. The increase in 2015 of $341,842 is primarily the result of an accounting entry required in 2015 to reclass some smart meter regulatory accounts in capital accounts during the IFRS transitional year.

2015 and 2016 and 2017. The minor increase of $151,480 and decrease in 2017 of $165,997 is primarily driven by demand with respect to new developments. The economy and developments have started to increase in E.L.K.'s service territory in 2016 as shown in Appendix 2AA with the significant number of projects. Further contributing to the increase is the increase in connections. 2017 access projects are unknown and are a factor driven by demand. Overall the net effect over these three years is $14,517, resulting in a consistent and achievable spending pattern.

5.5 PROJECTS WITH A LIFE CYCLE GREATER THAN ONE YEAR

E.L.K.'s accounting policy is to include projects in Fixed Assets when they are completed and put into service. Capital projects which are not yet completed are included in WIP. Capital projects with a life cycle greater than one year will be carried over from one year to the next in WIP. Once completed expenditures are removed from WIP and capitalized to fixed assets at which point they begin depreciating.

5.6 TREATMENT OF COST OF FUNDS

Borrowing costs on qualifying assets are capitalized as part of the cost of the asset based upon the weighted average cost of debt incurred on the Corporation's borrowings. Qualifying assets are considered to be those that take in excess of nine months to construct.

5.7 COMPONENTS OF OTHER CAPITAL EXPENDITURES – NON DISTRIBUTION

E.L.K. does not have other capital expenditures, such as non-distribution activities, for which it needs to provide components.

5.8 EFFICIENCIES REALIZED DUE TO DEPLOYMENT OF SMART METERS AND RELATED TECHNOLOGIES

E.L.K. has made use of both E.L.K. Operational Data Storage (Metersense) as well as the Sensus Meter website to allow E.L.K. to investigate meter issues as well as work and analyze the MDM/R reports on a daily basis. These two tools also allow E.L.K.'s customer service representatives to check customer's power on demand. This has resolved some customer inquiries immediately instead of requiring a field visit to verify power conditions.

5.9 CONSERVATION INITIATIVES

Although E.L.K. has had consistent growth in its customer base or service territory, it has not experienced a tremendous material growth, thus, E.L.K. has not had the need to consider incremental conservation initiatives to defer or otherwise avoid future infrastructure projects. This will likely remain true over the life of this Application. E.L.K. is not applying for funding through distribution rates to pursue any custom type energy efficiency programs.

6. CAPITALIZATION POLICY

6.1 CAPITALIZATION POLICY OVERVIEW

Items of property, plant and equipment ("**PP&E**") used in rate-regulated activities and acquired prior to January 1, 2014 are measured at deemed cost established on the transition date, less accumulated depreciation. All other items of PP&E are measured at cost, or, where the item is contributed by customers, its fair value, less accumulated depreciation.

Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes contracted services, materials and transportation costs, direct labour, overhead costs, borrowing costs and any other costs directly attributable to bringing the asset to a working condition for its intended use.

IFRS requires that borrowing costs related to the construction of the qualifying assets be capitalized. The corporation has applied IAS 23 to all qualifying assets that were in progress or commenced since January 1, 2014. No qualifying assets were identified and therefore no borrowing costs were capitalized for the year ended December 31, 2014.

When parts of an item of PP&E have different useful lives, they are accounted for as separate items (major components) of PP&E.

When items of PP&E are retired or otherwise disposed of, a gain or loss on disposal is determined by comparing the proceeds from disposal, if any, with the carrying amount of the item and is included in profit or loss.

Major spare parts and standby equipment are recognized as items of PP&E.

The cost of replacing a part of an item of PP&E is recognized in the net book value of the item if it is probable that the future economic benefits embodied within the part will flow to the

Corporation and its cost can be measured reliably. In this event, the replaced part of PP&E is written off, and the related gain or loss is included in profit or loss. The costs of the day-to-day servicing of PP&E are recognized in profit or loss as incurred.

The need to estimate the decommissioning costs at the end of the useful lives of certain assets is reviewed periodically. The Corporation has concluded it does not have any legal or constructive obligation to remove PP&E.

The estimated useful lives are as follows:

	Years
Buildings	50
Distribution and metering equipment	10 - 60
Other assets	5 - 15

Impairment

Financial assets measured at amortized cost

A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset.

An impairment loss is calculated as the difference between an asset's carrying amount and the present value of the estimated future cash flows discounted at the original effective interest rate. Interest on the impaired assets continues to be recognized through the unwinding of the discount. Losses are recognized in profit or loss. An impairment loss is reversed through profit or loss if the reversal can be related objectively to an event occurring after the impairment loss was recognized.

Non-financial assets

The carrying amounts of the Corporation's non-financial assets, other than materials and supplies and deferred tax assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "**cash-generating unit**" or "**CGU**"). The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss.

For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Capitalization by Component

When parts or components of an item of property, plant and equipment have different useful lives, they are accounted for as individual items (major components) of property, plant and equipment. Component costs must be significant in relation to the total cost of the item and depreciated separately over the component's useful life. Components are those which: a) are significant in relation to the total cost of the item and b) have different depreciation methods or useful life.

Components with similar useful lives and depreciation methods are grouped in determining the depreciation charge. Parts of the item that are not individually significant (remainder of the items) are combined and categorized as a single component best suited for the sum of the parts.

Depreciation

Depreciation is calculated to write off the cost of items of PP&E using the straight-line method over their estimated useful lives, and is generally recognized in profit or loss. Depreciation methods, useful lives, and residual values are reviewed at each reporting date and adjusted prospectively if appropriate. Land is not depreciated. Construction-in-progress assets are not depreciated until the project is complete and the asset is available for use.

E.L.K. has used the Typical Useful Life provided in the Kinetrics Report as its basis for assigning the estimated service life to assets. Depreciation of an asset begins in the year when it is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended. For rate setting purposes, in the first year of service, depreciation is calculated using the ½ year rule. Depreciation of an asset ceases when the asset is retired from active use, sold or is fully depreciated.

Overhead Policy

E.L.K.'s overhead policy has been reviewed by its external auditors and has been deemed IFRS compliant.

E.L.K. does not capitalize general administrative costs related to Administration, HR or Finance.

Payroll burden consists of the following benefits paid to employees: health benefits, prescription drugs, dental vision, long-term disability, bereavement time, OMERS, Workplace Safety and Insurance Board, Employment insurance, CPP, EHT and E.L.K. employees' protection equipment (safety shoes/ clothing/expendable tools). IAS 16 specifically allows for benefits as defined in IAS 19 to be included as a directly attributable cost. The payroll allocation is allocated to capital based upon labour dollars charged to capital. Benefits are accumulated in the general ledger for all employees and allocated based upon where the employees charge their time (capital jobs/maintenance).

For additional details please refer to Appendix 4A and 4D.

7. CAPITALIZATION OF OVERHEAD

7.1 OVERVIEW

E.L.K., along with its consultant KPMG, performed an analysis of all costs that were being capitalized under CGAAP in order to determine whether these costs were eligible for capitalization under IFRS. As discussed above in the "Capitalization Policy Overview" section, it was determined that no changes were required to the capitalization of overhead as a result of the transition to IFRS and that the policy as explained above is compliant with IFRS requirements.

7.2 BURDEN RATES

Standard: IAS 16 – Property, Plant and Equipment

Topic: Capitalization - Overheads

Objective:

To document the accounting policy for the capitalization of overheads.

Background:

Core Principle

The cost of an item of property, plant and equipment (PP&E) is recognized as an asset if and only if:

a) It is probable that future economic benefits will flow to the company; and
b) The cost of the item can be measured reliably.

The cost of an item of PP&E includes any costs that are directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Certain costs are explicitly prohibited from inclusion as costs of an item of PP&E:

a) Costs of opening a new facility;
b) Costs of introducing a new product or service (including advertising and promotion);
c) Costs of conducting business in a new location or with a new class of customer (including costs of staff training)
d) Administration and other general overhead costs; and,
e) Day-to-day servicing costs.

IAS 16 does not indicate what constitutes an item of PP&E. Judgment is required when applying the core principle.

Directly attributable

The term "directly attributable" is not defined in IAS 16. The specific facts and circumstances surrounding the cost and the ability to demonstrate that the cost is directly attributable to an item of PP&E is critical to establishing whether the cost should be capitalized. The cost must be attributed to a specific item of PP&E at the time it is incurred. The incurrence of that cost should aid directly in the construction effort making the asset more capable of being used than if the cost had not been incurred.

General and administrative overhead

IFRS does not provide a definition of general and administrative overhead (G&A). The specific facts and circumstances surrounding the nature of the costs and the activity associated with it must be considered to determine if it is directly attributable to an item of PP&E.

G&A costs typically benefit the organization as a whole or areas of the organization more broadly rather than contributing directly to bringing a physical asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The more the nature of a particular cost strays from being directly attributable to an item of PP&E, then the more likely it is that the cost will be determined to be in the nature of G&A.

Day-to-day servicing costs

Day-to-day servicing costs are defined as costs of labour and consumables and may include the cost of small parts. The purpose of these expenditures is often described as for the "repairs and maintenance" of the item of PP&E.

Whether to capitalize repairs and maintenance (R&M) is dependent on the interpretation of paragraph IAS 16.12.

Interpretations:

1. Interpret wording in paragraph 12 to mean "that under no circumstances do R&M get capitalized". Example – Capitalizing the cost of a repair to the value of the vehicle, this is *not* permitted under IFRS
2. Interpret wording in paragraph 12 to mean that R&M costs do not get capitalized to the cost of the item of PP&E that has been repaired but the repair cost becomes part of the operating cost of an item of PP&E that is used to construct another item of PP&E. The operating costs are then capitalized to the constructed item of PP&E. This is permitted under IFRS since the cost is directly attributable to bringing a physical asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Feasibility studies and pre-construction activities

Normally, feasibility studies are not capitalized under IFRS as these costs do not always result in asset construction, and therefore may not meet the criteria of providing a future economic benefit. Additionally, the associated costs must be directly attributable to an item of PP&E. Pre-construction activities (such as design work) prior to a decision to go ahead with a capital project do not qualify for capitalization.

Considerations:

Canadian GAAP allowed for capitalization of general and administrative overhead, training costs, etc. while IFRS does not.

The Ontario Energy Board (OEB) requires electricity distributors to be in full compliance with IFRS requirements as applicable to non-regulated enterprises and only where the Board authorizes specific alternative treatment for regulatory purposes is alternative treatment acceptable.

E.L.K. performed a complete review of its costs included in overheads.

The analysis that follows is based upon the overheads that have historically been included for capitalization.

Payroll burden

Payroll burden consists of the following benefits paid to employees: health benefits, prescription drugs, dental vision, long-term disability, bereavement time, OMERS, Workplace Safety and Insurance Board, Employment insurance, CPP, EHT and E.L.K. employees' protection equipment (safety shoes/ clothing/expendable tools). IAS 16 specifically allows for benefits as defined in IAS 19 to be included as a directly attributable cost. The payroll allocation is allocated to capital based upon labour dollars charged to capital. Benefits are accumulated in the general ledger for all employees and allocated based upon where the employees charge their time (capital jobs/maintenance).

Truck burden

Truck burden consists of fuel, vehicle maintenance, repairs and license renewals. Trucks and company vehicles are used on the job site and are directly related to the construction of an asset as they are required to construct the asset. Truck expenses are allocated to capital based upon the timesheets recorded for the truck.

Fuel, amortization related to the truck, truck insurance and license renewals can be capitalized because they are costs required to keep the trucks in running order and are directly attributable to constructing the asset and bringing it to its intended use. Amortization is not currently included in the truck allocation under CGAAP.

E.L.K. is taking the position that repairs and maintenance costs are operating costs of the trucks and therefore can be capitalized since they are directly attributable costs meeting IFRS criteria.

Stores costs

Currently, a stores overhead is not applied to inventory used on capital jobs.

Under IFRS, general and administrative expenses are not capitalized. General and administrative expenses tend to benefit the organization as a whole rather than a single job (or item of PPE).

Typically, maintaining stores are more efficient than having parts delivered direct to the job site as they are needed. This fact indicates that stores costs are more in the nature of general and administrative overhead and are not capitalized.

Engineering costs

Currently, an engineering burden is not applied to capital jobs, since all E.L.K. employees complete timesheets and charge time spent on capital jobs directly to the job.

Conclusion:

E.L.K. will capitalize all costs, including the above overheads, when the cost is directly attributable to bringing the item of PP&E to the location and condition necessary for it to be capable of operating in the manner intended by management.

Any general and administrative costs that have not been discussed above will not be capitalized.

The following changes were made to the capitalization policy as a result of the transition to IFRS:

Payroll burden:

No changes were identified for this burden.

Truck burden:

Amortization of the vehicles should form part of the truck burden. Since the amortization is not significant, the portion allocated to capital would also be insignificant, no change to the burden will be made.

Engineering burden:

No changes were identified for this burden.

Stores burden:

No changes were identified for this burden.

7.3 COSTS OF ELIGIBLE INVESTMENTS FOR THE CONNECTION OF QUALIFYING GENERATION FACILITIES

E.L.K. has incurred costs for the connection of qualifying generation facilities of $176,493. As outlined Exhibit 9, this amount was recorded in account 1531- Renewable Generation Connection Capital Deferral Account and has been addressed by using the direct benefit and provincial benefit method outlined in Appendices 2-FA through 2-FC. These appendices form the mechanism to calculate the applied-for capital costs and the shares of total costs to be recovered from all Ontario ratepayers (i.e. the provincial benefit amount) and the E.L.K.'s customers (i.e. the direct benefit amount). The appendices also provide a revenue requirement calculation for the asset costs to be recovered annually in accordance with O.Reg. 330/09 – Provincial Rate Protection. The direct benefit amount of 30,003 has been added to the 2017 opening balance of account 1835 - Overhead Conductors and Devices in order recover this amount by including it in the rate base.

7.4 NEW POLICY OPTIONS FOR THE FUNDING OF CAPITAL

On September 18, 2014, the Board released Report of the Board New Policy Options for the Funding of Capital Investments: The Advanced Capital Module and in it the Board has established the following mechanism to assist distributors in aligning capital expenditure timing and prioritization with rate predictability and smoothing:

> The review and approval of business cases for incremental capital requests that are subject to the criteria of materiality, need and prudence are advanced to coincide with the distributor's cost of service application. To distinguish this from the Incremental Capital Module ("**ICM**"), this new mechanism will be named the Advanced Capital Module (or "**ACM**").

> Advancing the reviews of eligible discrete capital projects, included as part of a distributor's Distribution System Plan and scheduled to go into service during the IR term, is expected to facilitate enhanced pacing and smoothing of rate impacts, as the distributor, the Board and other stakeholders will be examining the capital projects over the five-year horizon of the DSP.

E.L.K. does not have any discrete capital projects within the five-year horizon that it believes would require this new policy option. The capital investment required by E.L.K. from 2015 through 2020 is relatively flat and E.L.K. believes it can be managed through the rates proposed within this application.

7.5 ADDITION OF ICM ASSETS TO RATE BASE

E.L.K. has not applied for approval of ICM Assets and therefore has no such assets added to its rate base.

Service Quality and Reliability Performance

E.L.K. records and reports annually the following Service Reliability Indices:

- SAIDI = Total Customer-Hours of Interruptions/Total Customers Served
- SAIFI = Total Customer Interruptions/Total Customers Served
- CAIDI = Total Customer-Hours of Interruptions/Total Customer Interruptions

These indices provide E.L.K. with annual measures of its service performance that are used for internal benchmarking purposes when making comparisons with other distribution companies (e.g. to better understand the rankings that will support the OEB's Incentive Rate Making

Mechanism and Performance Based Regulation). They are reported below in accordance with Section 7.3.2 of the OEB's Electricity Distribution Rate Handbook.

E.L.K. follows the Board's Reporting and Record Keeping Requirements Guideline to report its service quality indicators annually. In accordance with the Filing Requirements, Table 2-25 is provided below and is consistent with Board Appendix 2-G, Service Quality Indicators. The table provides the performance measurements for the last five (5) historical years – 2011 through 2015.

E.L.K.'s performance results over the 2011 to 2015 period meet or exceed the Board's approved standards. E.L.K.'s performance is within the range of acceptable performance over the previous five years and no corrective action is required.

Table 2-25 – Service Quality and Reliability Performance

Appendix 2-G
Service Reliability and Quality Indicators
2011 - 2015

Service Reliability

Index	Including outages caused by loss of supply					Excluding outages caused by loss of supply					Excluding Major Event Days				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
SAIDI	3.580	0.190	1.240	3.970	5.360	0.800	1.220	1.050	1.120	0.610	0.800	1.220	1.050	1.120	0.610
SAIFI	1.710	0.060	0.470	1.800	0.570	0.410	0.340	0.440	0.500	0.210	0.410	0.340	0.440	0.500	0.210

5 Year Historical Average

SAIDI	2.868		0.960		0.960
SAIFI	0.922		0.380		0.380

SAIDI = System Average Interruption Duration Index
SAIFI = System Average Interruption Frequency Index

Service Quality

Indicator	OEB Minimum Standard	2011	2012	2013	2014	2015
Low Voltage Connections	90.0%	100.0%	96.8%	94.4%	92.9%	94.9%
High Voltage Connections	90.0%	N/A	N/A	N/A	N/A	100.0%
Telephone Accessibility	65.0%	96.4%	97.0%	97.4%	97.0%	97.5%
Appointments Met	90.0%	96.6%	100.0%	96.2%	100.0%	100.0%
Written Response to Enquires	80.0%	89.6%	94.4%	90.2%	98.7%	93.3%
Emergency Urban Response	80.0%	100.0%	100.0%	100.0%	92.9%	96.9%
Emergency Rural Response	80.0%	N/A	N/A	N/A	N/A	N/A
Telephone Call Abandon Rate	10.0%	2.0%	1.0%	1.0%	1.0%	1.0%
Appointment Scheduling	90.0%	100.0%	98.9%	97.3%	100.0%	100.0%
Rescheduling a Missed Appointment	100.0%	100.0%	N/A	N/A	100.0%	100.0%
Reconnection Performance Standard	85.0%	N/A	N/A	100.0%	100.0%	100.0%

Appendix 2A - Distribution System Plan

APPENDIX 2-A – DISTRIBUTION SYSTEM PLAN

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5.0 INTRODUCTION

E.L.K. has prepared this Distribution System Plan ("**DSP**") in accordance with the Ontario Energy Board's ("**OEB's**") Chapter 5 Consolidated Distribution System Plan Filing Requirements dated March 28, 2013 (the "**Filing Requirements**") as part of its 2016 Cost of Service Application (the "**Application**").

E.L.K. supplies electrical service to customers within the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville. **E.L.K.** had 11,635 customers as of the end of 2015, including over 10,302 residential customers, with a service territory of 22 sq. km. All of **E.L.K.**'s service territories are embedded within **Hydro One** Networks Inc. ("**Hydro One**"). The map in Appendix A depicts **E.L.K.**'s service territory boundaries.

E.L.K. owns, maintains and operates approximately 89 km of overhead primary distribution feeders and 61 km of underground primary distribution circuits including 7 27.6 kV feeders and 1 8.32kV feeders. Bulk power system supply is provided by four **Hydro One** owned transformer stations.

As indicated in the Customer Counts by Customer Class Graph found on page 8, the customer base of **E.L.K.** is mainly comprised of residential customer's. As of 2015, the annual electricity consumption on **E.L.K.**'s distribution system, excluding the embedded distributors, was evenly split between commercial customers and residential customers. Residential customers represent over 89% of **E.L.K.**'s customer count.

Over the last three years alone, **E.L.K.** has connected more than 144 customer-owned rooftop and ground-mounted solar facilities that have the potential to feed more than 2,922 kilowatts of electricity into the Ontario grid under the Independent Electricity System Operator's ("**IESO**") Feed-in-Tariff ("**FIT**") and micro**FIT** programs.

- On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act*, 1998, directed the OEB to establish CDM targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of **E.L.K.** to require **E.L.K.**, as a condition of its license, to achieve 8.3 GWh of net persistent cumulative energy savings and 2.7 MW of net persistent summer peak demand savings, over the period of January 1, 2011 through to December 21, 2014.On March 31, 2014, the OPA received direction from the Minister of Energy to develop a new Conservation First Framework (CFF) with the goal of achieving 7 TWh of province-wide electricity conservation between 2015 and 2020. The 7 TWh energy only targets would be allocated to Ontario **LDCs**, with 16.2 GWh of net incremental persistent electricity savings allocated to **E.L.K.** as its share of the provincial target. **E.L.K.**'s electricity distribution license was amended to include a requirement to make **CDM** programs available to its customers in an effort to achieve reductions in electricity consumption. **E.L.K.** monitors its performance against comparable LDCs and strives to continuously improve on **CDM** initiatives. Effective January 1, 2015, the **OPA** merged with the **IESO**, with the **IESO** taking on oversight responsibility and support of **LDC** Conservation First Framework **CDM** delivery.

This **DSP** was prepared to provide to the OEB and all interested stakeholders:

- An overview of **E.L.K.**'s asset planning objectives and goals;
- A review of **E.L.K.**'s asset-related operational performance in the five-year historical period;
- A preview of **E.L.K.**'s planned expenditures for the forecast period that illustrate **E.L.K.**'s plan for further-improving its asset-related performance to achieve the four performance outcomes established by the **OEB**; and
- A detailed justification of **E.L.K.**'s planned capital expenditures in the test year.

An integrated approach was taken for investment planning on **E.L.K.**'s distribution system. All investments have been planned and optimized together, including for example:

- System renewal and expansion;
- Renewable generation connections;
- Customer connections and regulatory requirements;
- System growth and planning criteria;
- General plant in support of daily operations;
- Smart grid development and implementation; and
- Regionally planned infrastructure.

This allows **E.L.K.** to develop a **DSP** that allocates its resources in an optimal way to achieve cost-effective planning over the planning horizon of five years starting in the test year, which is 2017 in the case of this filing.

Employing this longer term approach requires **E.L.K.** to consider future customer needs and any required changes to its distribution system in advance, thereby enhancing **E.L.K.**'s ability to plan ahead and respond to the evolving needs of customers in a timely manner while managing and leveling the impacts of these expenditures on consumer rates.

E.L.K. is part of the Group 1 Windsor-Essex region. The lead transmitter in this region is **Hydro One**. Other **LDC's** in the region include:

- Entegrus Powerlines Inc.
- Enwin Utilities
- Essex Powerlines Corporation
- **Hydro One** Networks Inc.

E.L.K. has actively participated in both the Integrated Regional Resource Planning Process ("**IRRP**") and Regional Infrastructure Planning Process ("**RIP**") of its region to:

- Assist the **IESO** and **Hydro One** in addressing the near-, mid-, and long-term issues and requirements on the regional level;

- Integrate regional plans into its own distribution system planning process to ensure that any distribution system requirements identified during the Regional Planning Process are included in this **DSP**; and
- Align its own **DSP** planning with planning at the regional level to achieve planning efficiency in the long –term.

More information on **E.L.K.**'s consultation with other stakeholders during the regional planning process will be provided in Section 5.2.2. On October 18, 2012, the Ontario Energy Board released its Report, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (the "**RRFE**").

Smart grid development has been made an integral part of **DSP** under the **RRFE**. To **E.L.K.**, smart grid development has the following meanings:

- Transforming features of its current system to optimize system operational performance;
- Capturing and utilizing real-time data to better understand customer preferences and give more control to customers on their own electricity usage ; and
- Modifying the current system, where necessary, to accommodate and facilitate distributed generation.

Together, these meanings outline **E.L.K.**'s overall strategy for moving towards a smarter grid.

Innovative technologies provide the mechanisms for implementing the desirable functionalities of a smarter grid. **E.L.K.** is aware of the existence of these technologies and continues to options for the distribution system.

Taking a performance-based approach for regulating electricity distributors under the **RRFE**, the **OEB** has established four performance outcomes to be achieved by electricity distributors, including the following:

- **Customer Focus**: services are provided in a manner that responds to identified customer preferences;
- **Operational Effectiveness**: continuous improvement in productivity and cost performance is achieved; and utilities deliver on system reliability and quality objectives;
- **Public Policy Responsiveness**: utilities deliver on obligations mandated by government (e.g. in legislation and in regulatory requirements imposed further to Ministerial directives to the Board); and
- **Financial Performance**: financial viability is maintained; and savings from operational effectiveness are sustainable.

This is **E.L.K.**'s first Application under the **RRFE**.

E.L.K.'s service territory consists of the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville, as shown on the maps in Appendix A.

VISION/MISSION/TACTICS

E.L.K.'s vision is "An Energy Company Powering Sustainable Communities".

Mission

E.L.K.*'s mission statement is to provide the highest quality service to our customers by ensuring that the electrical system is designed, constructed and maintained to ensure its reliability, safety and affordability while increasing shareholder value.*

Core Objectives

E.L.K.'s priorities are defined in its Corporate Goals

- Provide a safe and reliable electricity distribution system with the capacity to meet the expectations of our customers and support local economic growth.
- Promote and practise excellence in safety.
- Establish the lowest retail rates possible without compromising the financial integrity of the Corporation in compliance to our Shareholder's direction and Corporate Strategic Plan.

This application is consistent with **E.L.K.**'s Corporate Mission and Corporate Goals as outlined below.

The rates applied for as part of this Application are required to:

Maintain current capital investment levels in infrastructure to ensure a safe, reliable distribution system.

Continue with operating expenses necessary to maintain and operate the distribution system, meet customer service expectations and ensure regulatory and engineering compliance.

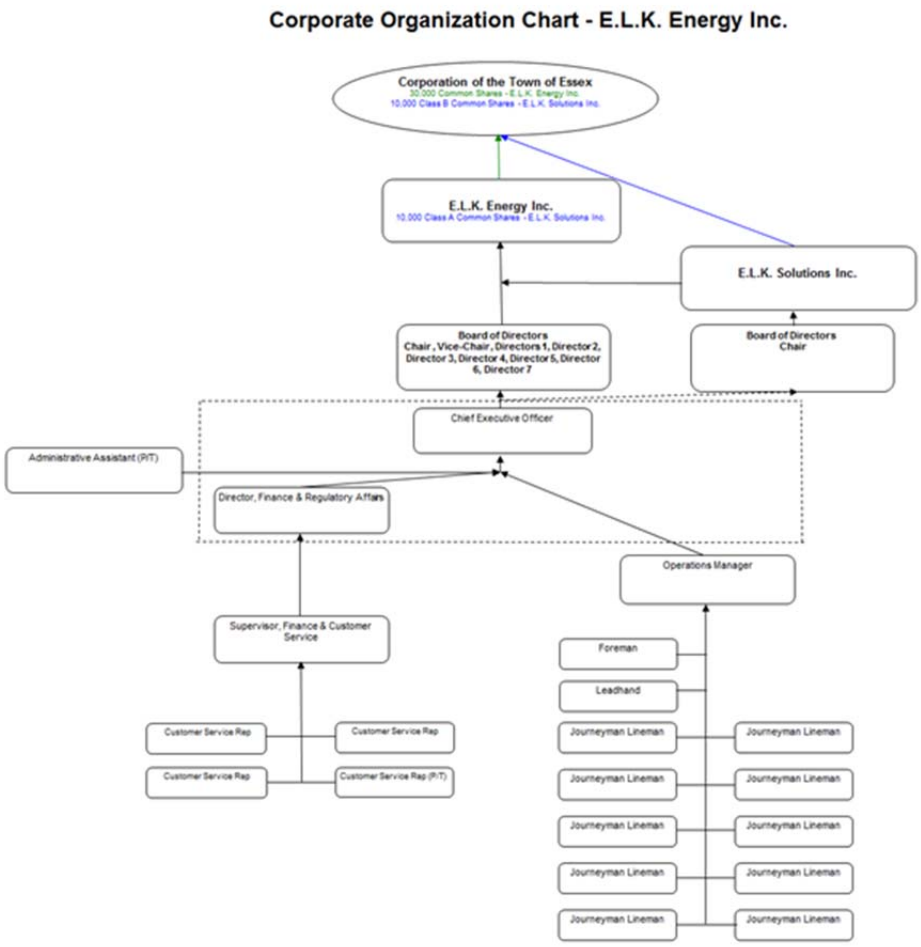
Maintain appropriate staffing requirements, including training and preparing for succession planning, and provide outstanding customer service.

To provide a reasonable rate of return to the Shareholder.

Meet all regulatory obligations.

GOVERNANCE

Shown below is the corporate structure of **E.L.K.** Energy Inc.



E.L.K. Energy Inc. Incorporated

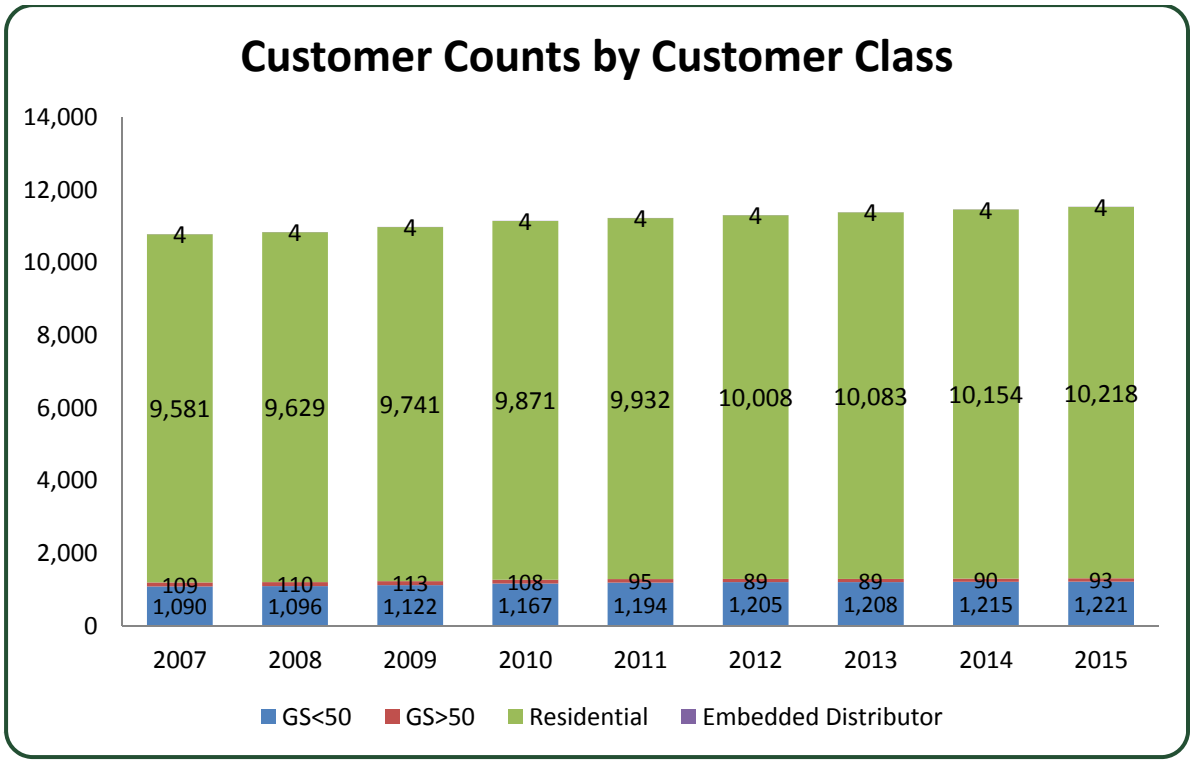
E.L.K. Incorporated is a Local Distribution Company (LDC) whose function is to distribute electrical energy to its customers. This regulated company is responsible for all capital and maintenance work on the distribution plant (poles, wires, transformers both overhead and underground), as well as customer billing, and services related to the distribution of electricity.

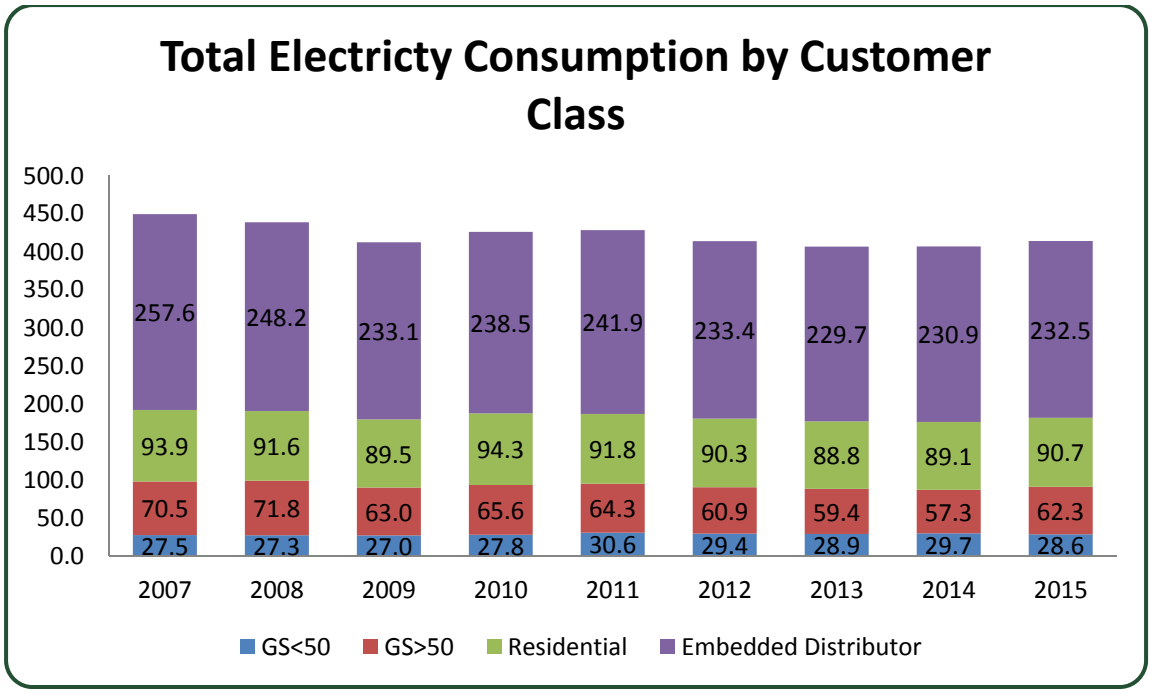
E.L.K. Solutions Inc.

E.L.K. Solutions Inc. is the deregulated company that was set up as a retail affiliate. This company is responsible for street light work, water heater rentals and sentinel light rentals.

E.L.K. CUSTOMER BASE SUMMARY

Over 87% of **E.L.K.** customers are residential, whereas 13% are small business or industrial based. Exhibit 3 provides detailed information about **E.L.K.**'s customer base and customer growth.


Customer Counts by Customer Class
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
4
9,581
109
1,090
9,629
110
1,096
9,741
113
1,122
9,871
108
1,167
9,932
95
1,194
10,008
89
1,205
10,083
89
1,208
10,154
90
1,215
10,218
93
1,221
2007
2008
2009
2010
2011
2012
2013
2014
2015
GS<50
GS>50
Residential
Embedded Distributor


Total Electricty Consumption by Customer Class
500.0
450.0
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
257.6
93.9
70.5
27.5
248.2
91.6
71.8
27.3
233.1
89.5
63.0
27.0
238.5
94.3
65.6
27.8
241.9
91.8
64.3
30.6
233.4
90.3
60.9
29.4
229.7
88.8
59.4
28.9
230.9
89.1
57.3
29.7
232.5
90.7
62.3
28.6
2007
2008
2009
2010
2011
2012
2013
2014
2015
GS<50
GS>50
Residential
Embedded Distributor

MONTHLY RATES & CHARGES

Appendix B shows a detailed breakdown of the Monthly Rates for 2016.

SUMMARY OF ENERGY USAGE

The graph below summarizes **E.L.K.**'s energy usage in terms of annual billed kW/kWh for 2007 to 2015.

By Class	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual
Customer/ Connections	13,656	13,697	13,823	13,981	14,054	14,143	14,229	14,317	14,399
kWh	257,563,115	248,215,770	233,076,332	238,502,360	241,928,636	233,351,046	229,730,887	230,942,888	232,502,517
kW from applicable classes	341,211	329,106	323,294	314,610	315,146	304,435	299,341	308,160	307,207

Refer to Appendix C – Total Billed kW/kWh per Customer Class for a detailed breakdown by customer type.

SERVICE AREA MAP

*Refer to Appendix A for a map of **E.L.K.**'s Service Area.*

5.0.3 Distribution System Plan Framework

5.0.3.1 Integrated Planning

The intention underlying DS Planning at **E.L.K.** encourages a process of "continuous improvement." **E.L.K.** has adopted the following as part of the planning process:

- Establish the objectives and processes necessary to deliver results in accordance with the expected outcomes. Start, on a small scale, to test possible effects and financial feasibility. Develop a DS Plan, prioritizing budgets, resources, and timelines.
- Implement the Plan and collect data for analysis. Develop projects' design and execution, preparing status reports, and implementing planned activities.
- Study the actual results and compare against the expected results to ascertain any differences. Evaluate any deviations in implementation from the Plan, and evaluate the appropriateness and completeness of the Plan to enable the execution. This Plan elaborates on **E.L.K.**'s Performance Outcomes in the later sections of the document. **E.L.K.**'s Performance Monitoring Scorecard (Appendix E) represents an approach to managing utility performance through specific measurable key performance indicators.
- Recommend improvements and adjustments to the initial plan; determine the course of corrections and modifications to the plan.

In this DS Plan, **E.L.K.** also describes the areas where it has been determined that the asset management process, systems and data need to be improved. **E.L.K.**'s DS network provides an essential service to the community and needs to be reliable and sustainable. The electricity

distribution infrastructure assets are capital-intensive and have long life. **E.L.K.** will continue to monitor and optimize the network performance, further refine effective investment strategies and refocus activities, as needed, to meet established targets.

To facilitate better planning, prioritization and pacing of capital expenditures, **E.L.K.** is using an integrated approach to planning. This means **E.L.K.**'s capital expenditure plan consolidates all categories of system investments, including investments to renew and expand the distribution system. The DSP will be amended, as required, with information about investments that will be identified during the regional planning process, and will include investments to accommodate the connection of renewable generation or to implement a smart grid.

This is the first effort of **E.L.K.** to use an integrated framework approach. **E.L.K.** first developed a long term Distribution Asset Management Plan (DAMP) in 2012. The current plan, however, consolidates information that includes data about renewable generation (**REG**), smart grid and other components compliant with the requirements of Chapter 5.

ASSET MANAGEMENT SYSTEMS

Asset management systems used by **E.L.K.** include inspection and maintenance databases, paper records of inspection and maintenance activities, reliability database, asset attribute databases and AutoCAD Map 3D.

E.L.K.'s strategy with respect to asset management is to build the information system for assets around AutoCAD Map 3D. Connectivity to other systems such as the databases enhances the sophistication of the entire asset management product. **E.L.K.** does not have a SCADA system.

5.0.3.2 Longer-Term Planning Horizon

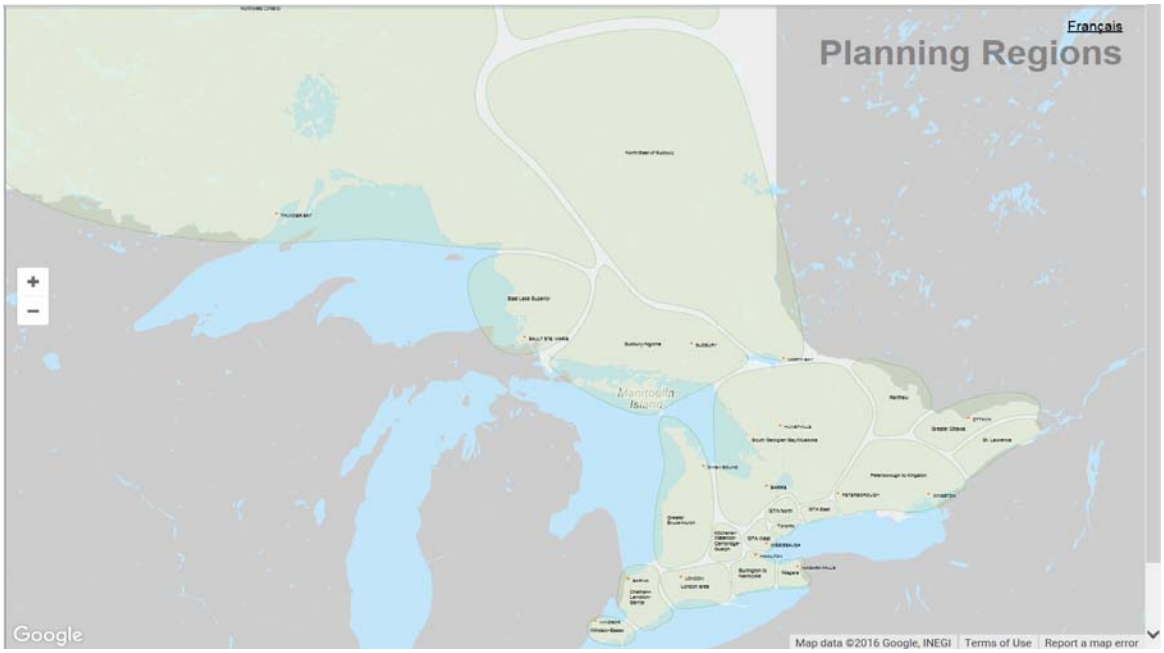
This DSP encompasses projections and forecasts for the 2016 - 2021 timeframe. It is intended that the DSP will be reviewed on a periodic basis, and amended as new information becomes available.

The planning horizon extends to a five (5) year period, (in terms of rate setting 2016 is a bridge year, 2017 is a test year, and 2018 - 2021 represent forecasted years – 2017 to 2021 represents the 5 year forecast), based on Chapter 5 requirements for Consolidated Distribution System Planning. Under the RRFE, a planning horizon of five (5) years is required to support integrated planning and better alignment of **E.L.K.**'s planning cycles with rate-setting cycles. A longer-term approach enhances the predictability necessary to facilitate planning and decision-making by customers and distributors. This also facilitates the cost-effective and efficient implementation of the DSP and meeting of OEB expectations in the areas of performance outcomes. The asset assessments are also based on a five (5) year planning period. It is very likely that new developments, not currently identified here, will arise at any given time, and will be incorporated into the plan.

In order to support integrated planning and better align the distributor planning cycles with rate-setting cycles, the approach to longer-term planning (a minimum of five years) has incorporated the following elements into the plan.

Longer-Term Planning Element	Approach
Enhance the predictability necessary to facilitate planning – including regional planning – and decision-making by customers and distributors	• Heighten the emphasis on regionally-planned infrastructure • Complete system renewal and expansion – refresh assets in totality, as per assets' lifecycle using a longer-term
Facilitate the cost-effective and efficient implementation of distributor DS Plans and, thereby, the achievement of customer service and cost performance outcomes *Manage consumer rate impacts*	• Enhancement of customer communication and implementation of Outage Management System • Improve customer communication • Develop detailed implementation plans • Enhance Conservation Demand Management (CDM) Program and **REG** to help manage rate impacts • Consider system impacts of CDM results • Assess capital investment scenarios in terms of risk mitigation and longer-term smoothing of customer rate impacts

Regional planning is conducted through the Integrated Regional Resource Planning (IRRP) process, where local stakeholders collaborate in the development of integrated solutions for maintaining a reliable supply of electricity to Ontario communities. The map below shows Ontario's 21 electricity regions.



The objective of the IRRP process is to develop long-term electricity plans that thoughtfully integrate all relevant resource options, such as conservation and demand management, distributed generation, large-scale generation, transmission and distribution.

As per **Hydro One**'s regional planning initiative the province is divided into three planning groups:

- Group 1, Group 2 & Group 3 – Active Plans

A Regional Infrastructure Plan (**RIP**) and an **IRRP** have been completed for **E.L.K.**'s service territory. Both plans were considered in preparing the **E.L.K.**'s DSP. The IRRP did identify some short term needs for the area and a new transmission line and station are being constructed. Allocation of the cost is before the OEB so they were not available as the DSP was being prepared. As such no costs were included in the DSP for the needs identified by the IRRP. The DSP may have to be amended once the costs are known.

5.03.04 Smart Grid Development and Implementation

SMART GRID OBJECTIVES

CUSTOMER CONTROL

E.L.K.'s goal is to provide the customer with information and tools to promote conservation of electricity, and to expand on opportunities for demand response, price information and load control.

E.L.K. has conducted customer research with respect to conservation to assist in addressing customer preferences and identifying services that will provide customers with the ability to take action in regard to their energy use. Customers have expressed specific interest in enhanced communications and information tools.

Customer Education

E.L.K. intends to provide information and education to its customers. Customers will be empowered with tools that will enable them to take advantage of the new services and data access. **E.L.K.** seeks to increase customer awareness of data availability, and is developing new service offerings in the areas of conservation and demand management. For example, bill inserts and on bill messaging is included monthly on customer bills covering topics of interest and relevance to customers. **E.L.K.** has also implemented e care; approximately 1400 customers have signed up to use a web portal and have access to their specific data. In addition, **E.L.K.** has implemented an in-office library containing useful information for all customers to use and learn about the electricity industry, market and programs. The specific data the customer has access to:

- view consumption history
- billing history
- View and print multiple years of bill history
- Ability to look up multiple accounts by single owner
- Receive electronic bill
- Ability to access on-line forms such as **E.L.K.** Tariff of Rates and Charges, New Customer Package, Pre-Authorization form, Conditions of Service, Privacy Policy, Dispute resolution Policy

Data Access

E.L.K. has launched e-care as described in Exhibit 1, and is exploring opportunities to enhance the use of electronic data.

E.L.K. is engaging customers through promotion of data initiatives (e.g. e-Billing, e-care) and encouraging initiatives which are environmentally friendly and which shape the future of the community.

Power System Flexibility and Adaptive Infrastructure

E.L.K.'s goal is to accommodate the use of emerging, innovative and energy saving technologies and system control applications.

E.L.K.'s longer-term plans include implementing an Outage Management System - OMS and increasing system reliability by improving responses to system events.

5.0.4 Asset Related Performance Objectives & Factors

E.L.K. has utilized the OEB's RRFE to develop a standardized and comprehensive performance-based approach to asset management. This approach promotes the achievement of four performance outcomes to the benefit of existing and future customers: customer focus, operational effectiveness, public policy responsiveness, and financial performance. **E.L.K.** aims to align with customer interests, to consistently support the achievement of important public policy objectives, and deliver long-term value for money.

E.L.K.'s mission is to provide the highest quality service to our customers by ensuring that the electrical system is designed, constructed and maintained to ensure its reliability, safety and affordability while increasing shareholder value.

E.L.K.'s short-term intent/goal includes investment in system renewal to increase system reliability. However, in consideration of long-term goals, **E.L.K.** will maintain level investments in distribution assets to balance infrastructure spending and to avoid peaks and valleys this area. **E.L.K.** seeks to achieve the results of optimized cost effective lifecycle Asset Management with a focus on maintaining a high level of customer satisfaction. **E.L.K.** believes in delivering quality services to customers, at a cost that represents good value for money.

E.L.K. practices highly ethical business standards, and aims to provide economically sound business opportunities for its shareholders, while maintaining appropriate commitments to:

- Distribution system reliability
- Customer satisfaction
- Respect and protection of the environment
- Distribution of high quality power, that is safe for its customers
- Meeting changing needs and desires of consumers/customers

E.L.K. seeks a fair and reasonable rate of return on its rate base while ensuring sufficient cash flow to sustain capital investments and OM&A.

To facilitate performance monitoring and eventually distributor benchmarking, the Board mandated the capturing of key performance information into a Scorecard (Appendix E). The Scorecard matrix covers four outcomes, and was previously described. The information in the Scorecard is organized in a manner that facilitates evaluations and pinpoints areas of required improvement.

E.L.K. plans to achieve OEB's Operational Effectiveness performance outcomes through improvement initiatives in productivity and cost performance. **E.L.K.**'s asset management and capital expenditure planning processes are designed to identify and take advantage of opportunities for continuous improvements, while delivering on OEB explicitly stated system reliability and quality objectives.

Maintenance programs and operational practices are also designed with reliability in mind. Capital investments are aimed at sustaining system performance by proactively upgrading deteriorating assets and building redundancy in the system.

DS Plan Addresses Four Outcomes

DS Plan filings must support the Board's assessment as to whether a distributor has and will continue to achieve the four performance outcomes the Board has established for electricity distributors as explained below. Section 5.4.5 explains the specific criteria the Board will use to evaluate whether a DS Plan and in particular the material11 projects/activities proposed for cost recovery in a DS Plan address these four outcomes.

Customer Focus

A DS Plan filing must demonstrate that distribution services are provided in a manner that responds to identified customer preferences. As indicated in the provisions that follow, this is accomplished by providing information on customer engagement to identify preferences; the value proposition the DS Plan represents for customers (economic efficiency and cost-effectiveness); and on the factors relating to customer preferences or input from customers and participants in a Regional Planning Process that were considered in the course of planning investment projects and activities.

Operational Effectiveness

DS Plans must show that a distributor's asset management and capital expenditure planning processes are designed to identify and take advantage of opportunities for continuous improvements in productivity and cost performance, while delivering on a distributor's explicitly stated system reliability and quality objectives.

Public Policy Responsiveness

A distributor's DS Plan must explain how the expenditure planning process has been integrated and rationalized so as to permit timely and appropriate expenditures in relation to a distributor's government-mandated obligations (e.g., in legislation or regulatory requirements imposed further to Ministerial directives to the Board).

Financial Performance

DS Plans must show that a distributor's financial viability and operational effectiveness will endure over the long term including by sustaining efficiencies gained through prudent capital-related expenditure planning and DS Plan execution.

Based on historical trends and achievements, **E.L.K.** is shaping its future plans and investment decisions to address OEB expectations in the following areas:

- Customer Focus
- Financial Performance and Economic Efficiency Performance
- Public Policy Responsiveness, Health & Safety and Environmental Performance
- Operational Effectiveness, Reliability, Consistency and Improvement

E.L.K.'s Asset Management (AM) method includes the development of prioritized projects and program levels tied to mitigation of risk.

APPROACH TO INVESTME NT STRATEGY AND DSP

E.L.K. has always strived to continually improve its value to its customers. The creation of the long-term distribution asset management plan in 2012 is part of a continuum to ensure system investments align with customer needs.

In this DSP, **E.L.K.** has further improved its asset management process by implementing an additional level into **E.L.K.**'s longer-term planning processes. Discretionary capital investments

are segregated into sustainment “programs” and capital “projects”. These are assessed by analyzing asset condition data, developing investment levels (from minimum to optimized), and then relating these levels to customers’ needs, as determined through various engagement methods (including direct survey).

5.1 GENERAL & ADMINISTRATIVE MATTERS

5.1.1 Investment categories

Capital spending by category is designed to meet both defined customer preferences and distribution system requirements. As per OEB guidelines, the spending categories are described as follows:

- System Access investments are planned on historical actual levels required to meet regulatory obligations for connections, upgrades and plant relocation, driven by customers and third parties.

- System Renewal investments driven by asset condition to derive replacement programs. Plans for replacements are based on consideration of the number, type, age and condition of assets. The proactive replacement of system components prior to failure will reduce costs associated with outage response and reactive replacement.

- System Service spending is focused on system reliability improvement projects, which are based on outage considerations, system impact, smart grid upgrade scenarios and customer preferences. These projects are assessed against corporate business objectives including customers stated preferences. The final stage of a voltage conversion is also included in this category and will have a positive impact on the reduction of line losses.

- General Plant category is focused on ensuring that adequate tools, such as OMS, are in place to support the day-to-day operations, and to improve customer communications in contingency scenarios of unplanned outages.

The annual investments are leveled to ensure consistency throughout the planning process. **E.L.K.** has incorporated the customer preferences obtained through targeted customer research and customer engagement process.

	OEB Example Drivers	OEB Example Projects/Activities	E.L.K. Drivers	E.L.K. Program Category
System Access	Customer Service Requests	- New customer connections - Modifications to existing customer connections - Expansions for customer connections or property development	Customer Service Requests	- Apartment, Commercial, Industrial Customer Connections - Distribution System Modifications / Expansions for Customers - Expansions for New Residential Subdivisions - New Residential Service Connections

	OEB Example Drivers	OEB Example Projects/Activities	E.L.K. Drivers	E.L.K. Program Category
	Other 3rd party infrastructure development requirements	- System modifications for property or infrastructure development (e.g. relocating pole lines for road widening)	Other 3rd party infrastructure development requirements	- System Relocations Property Development
	Mandated Service Obligations (Distribution System Code, Conditions Of Service, etc.)	- Metering - Long Term Load Transfer	Mandated Service Obligations	- Metering Installations
System Renewal	Assets/asset systems at end of service life due to: - Failure - Failure risk - Substandard performance - High performance risk - Functional Obsolescence	Programs to refurbish/replace assets or asset systems; e.g. batteries; cable (by type); cable splices; civil works; conductor; elbows & inserts; insulators; poles (by type); physical plant; relays; switchgear; transformers (by type); other equipment (by type)	Assets/asset systems at end of service life due to: - Failure - Failure risk	- Distribution System Replacement - Distribution System Transformer replacement upgrades
System Service	Expected changes in load that will constrain the ability of the system to provide consistent service delivery	- Property acquisition - Capacity upgrade (by type); e.g. phases; circuits; conductor; voltage; transformation; regulation - Line extensions	Expected changes in load that will constrain the ability of the system to provide consistent service delivery	- Transformer Stations & Distribution Stations - Distribution System Feeder Infrastructure
	System operational objectives: - Safety - Reliability - Power Quality - Other performance/ functionality	- Protection & control upgrade; e.g. reclosers; tap changer control/relays; transfer trip - Automation (new/upgrades) by device type/function - SCADA - Distribution loss	System operational objectives: - Safety - Reliability - Power Quality - Other performance/ functionality	- SCADA Infrastructure - SCADA / Remotely Operated Switches

	OEB Example Drivers	OEB Example Projects/Activities	E.L.K. Drivers	E.L.K. Program Category
		reduction		
General Plant	System capital investment support System maintenance Support Business operations efficiency Non-system physical support	- Land acquisition - Structures & depreciable improvements - Equipment and tools - Supplies - Finance/admin/billing software & systems - Rolling stock - Intangibles (e.g. land rights; capital contributions to other utilities)	System capital investment support System maintenance support Business operations efficiency Non-system physical support	- Building / Fixtures - Office Equipment / Graphics - IT Capital - Fleet / Rolling Stock - Major Tools

5.1.2 Investments Related to Renewable Energy Generation

E.L.K. has not identified the need for renewable generation enabling capital expansion expenditures. **E.L.K.** has evaluated the capacity of its feeders to accept generation and does not have any restrictions beyond current standards for the integration of **REG**. There are no other **REG** investments contemplated at this time.

5.1.3 Time of Filing

All distributors are required to file a DSP as specified here when filing a cost of service application for the rebasing of their rates under the 4th Generation IR or a Custom IR application. Distributors proposing to use the 'Annual IR Index' method for 2014 rates are not required to use Chapter 5 when filing an application. However, any distributor using the 'Annual IR Index' method must make a Chapter 5 filing within five years of the date of the most recent Board decision approving their rates in a cost of service proceeding; and is required to do so at five year intervals thereafter while using the Annual IR Index method. The Board may also require a DSP to be filed in relation to leave to construct, Incremental Capital Module or Z-factor applications.

This DSP is filed as part of E.L.K.'s Application.

5.1.4 Planning In Consultation with Third Parties

5.1.4.1 Regional Planning and Consultation

Prior to filing a DS Plan and at a time and in a manner to be determined in consultation with the participants in a Regional Planning Process, a distributor must:

1. Provide regionally interconnected distributors (including host and/or embedded where applicable), the transmitter to which the distributor is connected and the OPA (where applicable) with information on:

- forecast load at existing (and proposed, if any) points of
- forecast renewable generation connections and any planned network investments to accommodate the connections;
- investments involving smart grid equipment and/or systems that could have an impact on the operation of assets serving the regionally interconnected utilities; and
- the results of projects or activities involving the study or demonstration of innovative processes, services, business models, or technologies; and on the projects or activities of this nature planned by the distributor over the forecast period.

2. Consult with regionally interconnected distributors (including host and embedded where applicable) and transmitter(s) to which the distributor is connected in preparing their DS Plan.

As of the current date, **E.L.K.** has contacted **Hydro One** regarding the status of the Regional Planning Process, and has attached a response letter from **Hydro One** in Appendix D.

E.L.K. has provided the following information to **Hydro One** as part of the Regional Planning Process:

- Load forecasts;
- Forecasted **REG** connections;
- Investments in Smart Grid; and
- Projects planned during the forecast period.

E.L.K. is part of the Windsor-Essex Region planning zone in Southern Ontario. The LDCs providing service to customers in the Windsor-Essex region include:

- **E.L.K.** Energy Inc.
- Entegrus Powerlines Inc.
- Enwin Utilities
- Essex Powerlines Corporation
- **Hydro One** Networks Inc.

A Regional Infrastructure Plan and an Integrated Regional Resource Plan have been completed for **E.L.K.**'s service territory. **E.L.K.** is included in "Group 1", which is the first group in the regional planning prioritization.

Information from the municipal development department is also used to project the amount of customer-driven activity (such as community upgrades or new commercial construction). These projects fit into the Annual Capital Budget directly, and are used to allocate the customer driven portion of the 5-year capital budget.

5.1.4.1.2 Consultation with Regionally Interconnected Distributors

E.L.K. intends to consult regionally interconnected distributors and transmitter(s) to which the distributor is connected through the Regional Planning Process, and as the need arises. This plan will be amended as the Regional Plans are being further developed.

5.1.4.2 Renewable Energy Generation Investments

5.1.4.2.1 Information Relating to REG Investments

Ontario runs two renewable generation programs. FIT ("**Feed-in Tariff**") applicants are those customers setting up solar or other renewable generation equipment to generate more than 10 kW of electricity at a time. MicroFIT applicants are those customers applying to generate electricity at a level less than or equal to 10 kW of electricity at a time.

To date, **E.L.K.** has connected 139 microFIT projects, totalling approximately 1,241.84 kW of capacity in **E.L.K.**'s distribution system. Additionally, **E.L.K.** has connected 5 FIT applications, totalling 1,680 kW. These projects combine for total capacity of approximately 2,921.84 kW of renewable generation through the FIT and microFIT programs, all of which remain active to date.

E.L.K. achieved 100% of 'Renewable Generation Connection Impact Assessments ("**CIA**") Completed On Time'. **E.L.K.** has completed all required CIAs to date.

E.L.K. has not identified the need for renewable generation enabling capital expansion expenditures. **E.L.K.** is aware of the capacity of its feeders to accept generation and does not have any restrictions beyond current standards for the integration of **REG**. There are no other **REG** investments being contemplated at this time.

5.1.4.2.2. IESO Comment Letter

The **IESO** comment letter is attached in Appendix D.

5.2 DISTRIBUTION SYSTEM PLAN

5.2.1 Distribution Plan Overview

5.2.1.1 The DSP

Key elements of the DSP that affects its rates proposal, especially prospective business conditions driving the size and mix of capital investments needed to achieve planning objectives

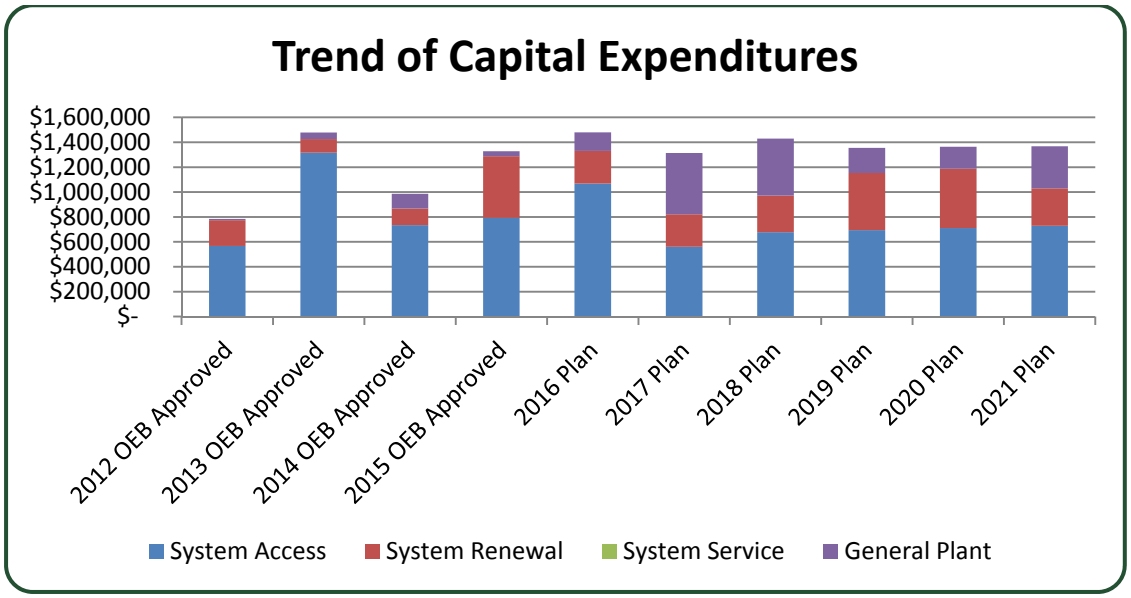
E.L.K.'s DSP is a comprehensive collaboration of information with inputs from numerous sources starting from our core business objectives, asset management objectives and performance evaluation, and our consultation with major stakeholders. The drivers are addressed under the headings of System Access, System Renewal, System Services and General Plant. The planning objectives and processes are explored in detail in Section 5.4.2.1, but in summary include:

- Ensure proper allocation of investments to meet regulatory obligations;
- Ensure adequate level of investment in the renewal of distribution system assets;
- Determine the acceptable level of expenditures required to meet existing and future demand levels;
- Ensure proper allocation of investments in general plant assets; and

- Determine impacts to financials, and adjust spending as required.

The output of this process is a sustainable, levelized five-year capital plan for the forecast period. The **DSP** was developed with the objective, to not only address the identified short- and mid-term issues on the distribution system, but also to prepare for foreseeable future changes and requirements on the system to achieve sound and effective financial planning in the long term. A snapshot of the capital expenditure plan for the forecast period is provided in the Table below. Investments are grouped by primary drivers and objectives into four categories including System Access, System Renewal, System Service, and General Plant.

	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
System Access	$ 1,068,807	$ 560,210	$ 677,053	$ 693,979	$ 711,329	$ 729,112
System Renewal	$ 262,193	$ 261,793	$ 295,149	$ 459,279	$ 476,214	$ 301,272
System Service	$ -	$ -	$ -	$ -	$ -	$ -
General Plant	$148,500.00	$491,500.00	$457,000.00	$202,000.00	$177,000.00	$337,000.00
Total Expenditure	$1,479,500	$ 1,313,503	$ 1,429,202	$ 1,355,258	$ 1,364,543	$ 1,367,384



System Access

System Access investments are modifications to the existing system that will allow **E.L.K.** to provide future customers with access to its electricity services. These investments are often trigged by customer requests and are completed to fulfill **E.L.K.**'s service obligations to other third parties. For **E.L.K.**, System Access investments in historic years typically include:

- Connecting new customers;
- Line relocations; and
- Metering projects.

For this planning cycle, System Access activities are projected to continue as per previous years. Residential subdivisions and connections make up the bulk of activities in this area.

System Renewal

System Renewal investments involve replacement and refurbishment of system assets to maintain the system's ability to provide reliable electricity services to customers. As assets become aged and reach end of life **EOL**, these investments are necessary to rectify and maintain the overall asset health condition at an acceptable level to prevent decline in system reliability performance and mitigate safety risks to **E.L.K.** employees and the public.

E.L.K. reviews the asset data base and outage information for its key distribution system assets on an annual basis to identify problematic assets that have reached, or will be reaching, end of life in the near term. The 2015 review recommended that the following assets be targeted for replacement:

- Direct buried primary cable;
- Live front pad mounted transformers and;
- Wood poles.

E.L.K.'s decisions on asset replacement and refurbishment are based on asset conditions, age and outage statistics. Therefore, System Renewal investments proposed in this DSP include proactive replacements to address targeted assets identified in the review.

System Service

System Service investments include upgrades or expansions of the existing system to support demand growth of existing customers or create flexibility to improve operation efficiency. **E.L.K.** has no plans for any system service investments within this plan.

General Plant

General Plant investments are made to maintain assets that are not part of the distribution system, but are used to support day to day business and operational activities. This generally includes:

- Land and buildings;
- Tools and equipment;
- Fleet of Vehicles;
- Information Systems Hardware; and
- Information Systems Software.

E.L.K. will continue to renew the fleet as described in the vehicle replacement program in Appendix G.

5.2.1.2 Sources of Cost Savings Expected (OEB Filing Req. 5.2.1b)

Sources of cost savings expected to be achieved over the forecast period through good planning and DSP execution

EXPECTED SOURCES O F COST SAVINGS

The sustaining asset replacement programs identified in the System Access, System Renewal, System Service and General Plant categories are expected to have a number of positive impacts on future O&M costs:

- The proactive replacement of underground primary cables and live front transformers at or near TUL will reduce costs associated with outage response and reactive replacement. Historically this has had the single most impact on the SAIDI CAIDI numbers outside of loss of supply.
- Proactive pole replacement prior to failure of the in-service pole or associated components will reduce costs associated with outage response and reactive replacement.
- The replacement programs allow for replacement of legacy units that can no longer be economically maintained. The type of replacement units now available results in a much less labour-intensive program of inspection and corrective maintenance as required, as opposed to the periodic preventive maintenance required for legacy assets.
- Standardized Designs save money both by reducing the engineering costs of the project as well as reducing installation costs and material stock costs. **E.L.K.** is part of the Utilities Standard Forum ("**USF**") group to standardize installation drawings for use in the projects in this DSP.
- Devices such as portable computing devices and the use of web-based applications to replace paper-based data collection and processes will improve operational efficiency, reduce the possibility of data translation errors, and provide cost savings at the time of collection, and the time of data entry. Improved data is used to optimize the planning process for future projects.

PERIOD COVERED BY THE DS PLAN

E.L.K.'s DS Plan includes 2012-2016 as the historical period, 2016 is the bridge year and 2017-2021 as the forecast period (with a 2017 Test Year). This is the first DSP filing and historical budgetary is not required.

VINTAGE OF THE INFOR MATION

The information is current as of December 2015.

5.2.2 Coordinated Planning with Third Parties

The Board direction is on 'an integrated approach to distribution network planning'. As indicated above, a Regional Infrastructure Plan, and an Integrated Regional Resource Plan have been completed for **E.L.K.**'s service territory. **E.L.K.** is included in "Group 1", which is the first group in the regional planning prioritization.

To meet the OEB's expectations with respect to coordinated planning with third parties, **E.L.K.** has initiated or participated in the following consultation processes with major stakeholders:

- Customer stakeholder engagement;
- Consultation with regional and municipal governments;
- Integrated Regional Resource Planning with the **IESO**, **Hydro One**, and other LDCs;
- Renewable energy generation planning with the **IESO**; and
- Consultation with Conservation and Demand Management ("CDM") program partners – **IESO**.

For each of these consultation processes, descriptions are provided in sections below:

- Purpose of the consultation;
- Role of **E.L.K.** in the consultation;
- Participants in the process;
- Nature and timing of the final deliverables; and
- Impact of the consultation process on this DSP.

5.2.2.1 Stakeholder Engagement

B. Customer Engagement Survey

E.L.K. is committed to sound financial planning and budgeting that balances quality electricity distribution services with affordability for ratepayers while fostering innovation and making investments in energy infrastructure that will benefit the community in the long term.

In 2016, **E.L.K.** initiated a detailed Customer Engagement Survey with research firm Oracle Poll.

The 2016 Customer Engagement Survey was designed to gain customer feedback in some of the following key areas:

- Customer Service
- Online Customer Service
- Social Media
- Your Hydro Bill
- New Technologies
- Reliability/Power Outages/Safety
- Providing Value to Customers
- Future Investments

Overall, customer satisfaction with **E.L.K.** was high, with 88% of respondents rating **E.L.K.**'s performance as good or excellent. Respondents were also generally satisfied with reliability of the system, with 92% rating the overall reliability of their electrical services as very good or satisfactory.

E.L.K. plans to use feedback received on communicating with customers about planned power outages and reducing power interruptions to help design its capital investment and business plans by implementing projects to specifically address reliability issues in the future. This approach puts stakeholders at the heart of **E.L.K.**'s decision-making processes, and ensures that investment decisions are made to directly support their needs.

5.2.2.2 Consultation with Regional and Municipal Governments

Consultations with regional and municipal governments have not occurred, however, **E.L.K.** works closely with the municipal planning departs for plan review of projects within **E.L.K.**'s service area. These specific project discussions are generally initiated by the project owner and participants in the discussion typically include the MTO, MOE, local municipality, **E.L.K.** and other third party utilities such as communications and the gas company. The outcome of such specific project discussions include, for example, plans and direction for the project currently being constructed or a request for a concept design and estimate to relocate assets related to an upcoming project. **E.L.K.** will continue to follow a similar path in the future by including such agencies in project discussions.

5.2.2.3 Integrated Regional Resource Planning ("IRRP") with the IESO

As mentioned above in the introduction at Section 5.1, **E.L.K.** is a participant in the regional planning process of the **Windsor-Essex region**, of which it is part of. This region includes the municipalities of Amhurstburg, Essex, Harrow, Kingsville, Lakeshore, LaSalle, Leamington, Pelee Island, Tecumseh, and Windsor, as well as portions of Chatham-Kent. The IRRP process in this region has been completed and led by the **IESO** to assess the reliability needs within this region to develop an integrated plan for the appropriate mix of investments to address electricity needs.

Other participants in this process include:

- Entegrus Powerlines Inc.
- Enwin Utilities
- Essex Powerlines Corporation
- **Hydro One** Networks Inc.

E.L.K. has participated in monthly meetings with the other three local LDC's as well as **Hydro One** distribution, whose distribution system territory surrounds the **E.L.K.**'s service territory.

This region currently has an **IRRP** document under development. One project has been identified by the Windsor-Essex Working Group to address the near term needs in this region:

- **Supply to Essex County Transmission Reinforcement Project** (**SECTR**)

The **IRRP** has been completed by the **IESO** in 2015.

E.L.K. is a participant in the RIP Process for the **Windsor-Essex** region. This process is initiated and led by **Hydro One**, the lead transmitter in the region. Other participants in this process include:

- Entegrus Powerlines Inc.
- Enwin Utilities
- Essex Powerlines Corporation
- **Hydro One** Networks Inc.

The purpose of the **RIP** process is to develop and implement wires solutions for the one project that was identified during the **IRRP** process. The project is:

- **Supply to Essex County Transmission Reinforcement Project (SECTR)**

The cost allocation associated with the **SECTR** project is under review with the **OEB**.

Therefore, **E.L.K.** has not included any cost implication over this **DSP** planning period.

The Planning Status Letter received from **Hydro One** is provided in Appendix D.

5.2.2.4 Renewable Energy Generation Planning with the IESO

E.L.K. has consulted with the **IESO** on numerous occasions in an effort to keep both groups up to date on the **REG** developments as well as to review the available thermal and short circuit current limitations for several of the transformer stations in the Windsor-Essex area. **E.L.K.** prepared and submitted a **REG** investment plan to the **IESO** in July 2016 and received a comment letter on the subject referenced in Appendix D.

5.2.2.5 CDM Program Partners – IESO

E.L.K. has delivered CDM programs to its customers since 2004, and has regularly consulted with the **IESO** since its introduction as the provincial authority with electricity conservation responsibilities. This includes the **IESO** "Every Kilowatt Counts" 2007- 2010 CDM tranche followed by the 2011-2014 **IESO** "saveONenergy" CDM tranche. Through these CDM frameworks **E.L.K.** participated in **IESO** program design and change management, utilized CDM delivery funding received from the **IESO**, and completed a variety of regular monthly and annual reporting requirements under the Master Agreement with the **IESO**.

At the end of 2014, **E.L.K.**'s net cumulative energy savings was 97% of its target. **E.L.K.** continues its efforts to instill a conservation culture through promotion and adoption of conservation and demand management programs. These outreach programs make a difference and have become an integral component of **E.L.K.**'s communications and customer engagement strategy.

Now, new framework to achieve 7 terawatt hours of electricity savings between 2015 and 2020 has been developed by the OPA (now known as the Independent Electricity System Operator, the "**IESO**") working with electricity distributors. With this new framework distributors will assume greater leadership in the development of new programs. This is to be completed through the use of Conservation and Demand Management programs. The implementations of

these CDM programs are mandatory. These programs will encompass all customer segments including residential, small business and industrial as well as low income. **E.L.K.** Energy Inc.'s targets have been established at 16.9 GWh which represents a twofold increase from the 8.25 GWh target for 2011-2014.

The year 2015 acted as a bridge year for most LDC's as each LDC must also submit a detailed CDM plan to be approved by the **IESO** and OEB.

The CDM Plan is a detailed road map that is a year by year plan for meeting the 2020 target. It includes an achievable potential calculator that identifies the area of local CDM opportunities by sector, end use and building type based on local information. Further, a cost effectiveness calculator is used that calculates cost effectiveness metrics required for the CDM Plan. Program savings are forecasted through program archetypes and different program scenarios. Lastly within this plan, a detailed financial modelling tool is to be included. LDCs must compare funding options, calculate potential performance incentives and allocate administrative amounts to various programs. This continues to be a goal of **E.L.K.**'s with the exception that **E.L.K.** believes it has taken the next step in trying to pursue great results. This is responsive to customer feedback of approximately 86% of respondents in the Oracle Poll survey feel the value **E.L.K.** provides is satisfactory which includes CDM initiatives.

E.L.K. selected Greensaver to assist **E.L.K.** with its conservation programs and is also working with a Roving Energy Manager, new in 2016. This shift to Greensaver will allow **E.L.K.** to take advantage of such a well-known company of great size, and utilizing their efficiencies and resources effectively as they perform similar duties for up to 51 other utilities in the province.

GreenSaver is Ontario's leading not for profit energy efficiency organization. For more than 25 years, they have delivered energy conservation programs for government, agencies and utilities, assisting homeowners and businesses across Ontario to reduce their energy and environmental footprint. They are currently the face of 51 utilities

Over the years, **E.L.K.** has worked closely with many commercial and residential customers, vendors, service providers and local agencies. Since 2007, **E.L.K.** has offered Heating & Cooling Incentive, Peaksaver, Peaksaver Plus, Product Coupons, Fridge and Freezer pick up, Home Assistance, Small Business Lighting, Audit Funding, High Performance New Construction; and Retrofits.

REGIONAL PLANNING PROCESS

E.L.K. actively participated in the IRRP and IRP process. As of the current date, **E.L.K.** has contacted **Hydro One** regarding the status of the Regional Planning Process, and has attached a response letter from **Hydro One** in Appendix D.

IESO COMENT LETTER ON REG INVESTMENTS

The **IESO** comment letter is attached in Appendix D.

5.2.3 Performance Measurement and Performance Reporting

E.L.K. uses a set of performance measures to continuously monitor and evaluate its achievement with respect to the four performance outcomes established by the OEB particularly

in respect of the Electricity Distributers Scorecard (Scorecard). Most of these measurements are required by the OEB for the DSP filing, while some are not. Regardless of requirement, these measurements are recorded as they are considered meaningful in the case of **E.L.K.**

The performance measures are outlined in the Scorecard at Appendix E and in the Table below.

Performance Outcomes	Performance Categories	Measures
Customer Focus	Service Quality	New Residential/Small Business Connected On Time
		Scheduled Appointments Met On Time
		Telephone Calls Answered On Time
	Customer Satisfaction	First Contact Resolution
		Billing Accuracy
		Customer Satisfaction Survey Results
	Customer Bill Impacts	Percentage Average Total Bill Impact
		Average Dollar Impact
	Power Quality	Power Quality and Electrical Disturbances
Operational Effectiveness	Safety	Public Safety
		Electrical Safety Authority (ESA) Audits
		Injury Rates
	System Reliability	SAIDI (Including and Excluding LoS)
		SAIFI (Including and Excluding LoS)
		CAIDI (Including and Excluding LoS)
	Asset Management	Distribution System Plan Implementation Progress
	Cost Control	Total Cost per Customer
		Total Cost per Km of Line
		Total Cost per MWh of Electricity Consumed
Public Policy Responsiveness	CDM	Net Annual Peak Demand Savings
		Net Cumulative Energy Savings
Financial Performance	Financial Ratios	Liquidity: Current Ratio
		Leverage: Total Debt to Equity Ratio
		Profitability: Achieved Regulated Return on Equity

I. Definition of Customer Focus Metrics

Service Quality

New Residential/Small Business Connected On Time

The utility must connect new service for the customer within five business days 90% of the time, unless the customer agrees to a later date. This timeline depends on the customer meeting specific requirements ahead of time (such as no electrical safety concerns in the building, customer's payment information complete, etc.) **E.L.K.**'s target is >=90%.

Scheduled Appointments Met On Time

For appointments during the utility's regular business hours, the utility must offer a window of time that is not more than four hours long and must arrive within that window 90% of the time. **E.L.K.**'s target is >=90%.

Telephone Calls Answered On Time

During regular call centre hours, the utility's call centre staff must answer phone calls within 30 seconds of receiving the call directly or of having the call transferred to them 65% of the time. **E.L.K.**'s target is >=65%.

Customer Satisfaction

Performance metrics added by the OEB in 2014 include First Contact Resolution and Billing Accuracy. **E.L.K.** has historically not tracked these metrics and will be developing processes to monitor and report in these areas.

The OEB also added a requirement to report on Customer Satisfaction Survey Results. In 2015, as part of Active engagement with customers, **E.L.K.** understands its customer preferences and assists the organization in shifting focus in order to deliver services in alignment with customer needs. A recent study conducted by Oracle Poll, indicated that 75% of respondents were satisfied, good or very good and 14% not knowing.

Customer Bill Impacts

Two measures can be used to quantify the impact of **E.L.K.**'s rate application on customers' electricity bills:

- Percentage Average Total Bill Impact; and
- Average Dollar Impact.

Further information pertaining to the causes of these bill impacts can be found in Exhibit 8.

In preparing this application, **E.L.K.** has considered the impacts on its customers, with a goal of minimizing those impacts. Table 1 1 in Exhibit 1 provides a summary of total bill impacts ($ and %) for typical customers in all rate classes. These impacts reflect E.L.K's proposal for a two year disposition period for the RSVA – Global Adjustment amount. This rate mitigation strategy allows all classes to have a total bill impact of less than 10%.

Table 1-1: Total Bill Impacts

Rate Class	Monthly kWH	Monthly kW	$ Change	% Change
Residential	750		$7.93	5.9%
General Service < 50 kW	2,000		$24.72	7.2%
General Service > 50 kW	55,000	170	$801.91	8.2%
Street Lights	70	0.2	$0.28	2.0%
Sentinel Lights	70	0.2	$1.30	9.9%
Unmetered Scattered Load	700		$7.73	6.4%
Embedded Distributor	1,000,000	2,000	($4,775.54)	(2.9%)

Incorporated in the overall monthly bill impact is the effect of the following major components of the electricity bill:

- Distribution rates (monthly service charge and volumetric rates);
- Disposition of deferral and variance accounts:
- Revised Retail Transmission rates;
- Wholesale Market Service rates; and
- Loss Factors.

Power Quality

In response to a customer power quality concern, where the utilization of electricity adversely affects the performance of electrical equipment, **E.L.K.** will perform an investigative analysis to attempt to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data and/or use of power and power quality measurement tools. Connection of power measurement tools will be at the demarcation point or nearest safely accessible point of connection. Upon determination by **E.L.K.** that the power quality concern is deemed to be a system delivery issue where industry standards are not being met, **E.L.K.** will recommend and/or take appropriate mitigation measures. **E.L.K.** will use appropriate industry standards (such as International Electrotechnical Commission ("IEC"), Institute of Electrical and Electronics Engineers ("IEEE"), or CSA Group ("CSA") standards) and good utility practice as a guideline. If the problem lies on the customer side of the system and, provided that the problem does not impact other customers connected to the system, **E.L.K.** will indicate as such to the customer, but take no further action.

Customers' electrical equipment can produce undesirable system disturbances that have an adverse impact on the distribution system. Customers are required to consult with **E.L.K.** when planning to install equipment that may cause disturbances. **E.L.K.**'s limits on voltage distortion are 3% for individual voltage harmonic distortion and 5% for total harmonic distortion.

Given the nature of the concern, all power quality requests are investigated immediately and efforts to ameliorate concerns, if any are needed, are taken care of right away. As these issues are resolved on a case-by-case as needed basis, **E.L.K.** relies only on a record of occurrences. This record is kept by way of work order form. While this is not a formal tracked metric in the

same manner of other metrics considered and discussed in this DSP, **E.L.K.** does keep record of any raised Power Quality occurrences.

As power quality issues are difficult to track and quantify, specifically as the inputs come from customer feedback in many cases, a target for Power Quality issues is equally difficult to set. Generally, **E.L.K.** has attempted to reduce power quality issues on a year to year basis through its asset management and capital planning. **E.L.K.** will continue to maintain this 'target' in a general sense.

II. Definition of Operational Effectiveness Metrics

Safety

Public Safety

Under directive of the OEB, the Electrical Safety Authority ("**ESA**") convened and met with an **LDC** Public Electrical Safety Measure Working Group in October and November 2014 to establish a public electrical safety measure for the LDCs' annual OEB **Scorecard**.

The ESA's working group concluded its work in April 2015. The ESA recommended to the OEB in April 2015 a scorecard public safety measure that includes three components:

1. Public Awareness of Electrical Safety,
2. Compliance with Ontario Regulation 22/04 (**O. Reg. 22/04)**, and
3. The Serious Electrical Incident Index.

The OEB reviewed the ESA's proposed measure and accepted the ESA's recommendations for the definitions, approach to establishing performance targets, and implementation dates for tracking and reporting related to the public safety measure.

E.L.K. monitors safety related incidents. Employee safety is monitored. E.L.K plans to measure the public's level of awareness of electrical safety.

ESA Audits

ESA audits of **E.L.K.** are conducted on an annual basis under Ontario **O. Reg. 22/04**. The audits are completed by the Quality Systems Assessment Registrar ("**QUASAR**"). QUASAR is qualified by the ESA to conduct audits under **O. Reg. 22/04**.

The purpose of the audit is to assess the extent of compliance of the distributor to **O. Reg. 22/04**, to measure whether the distributor has met the electrical requirements established for the design, construction, and maintenance of electrical distribution systems in **O. Reg. 22/04**.

E.L.K. Targets to achieve full compliance of O**. Reg. 22/04,** meaning zero "Non- compliance" and "Needs improvement" in future **ESA** audits.

System Reliability

SAIDI

The system average interruption duration index ("SAIDI") is an indicator of system reliability that expresses the average length of outage customers experience in the year. All planned and unplanned interruptions of one minute or more are used to calculate this index. It is defined as the total hours of power interruptions normalized per customer served and is expressed as:

SAIDI Formula

$$\text{SAIDI} = \frac{\text{Total Customer Hours of Interruptions}}{\text{Total Number of Customers Served}}$$

E.L.K.'s target range for **SAIDI** is 0.21-1.70 under normal operating conditions.

SAIFI

The system average interruption frequency index ("**SAIFI**") is an indicator of the average numbers of interruptions each customer experiences. All planned and unplanned interruptions of one minute or more are used to calculate this index. It is defined as the number of interruptions normalized per customer served and is expressed as:

SAIFI Formula

$$\text{SAIFI} = \frac{\text{Total Customer Interruptions}}{\text{Total Number of Customers Served}}$$

E.L.K.'s target range for SAIFI is 0.50-1.51 under normal operating conditions.

CAIDI

The customer average interruption duration index ("CAIDI") is an indication of the speed at which power is restored after an interruption. All planned and unplanned interruptions of one minute or more are used to calculate this index. It is defined as the average duration of interruptions in the year and is expressed as follows:

CAIDI Formula

$$\text{CAIDI} = \frac{\text{Total Customer Hours of Interruption}}{\text{Total Number of Customer Interruptions}}$$

E.L.K.'s target value for CAIDI is 0.85.

Asset Management

Performance metrics added by the OEB in 2014 include monitoring the cost efficiency and effectiveness with respect to planning quality and DSP implementation. **E.L.K.** has historically not tracked these metrics and will be developing processes to monitor and report in these areas. Metrics will include:

- Physical project progress vs plan;
- Financial project progress vs. plan; and
- Actual vs. planned cost of work completed.

Cost Control

Total Cost per Customer

Total cost as the sum of a distributor's Capital Costs and Operation, Maintenance and Administration ("**OM&A**") costs, including certain adjustments to make the costs more comparable between distributors per reporting period. This amount is then divided by the total number of customers that the distributor serves. **E.L.K.** does not have a target value for this measure. Performance is evaluated through benchmarking, using information from the OEB scorecard that is published annually for all LDCs. **E.L.K.**'s target is to achieve and maintain high standards and high OEB scorecard ranking as compared to its peers for lowest total cost per customer.

Total Cost per km of Line

The total cost per customer is calculated as the sum of a distributor's capital costs and OM&A costs, including certain adjustments to make the costs more comparable between distributors per reporting period. This amount is then divided by the total number of kilometers of line that the distributor operates to serve its customers. **E.L.K.** does not have a target value for this measure. Performance is evaluated through benchmarking, using information from the OEB scorecard that is published annually for all **LDC**s. **E.L.K.**'s target is to achieve and maintain high standards and high **OEB** scorecard ranking as compared to its peers for lowest total cost per km of line operated.

III. Definition of Public Policy Responsiveness Metrics

Conservation and Demand Management

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the Ontario Energy Board Act, 1998, directed the OEB to establish CDM targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of **E.L.K.** to require **E.L.K.**, as a condition of its license, to achieve 8.3 GWh of net persistent cumulative energy savings and 2.7 MW of net persistent summer peak demand savings, over the period of January 1, 2011 through to December 21, 2014.On March 31, 2014, the OPA received direction from the Minister of Energy to develop a new Conservation First Framework (CFF) with the goal of achieving 7 TWh of province-wide electricity conservation between 2015 and 2020. The 7 TWh energy only targets would be allocated to Ontario LDCs, with 16.2 GWh of net incremental persistent electricity savings allocated to **E.L.K.** as its share of the provincial target. **E.L.K.**'s electricity distribution license was amended to include a requirement to make CDM programs available to its customers in an effort to achieve reductions in electricity consumption. **E.L.K.** monitors its performance against comparable LDCs and strives to continuously improve on CDM initiatives. Effective January 1, 2015, the OPA merged with the **IESO**, with the **IESO** taking on oversight responsibility and support of LDC Conservation First Framework CDM delivery.

Net Energy Savings

Net energy savings (kWh) are reductions in total energy consumption. **E.L.K.**'s target for net cumulative energy savings for the 2015-2020 timeframe is 16.2 GWh by December 31, 2020.

IV. Definition of Financial Performance Metrics

Financial Ratios

Liquidity: Current Ratio

The current ratio is a financial ratio that measures whether or not the LDC has enough resources to pay its debts over the next 12 months. It is calculated as: Liquidity = Current Assets / Current Liabilities.

Leverage: Total Debt to Equity Ratio

Leverage ratios show the degree to which the LDC is leveraging itself through its use of borrowed money. It is calculated as:

$$\text{Leverage Ratio} = \frac{\text{Total Debt (including short-term and long-term debt)}}{\text{Total Equity}}$$

Profitability: Achieved Regulated Return on Equity

This is the distributor's achieved Regulated Return on Equity earned in the preceding fiscal year. The reported return is calculated on the same basis as was used in establishing the distributor's base rates. This measures the use of assets and control of expenses to generate a rate of return.

Profitability is the board-approved Return on Equity that is embedded in the distributor's base rates.

All of the above financial ratios are set out in the OEB scorecard and applied by **E.L.K.** for its performance evaluations.

5.2.3.2 Summary of Performance Over The Historical Period (OEB Filing Req. 5.2.3b)

b) Provide a summary of performance and performance trends over the historical period using the methods and measures (metrics/targets) identified and described above. This summary must include historical period data on: 1) all interruptions; and 2) all interruptions excluding loss of supply' for a) the distribution system average interruption frequency index; b) system average interruption duration index; and c) customer average interruption duration index.

Where performance assessments indicate marked adverse deviations from trend or targets (including any established in a previously filed DSP), provide a brief explanation and refer to these instances individually when responding to provision 'c)' below.

As is introduced in Section 5.2.3.1, among the set of performance measures **E.L.K.** uses to continuously monitor and evaluate its achievement are the four performance outcomes established by the OEB, collectively known as (**Scorecard**). Most of these measurements are required by the OEB for the DSP filing, but some are not. These measures provide a means for **E.L.K.** to compare its performance with other **LDC's** in Ontario. Five of the performance measures reported in this scorecard, including First Contact Resolution, Billing Accuracy, Customer Satisfaction Survey Results, Public Safety, and **DSP** Implementation Progress, were added by the OEB in May 2014 to capture performance in value to customers, effective planning, and asset management. **E.L.K.** does not keep historical records for these performance measures as they were not tracked prior to 2014.

In addition to the **OEB** scorecard, the Filing Requirements require metrics on:

Customer Focus:

Customer Bill Impacts;

- Percentage Average Total Bill Impact,
- Average Dollar Impact

Power Quality;

- Power Quality and Electrical Disturbances

As illustrated in the **OEB** scorecard, **E.L.K.**'s customer service quality in the historical period has been consistently beyond the industry target.

The 2015 OEB scorecard, provided below, summarizes **E.L.K.**'s historical performance from 2011 to 2015.

Scorecard - E.L.K. Energy Inc. 9/29/2016

Performance Outcomes	Performance Categories	Measures		2011	2012	2013	2014	2015	Trend	Target Industry	Target Distributor
Customer Focus Services are provided in a manner that responds to identified customer preferences.	Service Quality	New Residential/Small Business Services Connected on Time		100.00%	96.80%	94.40%	92.90%	94.90%	down	90.00%	
		Scheduled Appointments Met On Time		96.60%	100.00%	96.20%	100.00%	100.00%	up	90.00%	
		Telephone Calls Answered On Time		96.40%	97.00%	97.40%	97.00%	97.50%	up	65.00%	
	Customer Satisfaction	First Contact Resolution					98%+	Excellent			
		Billing Accuracy					99.97%	99.99%	up	98.00%	
		Customer Satisfaction Survey Results					Excellent	Excellent			
Operational Effectiveness Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	Safety	Level of Public Awareness						78.00%			
		Level of Compliance with Ontario Regulation 22/04 [1]		C	C	C	C	C	flat		C
		Serious Electrical Incident Index	Number of General Public Incidents	0	0	0	0	0	flat		0
			Rate per 10, 100, 1000 km of line	0.000	0.000	0.000	0.000	0.000	flat		0.000
	System Reliability	Average Number of Hours that Power to a Customer is Interrupted [2]		0.80	1.22	1.05	1.12	0.61	down		1.40
		Average Number of Times that Power to a Customer is Interrupted [2]		0.41	0.34	0.44	0.50	0.21	down		0.53
	Asset Management	Distribution System Plan Implementation Progress					In Progress	In Progress			
	Cost Control	Efficiency Assessment			1	1	1	1			
		Total Cost per Customer [3]		$418	$421	$401	$367	$428			
		Total Cost per Km of Line [3]		$31,417	$31,524	$29,697	$29,012	$31,877			
Public Policy Responsiveness Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	Conservation & Demand Management	Net Cumulative Energy Savings [4]						10.26%			16.20 GWh
	Connection of Renewable Generation	Renewable Generation Connection Impact Assessments Completed On Time			100.00%	100.00%	100.00%				
		New Micro-embedded Generation Facilities Connected On Time				100.00%	100.00%	100.00%	flat	90.00%	
Financial Performance Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios	Liquidity: Current Ratio (Current Assets/Current Liabilities)		3.45	3.94	3.10	2.55	2.07			
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio		1.55	1.01	1.03	0.81	0.63			
		Profitability: Regulatory Return on Equity	Deemed (included in rates)	9.00%	9.00%	9.12%	9.12%	9.12%			
			Achieved	4.07%	11.90%	9.20%	19.22%	10.72%			

1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).
2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the fixed 5-year (2010 to 2014) average distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.
3. A benchmarking analysis determines the total cost figures from the distributor's reported information.
4. The CDM measure is based on the new 2015-2020 Conservation First Framework. This measure is under review and subject to change in the future.

Legend: 5-year trend: up, down, flat. Current year: target met, target not met

I Summary of Customer Focus Metrics

Metric	OEB Approved Standard	2010	2011	2012	2013	2014	2015
Scheduled appointments met on time	>=90%	100%	96.6%	100%	96.2%	100%	100%
Telephone calls answered on time	>=65%	95.8%	96.4&	97%	97.4%	97.5%	97.5%
New residential/small business services connected on time	>=90%	98.3%	100%	96.8%	94.4%	92.9%	94.9%

E.L.K.'s customer service quality in the historical period has been consistently beyond the industry target as identified above in the table above.

Customer Satisfaction

Performance metrics were added by the OEB in 2014 to monitor First Contact Resolution, and Billing Accuracy.

E.L.K. continues to develop this measure as no firm methodology has been presented. Per **E.L.K.**'s 2014 scorecard, **E.L.K.** conducted a customer satisfaction survey online which resulted in an overall positive customer experience. **E.L.K.** also conducted a 2015 survey for **E.L.K.**'s COS and produced very positive results. The number of customer issues that required escalation after the first contact were minimal. Success rate of resolving the customer issue is over 98%.

In 2015, **E.L.K.** issued approximately 140,000 electricity bills and achieved a billing accuracy of 99.99%. This compares favorably to the prescribed OEB target of 98%.

Customer Bill Impacts

As previously mentioned:

Further information pertaining to the causes of these bill impacts can be found in Exhibit 8.

In preparing this application, **E.L.K.** has considered the impacts on its customers, with a goal of minimizing those impacts. Table 1 1 in Exhibit 1 provides a summary of total bill impacts ($ and %) for typical customers in all rate classes. These impacts reflect E.L.K's proposal for a two year disposition period for the RSVA – Global Adjustment amount. This rate mitigation strategy allows all classes to have a total bill impact of less than 10%.

Table 1-1: Total Bill Impacts

Rate Class	Monthly kWH	Monthly kW	$ Change	% Change
Residential	750		$7.93	5.9%
General Service < 50 kW	2,000		$24.72	7.2%
General Service > 50 kW	55,000	170	$801.91	8.2%
Street Lights	70	0.2	$0.28	2.0%
Sentinel Lights	70	0.2	$1.30	9.9%
Unmetered Scattered Load	700		$7.73	6.4%
Embedded Distributor	1,000,000	2,000	($4,775.54)	(2.9%)

Incorporated in the overall monthly bill impact is the effect of the following major components of the electricity bill:

- Distribution rates (monthly service charge and volumetric rates);
- Disposition of deferral and variance accounts:
- Revised Retail Transmission rates;
- Wholesale Market Service rates; and

- Loss Factors.

Power Quality

As referenced in section 5.2.3.1, **E.L.K.**'s limits on voltage distortion are 3% for individual voltage harmonic distortion and 5% for total harmonic distortion. For any reported situation where a system delivery issue is deemed to be the cause, **E.L.K.** acts to mitigate the issue.

Further, and as discussed above, due to immediate resolution of power quality concerns, historical data has not typically been kept outside of a list of occurrences. **E.L.K.** maintains a record of all work order forms for reported power quality issues. In the future, **E.L.K.**'s intends to aggregate the number of power quality issues experienced per year and include this as a metric.

II. Summary of Operational Effectiveness Metrics

Safety

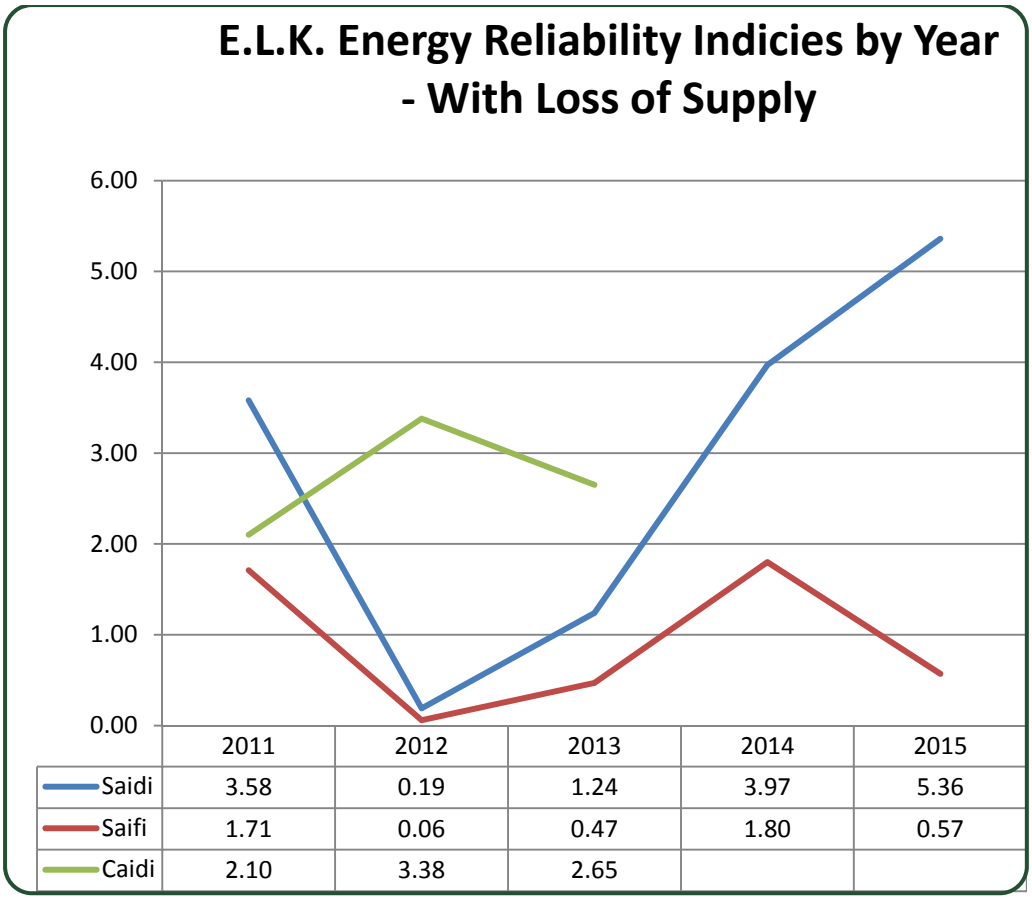
In Section 13 of O. Reg. 22/04, ESA mandates all distributors to engage an auditor to audit on an annual basis the distributor's compliance with Sections 4, 5, 6, 7 and 8 of the regulation and prepare an audit report for ESA's review. ESA audits of **E.L.K.** from 2011 to 2015 were conducted by qualified auditors from QUASAR, results of which are provided in a table below. **E.L.K.** received a total of two needs-improvement ("NI") designation in these audits, for the following reasons:

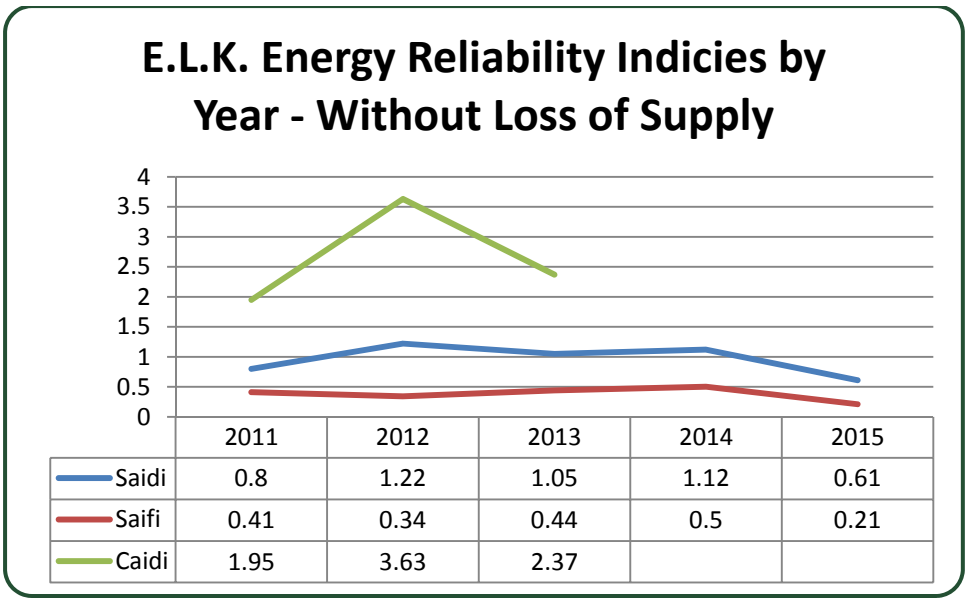
- One NI in 2011: "Need to ensure documentation of transformers received and inspected is recorded."
- One NI in 2012: "Documentation of new wire data sheet was not available at the time of the audit.

Year	Safety Standards				Electrical Equipment				Plans, drawings and specifications for installation of work.				Inspection and Approval of Construction			
	C	NI	NC	N/A	C	NI	NC	N/A	C	NI	NC	N/A	C	NI	NC	N/A
2011	3			1	1	1			3			5	5			5
2012	3			1	1	1			3			5	5			5
2013	2			2	2				2			6	5			5
2014	2			2	2				2			6	5			5
2015	2			2	2				2			6	5			5

System Reliability

The graphs below summarize **E.L.K.**'s reliability performance in the historical period, measured by SAIDI, SAIFI, CAIDI including and excluding loss of supply.



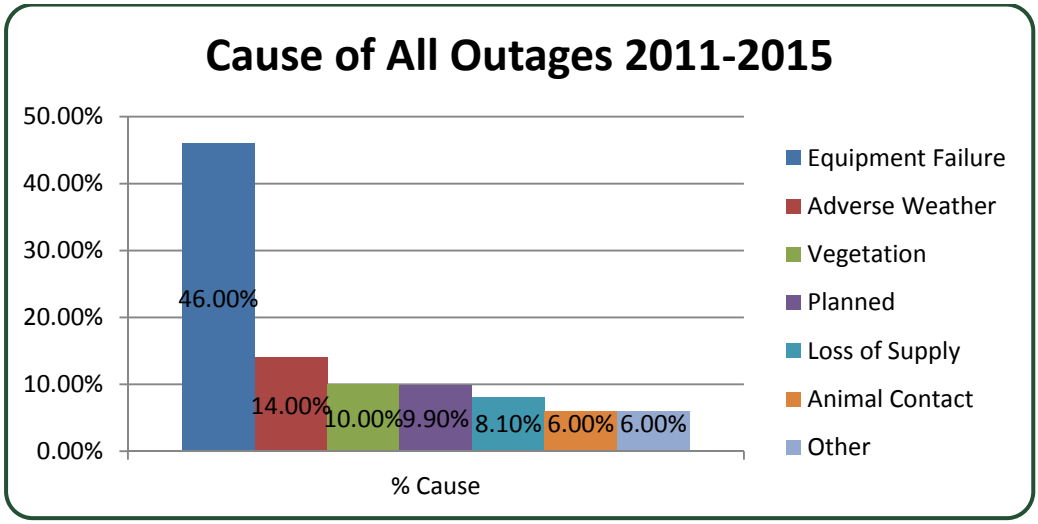


E.L.K.'s system reliability statistics for both SAIDI and SAIFI fell below our distributor target of 0.80-2.82 and 0.34-0.95 respectively.

In addition to employing key reliability indicators to monitor its overall system reliability level, **E.L.K.** also tracks outage statistics including root causes on a regular basis. This data is

collected through trouble reports. Together with key reliability indicators, these statistics provide valuable insight to the root causes for system outages and enable **E.L.K.** to target specific areas in an effort to lower outage frequency and reduce lengths of outages.

A summary of the causes of outages within **E.L.K.**'s system is presented in the graph below along with the percentage of overall outage incidents attributable to each cause type. These Figures provide as follows:



Equipment failure, adverse weather, vegetation and planned outage causes have been identified to be the four most common causes for outages on **E.L.K.**'s distribution system in the last few years. Together, these causes contributed to 79.9% of the total number of outages from 2011 to 2015, including momentary and sustained outages.

Scheduled outages are customer interruptions due to the disconnection at a selected time for the purpose of construction or preventive maintenance. Outages caused by defective equipment are customer interruptions resulting from distributor equipment failures due to deterioration from age, incorrect maintenance, or imminent failures detected by maintenance. Animal contact includes factors beyond the control of **E.L.K.** such as animals making contact with the distribution system. Vegetation interruptions are outages contributed to the incidental contact with vegetation.

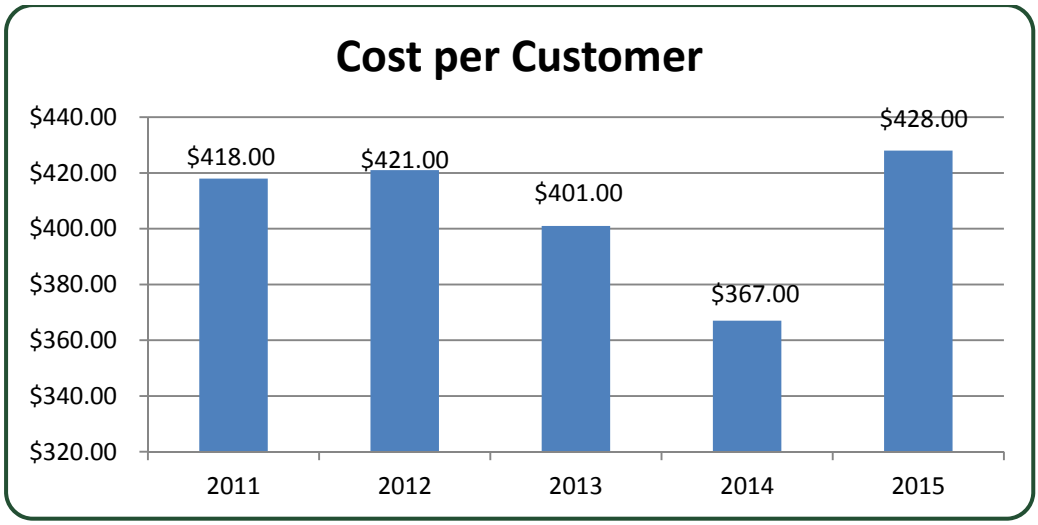
Asset Management

Performance metrics added by the OEB in 2014 include monitoring the cost efficiency and effectiveness with respect to planning quality and DSP implementation. **E.L.K.** has not historically tracked these metrics and will be developing processes to monitor and report in these areas going forward.

Cost Control

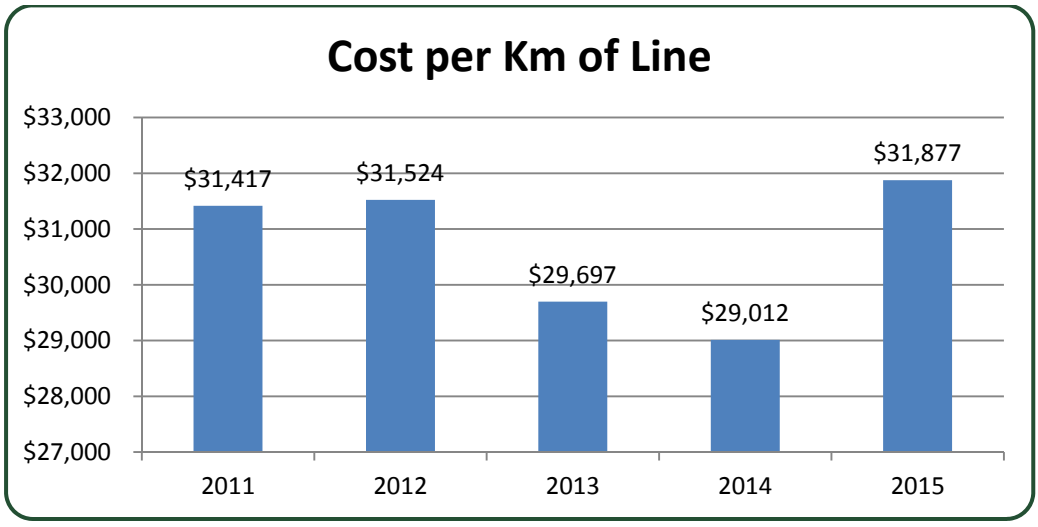
Total Cost per Customer

The graph below summarizes **E.L.K.**'s historical performance measured by the total cost per customer.



Total Cost per Km of Line

The graph below summarizes **E.L.K.**'s historical performance measured by total cost per km of line.



III. Summary of Public Policy Responsiveness Metrics

Conservation and Demand Management

In 2011- 2014, **E.L.K.** contracted with the **IESO** to deliver a portfolio of **IESO**-contracted province-wide COM programs ("**IESO Programs**") to all customer segments including residential, commercial, institutional, and low income. Most of these programs were rolled-out by the **IESO** in June 2011. In 2011 program activities were centered on building a foundation for full program execution over the next three years of the program term, including staffing, procurement, and program delivery.

E.L.K. focused on many of the conservation programs, concentrating on the small business lighting program, ERII, the Peaksaver Plus and low Income Program.

Since 2006, through two previous generations of COM programming, **E.L.K.** has demonstrated a strong commitment to serving its customers. For 2011·2014 **E.L.K.** was allocated 4-year targets of 2.7MW of Peak Demand Savings and 8.3 GWh of Net Cumulative Energy Savings.

Over the course of 2014, **E.L.K.** achieved an incremental O MW in peak demand savings and 8.0 GWh in energy savings, which represents 37.8% and 96.9% of E.L.K.'s 2014 target, respectively.

These results are representative of a considerable effort expended by E.L.K., in cooperation with customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 COM program term will aid results in future COM programs.

Future reports on Conservation will be provided by E.L.K. to the **IESO** who will report annually to the OEB.

Customers are very interested in conservation and **E.L.K.** has had a significant response from small and large business as well as from residential customers. E.L.K. has taken conservation planning and promotion to the next level.

In 2015, E.L.K. contracted Greensaver to assist in delivering all aspects of conservation delivery. Further, in 2016, E.L.K. has undertaken the sharing of a Roving Energy Manager (REM) which will be instrumental in assisting E.L.K. meet its COM goals and objectives. Under the REM program, a mutually beneficial relationship is created whereby the needs and wants of the utilities larger customers are satisfied through COM offerings, while the REM becomes a significant resource of knowledge to the utility. GreenSaver is Ontario's leading not-for-profit energy efficiency organization. For more than 25 years, they have delivered energy conservation programs for government, agencies and utilities, assisting homeowners and businesses across Ontario to reduce their energy and environmental footprint. They are currently representing 51 utilities.

IV. Financial Performance

Financial Ratios

E.L.K.'s financial performance in historical period, including the Current Ratio, Total Debt to Equity Ratio and Achieved Regulated Return on Equity is provided is provided in Exhibit 1 Appendix 1B.

5.2.3.3 Effect on the DSP (OEB Filing Req. 5.2.3c)

c) Explain how this information has affected the DSP (e.g. objectives; investment priorities; expected outcomes) and has been used to continuously improve the asset management and capital expenditure planning process.

Customer Focus Improvement Projects

Service Quality

E.L.K. has consistently exceeded the OEB's Service Quality Indicator standards, and as set out in Exhibit 2, it is targeting to maintain its performance at levels at or above the OEB standards for 2016 and 2017. **E.L.K.** is continuously growing at a reasonable rate of approximately 1-2% yearly. **E.L.K.**'s dedicated maintenance programs includes tree trimming resulting in few outages that would have otherwise occurred during significant storm events. Responding to increased customer demand for up-to the minute information, **E.L.K.** is planning a more extensive use of social media applications. In 2015 and 2016, **E.L.K.** continued to improve the manner in which service quality was improved, and details of the outreach are provided in Table 1-16 in Exhibit 1. In the future, **E.L.K.** will continue to take into consideration service quality and customer requests into the DSP planning process.

Customer Satisfaction

New Metrics introduced in 2014 for "First Contact Resolution" and "Billing Accuracy" will be developed and tracked over this planning cycle. In the future, **E.L.K.** plans to use this information in developing its DSP in order to identify cost effective investments in customer service focused projects and products.

Customer Bill Impacts

This information is not a stand-alone metric. While customer bill impacts are important, customer feedback into other metrics and needs are also critical.

The nature of customer input is there is some reluctance in accepting certain increases to bills in order to successfully see their energy needs met. Customers have also historically been interested in a well-functioning LDC providing their energy and this is taken into account when considering bill impacts. As much as **E.L.K.** would like to provide the lowest rates to its customers it also needs to provide and continue to provide top level service and power quality.

In the future, **E.L.K.** will continue to pursue various avenues to incorporate customer bill impacts into its distribution system planning process.

Power Quality

E.L.K. will continue to monitor complaints from customers for Power Quality issues and act to ensure the customer's needs are addressed wherever possible. **E.L.K.**'s limits on voltage distortion are 3% for individual voltage harmonic distortion and 5% for total harmonic distortion. **E.L.K.** targets zero on-going power quality issues.

Operational Effectiveness Improvement Projects

Safety

A minor needs improvement under O. Reg. 22/04 was rectified by improvement in the material receipt records processes. As is evidenced in the Scorecard results other safety metrics are meeting or exceeding target and are not driving capital expenditures in this planning cycle.

Where other works are underway, safety improvements are included in the projects. **E.L.K.** targets to achieve full compliance of O. Reg. 22/04, meaning zero "Non-compliance" and "Needs improvement" in future ESA audits.

System Reliability

Underground cables and live front transformers at or near **TUL** are causing a significant number of outages and will become a cause of long outage events. Having recognized this, **E.L.K.** has included plans in this DSP to proactively replace underground cables to minimize outages related to cable failures.

Asset Management

In 2014, new requirements for reporting were introduced in the area of monitoring cost efficiency and effectiveness with respect to planning quality and DSP implementation. **E.L.K.**'s target is to achieve and maintain high ranking among its peers in this reporting area. New metrics will include:

- Physical project progress vs plan;
- Financial project progress vs. plan; and
- Actual vs. planned cost of work completed.
- Asset management metrics are evolving and still in development. In the meantime, **E.L.K.** is continuing to maintain asset health through renewal programs and maintenance. There are no high profile changes to the AM process. Improvements in data collection and asset condition data management continue to close gaps.

Cost Control

E.L.K. has been working diligently to improve its performances, to reduce the costs, and to be more efficient.

Public Policy Responsiveness

Conservation and Demand Management

E.L.K. will continue to support conservation programs such as "saveONenergy" and other initiatives aimed at reducing consumption.

Since 2006, through two previous generations of CDM programming, **E.L.K.** has demonstrated a strong commitment to serving its customers.

In 2011 – 2014, **E.L.K.** contracted with the **IESO** to deliver a portfolio of **IESO** contracted province wide CDM programs ("**IESO** Programs") to all customer segments including residential, commercial, institutional, and low income. Most of these programs were rolled out by the **IESO** in June 2011. In 2011 program activities were centered on building a foundation for full program execution over the next three years of the program term, including staffing, procurement, and program delivery. **E.L.K.** continues its CDM outreach through the continued delivery of CDM programs for the 2015-2020 suite of programs.

Financial Performance

Financial Ratios

The company expects to continue to monitor its financial performance including its current ratio, along with other key financial metrics.

5.3 ASSET MANAGEMENT PROCESS

Main Drivers of Asset Management Plan

This DS Plan, developed through an asset management approach, reflects **E.L.K.**'s strategic commitment to customer service excellence, net investment in distribution infrastructure and optimization, consistent and financial performance and employee and public safety. During the planning process, a Business Risk Management framework was deployed to identify residual operational risks relative to current performance outcomes. Some of the factors in consideration during the planning process include service reliability, safety, obsolescence, operational and environment considerations.

The table below summarizes the overall asset planning approach.

E.L.K.'s DS Planning Drivers	
Corporate Planning	• Vision, Mission, Values and Objectives • Strategic directives • Business risks
System Performance	• Utilization • Demand forecasts and load • Reliability • Failure trends • Condition assessments • Age profiles • Safety
Operational Environment	• System risk profile • Technology trends • Compliance Requirements • Customer needs

Distribution planning is not a static process; as circumstances affecting **E.L.K.** assets change (e.g. standards, knowledge), there are likely to be changes in projects and programs, and changes to the level of expenditures.

Customer requirements are reflected in the setting of performance targets, such as response times for outages and notification times for planned outages. Customer expectations are gathered via surveys and routine customer contact. **E.L.K.** is aware of what customers prefer through their engagement in a comprehensive customer survey. A top priority for customers is better reliability and enhanced communications.

General load growth over time brings about a need to invest in additional network capacity. Given the current and forecasted load growth over the five year planning horizon **E.L.K.**

expects that its electrical infrastructure will continue to be able to accommodate this load growth. However, there is always the possibility of large developments, which may trigger upgrades to existing equipment or expansions to the distribution system.

Regulatory Requirements and obligations are imposed by the government, and by the regulatory agencies that execute the government's direction. In addition to this, **E.L.K.**'s stakeholders expect the expression of good corporate ethics. The attainment of environmental benefits and energy conservation are important considerations of **E.L.K.**'s policies and procedures. In May 2009, the Ontario Legislature passed Bill 150, the Green Energy and Green Economy Act, 2009. This legislation is a framework, aimed at making fundamental changes to the roles and responsibilities of local distribution companies (LDCs). This Act led to a number of supporting regulations required to implement the Act. **E.L.K.** intends to support embedded generation and smart grid implementation.

The current age and **asset condition** profile has a major influence on **E.L.K.**'s future asset management plans. Where possible, asset investment decisions will take into account the performance of assets and the expected condition and performance profile under different investment scenarios. **E.L.K.** is currently utilizing the information mapped in the asset data bases to assist in its asset replacement programs, in conjunction with inspection and testing records.

System Risk Profile, as reflected in asset management planning includes operational risks, natural environmental events, regulatory and legal risks, and risks associated with the different lifecycle stages of an asset.

Safety has always been a priority at **E.L.K.** and is essential to good utility practice. The Electrical Safety Authority oversees public safety issues through Regulation 22/04 annual audits and inspection programs.

Continuous improvement is a key part of asset management; this includes **new technologies**, tools or methods that have a potential benefit to the company as they continually become available. A longer-term **E.L.K.** objective is to build more automation and system intelligence.

The drivers noted above provide the context for asset management at **E.L.K.** Managing the balance between drivers is incorporated into **E.L.K.**'s overall DSP. The main drivers of **E.L.K.**'s DS Plan also align with OEB expectations to meet the four performance outcomes.

MANAGING STAKEHOLDER INTERESTS

IDENTIFYING STAKEHOLDERS

E.L.K. is governed by a Board of Directors, and has one shareholder, The Town of Essex. Other stakeholders include:

- Electricity retailers, customers, and end consumers
- Contractors and service providers
- **Hydro One** - Distribution and Transmission Supplier
- Tree owners

- Government agencies such as the OEB & **IESO**
- Land owners where **E.L.K.** assets exist
- Town of Essex (operational perspective)

E.L.K. has contact with all of its stakeholders. Their suggestions provide opportunities for **E.L.K.** to conduct its business, and provide perspective about rates and service levels.

ACCOMMODATING STAKE HOLDER INTERESTS

Stakeholder interests can be viewed from a number of perspectives including Customer Focus, Operational Effectiveness, Public Policy Responsiveness, and Financial Performance. Financial stability is required to ensure that shareholders and lending institutions have sufficient confidence to continue owning and investing in **E.L.K.** Electricity rates provide the means for **E.L.K.** to create revenue and signal underlying costs. Not charging appropriate rates has economic implications for both **E.L.K.** and its customers. The Quality of Supply includes emphasis on reliability with respect to the number of interruptions, the duration of interruptions, the amount of flicker, and the quality of supply. Safety involves staff, contractors, customers, and the public. **E.L.K.** must ensure the operation of the distribution system is safe for all.

E.L.K. accommodates stakeholder interests as follows:

Interest	How E.L.K. accommodates stakeholder interests
Customer Focus *(Service Quality and Customer Satisfaction)*	E.L.K. conducted a customer survey to determine customer preferences and customers indicated that they expect their utility to provide consistent, reliable energy, handle outages and restore power quickly. Customers also want improvement in communications. To address customer preferences, E.L.K. will continue to effectively maintain its infrastructure with funds available and invest in customer communications.
Financial Performance	E.L.K. will accommodate stakeholders' needs for long-term viability. E.L.K.'s revenue is constrained by regulatory requirements, conservation and demand management activities, and the state of the economy. Failure to collect enough revenue to fund reliable assets will impact customers in a negative way. Conversely, collecting too much revenue penalizes customers and transfers a disproportionate proportion of wealth to the shareholder. E.L.K.'s pricing strategy must be cost-effective and, at the same time, be sufficient to continue to balance distribution system security, capacity, reliability, and return on investment.
Operational Effectiveness	E.L.K. will maintain a reliable system, and will implement this DSP in an effective manner to benefit the interests of all stakeholders. E.L.K. will ensure that the public is kept safe by ensuring all assets are structurally sound, live conductors are maintained with at least minimum clearances, enclosures are kept locked, and touch & step potentials are kept within standard. E.L.K. will ensure the safety of its staff by implementing and continuously improving its safety management program.
Public Policy	E.L.K. will continue to deliver on obligations mandated by the government. E.L.K. intends to continue accommodating generation and smart grid development.

MANAGING CONFLICTING INTERESTS

Conflicting interests will be managed as follows:

- Safety must be 1st Priority - Safety of staff, contractors, and the public will always be the highest priority even if this means exceeding budgets or risking non- compliance.
- All other interests must be managed as the situation dictates and will out of necessity be a balance of some proportion (not necessarily equal proportions) between the interests:
- Financial Stability – **E.L.K.** Energy must be financially viable or it will not exist to manage other conflicts.
- Quality of Supply – Customers want value and are willing to pay for a certain level of quality.
- Electricity Rates – Rates reflect an appropriate balance between revenues and expenditures.
- Compliance – Other than safety.

5.3.1 Asset Management Process Overview

One of **E.L.K.**'s primary goals is to make consistently sound decisions while carrying out the appropriate tasks at the right time and at the optimum level of expenditure. **E.L.K.**'s Business objective aims to maximize the rate of return on rate base while ensuring enough cash flow to sustain capital investments & OM&A. This goal is achieved by adhering to the following asset management objectives:

- **Public Safety** – Minimize impacts to public safety through the consideration of the physical and geographical aspects of the project area and the assets involved.
- **Employee Safety** – Minimize impacts to employee safety through the consideration of geographical congestion, the proximity to energized equipment, the safety levels of equipment design and the complexity of the physical arrangement of assets in the project.
- **Environmental** – Minimize impacts to sensitive environmental features through the consideration of the equipment types in the project area, potential contaminants released during asset failure, and proximity to sensitive environmental areas and waterways.
- **Reliability and Power Quality** – Minimize impacts to reliability and power quality through the analysis of the number, duration and cause of events responsible for power interruptions and maximize opportunities to reduce or eliminate future issues through design and construction practices.
- **Operational Efficiency** – Minimize factors that negatively affect operational efficiency through the consideration of equipment types and the analysis of increased operational effort in the project area due to system constraints.
- **Value for Ratepayers** – Optimize asset lifecycle costs and replacement decisions to minimize the overall cost to ratepayers while maximizing benefits. Designs should consider future upgrade or technology requirements and be constructed in a way that minimizes the future costs associated with changes in the project area. Value for Ratepayers is considered during the selection process, rather than the prioritization

process and all designs are formulated with Value for Ratepayers in mind. For discretionary projects, only those projects which present good value for the ratepayers will be selected.

Each of the asset management objectives described above – except for "Value for Ratepayers", which is a function of project design and ultimate project selection are utilized for project selection and prioritized as shown in the Table below.

Objectives	Corporate Core Value
Public Safety	Safety, Relationships
Employee Safety	Caring, Relationships
Environmental	Environmental Stewardship
Reliability and Power Reliability	Relationships
Operational Efficiency	Efficiency, Innovation and Leadership

As circumstances affecting assets change, the expenditure interventions required in a given year are likely to change. However, the goal of this plan is to establish direction for investment decisions and outline the long -term strategy for managing the assets under **E.L.K.**'s ownership. This DSP covers projects for the next five years, during which time, forecasts of asset management drivers can be refined with a reasonable degree of accuracy. **E.L.K.**'s intention is to maintain enough cash flow to sustain capital investments and OM&A.

E.L.K. is using the Scorecard reporting mechanisms incorporated into the Asset Management Process to monitor progress in meeting the performance outcomes set by the Board. **E.L.K.** seeks to achieve an optimal balance between the key elements of asset management, service levels, costs and business risk. This will enable the utility to provide economically sound business opportunities for its shareholders and operate with a view to profitability and maximizing shareholder value, while maintaining commitment to system reliability, customer satisfaction, business ethics and standards. The key goals of the asset management process are to:

- Balance cost, performance, and risk;
- Align organizational objectives with investment decisions; and
- Create a multi-year asset plan based on rigorous and data-driven processes.

Information about **E.L.K.**'s asset attributes and condition data are held within databases, various paper records and files. Asset conditions are assessed by various inspection and maintenance activities. These activities are analyzed to determine what appropriate maintenance intervals best suit the asset. Detailed attribute condition information is continually being improved, and with time, the confidence level of this information will be enhanced.

The following Processes are the core Asset Management Processes at **E.L.K.**:

- Inspection and maintenance processes;
- Capital expenditure planning processes;
- Capital financing processes; and

- Information management processes

5.3.1.2 Components of the Asset Management Process

I. Key Considerations

i. Asset Considerations

For distribution assets, considerations are primarily driven by the TUL. While the asset's age alone may not necessarily correlate to its condition, the collection and analysis of various asset data can be used for long-term planning estimates. Areas of specific concern, such as termite concentrations for wood poles, design standard changes and obsolescence must also be considered in short and long-term planning.

ii. System considerations

System considerations for asset replacement include reliability, efficiency, and customer and public safety. Asset upgrades may also be driven by future load growth. Future expansion and connections due to increasing load, expanding territory and distributed generation can drive asset upgrades, capital construction and new asset integration.

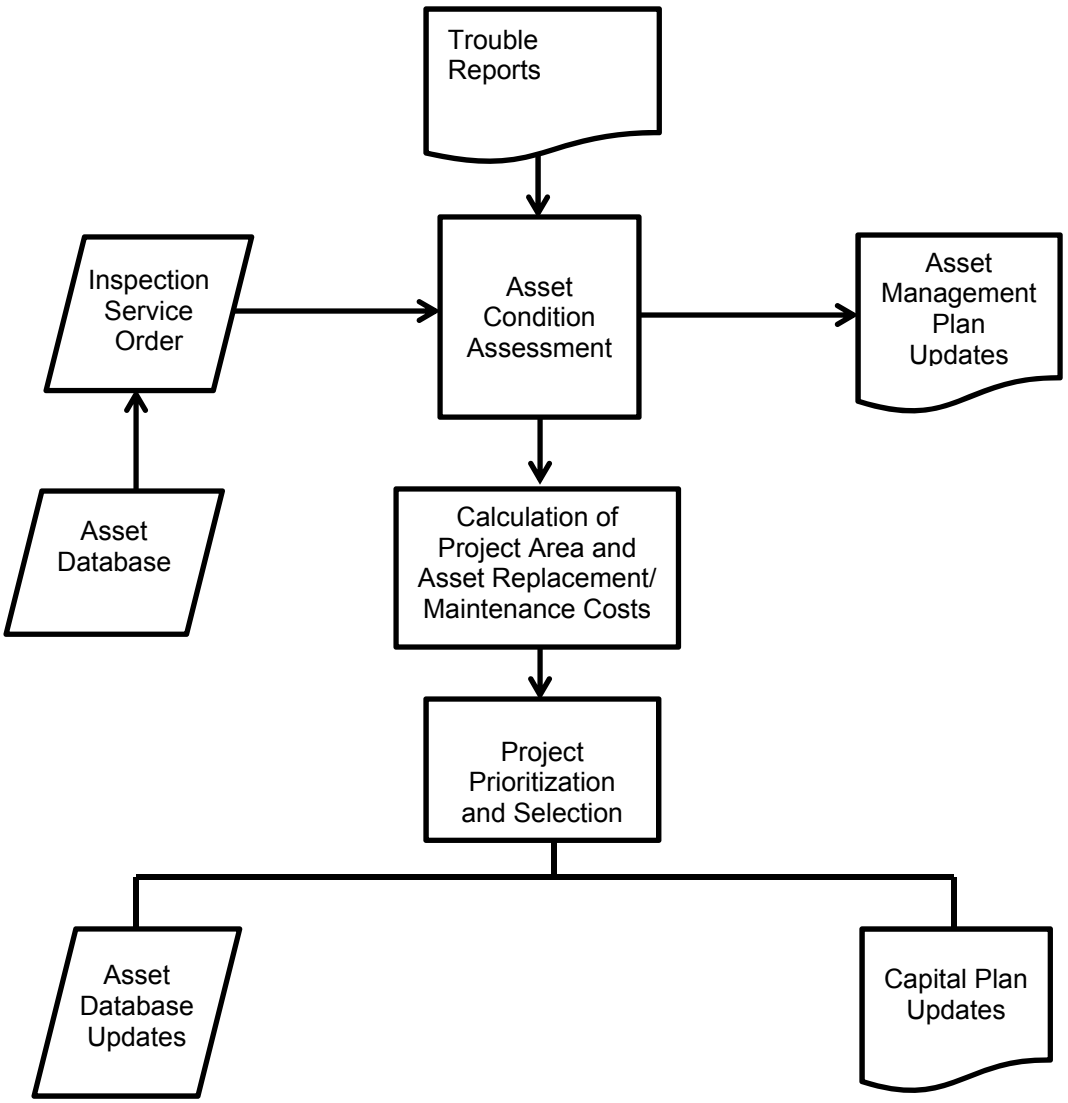
iii. Personnel Considerations

The safety of personnel working on or around energized and non-energized assets must be considered during investment planning. Furthermore, human resource constraints may impact the ability to manage and complete programs.

iv. Budgetary Considerations

A comparison of the value of an asset and anticipated maintenance costs can determine the optimal replacement time for an asset. Generally, as the asset ages, maintenance and risk costs increase while the asset capital cost per year decreases. Adding the two curves yields the total annual asset cost. The optimal replacement point for an asset occurs approximately as annual asset cost reaches its minimum.
While the above concept identifies the optimal point from an economics perspective, budgetary constraints and logistics may limit the ability to complete asset replacement on an optimal basis. Maintenance costs and cost of replacement must be weighed according to the available budget and potential risks.

The **AM** strategy utilized by **E.L.K.** is described in the flowchart below (the "**Asset Management Strategy**"). The flowchart depicts the processes utilized in **E.L.K.'s** Asset Management Strategy, the inputs to each process and the output documents and databases generated by the processes. Arrows show the flow of the process and the interconnections between the various processes, inputs and outputs. The process begins with the collection of asset data, followed by the asset assessment processes, which are, in turn, followed by the selection and prioritization processes, culminating in the asset management plan, capital plan and asset database updates.


Trouble Reports
Inspection Service Order
Asset Condition Assessment
Asset Management Plan Updates
Asset Database
Calculation of Project Area and Asset Replacement/ Maintenance Costs
Project Prioritization and Selection
Asset Database Updates
Capital Plan Updates

II. Data Sets

i. Asset Database

Data regarding assets is stored in tables within **E.L.K.'s** asset database according to their type (i.e. poles, transformers, etc.). The tables contain relevant information that allows each asset to be uniquely identified, such as unique location numbers, addresses, physical location, and local (serial) numbers. The tables may also contain descriptive information of the asset, such as capacity, age, type, manufacturer and configuration. The Asset Database is updated as assets are installed, removed and refurbished and to include updated information from other processes described herein.

ii. Meter Data

Metered customer consumption data is stored in **E.L.K.'s** Customer Information System ("**CIS**") and Operational Data Store ("**ODS**") for smart metered customer accounts.

iii. Inspection Data

All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address.

iv. Health Index and Probability of Failure Database

E.L.K. currently does not have a Health Index and Probability of Failure Database but intends to develop this during the term of this plan. Additional detail can be found in 5.3.2.C under Asset Condition Assesment. The data sets will be organized by asset category and the health indices and probabilities of failure are the results of calculations based on the various condition criteria as well as information returned from asset inspections. This data will be used in the project prioritization process when calculating the overall risk score for each project.

v. Failure Consequence Database

Projects will be assessed to determine the consequence of a component failure, and the subsequent repair efforts, in terms of impacts to safety (both public and worker), reliability, environmental damage and operational efficiency. The resulting Failure Consequence Database will be used in the project prioritization process when calculating the overall risk score for each project area.

vi. Project Area Risk Value Database

Composite probability of failure values and composite consequence of failure values are multiplied together to determine an overall risk value for each project. These values are stored in the Project Area Risk Value Database and are used in the project prioritization process.

III. Processes

i. Asset Inspections

Inputs:

• **Asset Database** – provides listing of assets requiring inspection and asset locations to aid inspection crews.

• **Inspection Forms** – inspection forms are by paper.

Process Description:

All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address. This process is expected to be more formalized as the USF Asset Management Working Group continues to develop the data base. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address.

Outputs:

• **Inspection Data** – The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address.

ii. Asset Condition Assessment

Inputs:

• **Inspection Forms** – provides results for the various condition criteria

• **Asset Database** – provides asset characteristics

Process Description:

At present **E.L.K.** does not have a formal asset condition assessment. All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address. This process is expected to be more formalized as the USF Asset Management Working Group continues to develop the data base.

Outputs:

• **Asset Condition Report** – the report will include the expected asset replacement frequency, levelized replacement schedules, history of asset condition by category and identifies data gaps to aid the continual improvement of the **AM** process.

• **Health Index and Probability of Failure Database** – data is returned

iii. Reliability Risk/Consequence of Failure Analyses

Inputs:

• **Health Index and Probability of Failure Database** – Per asset health index and probability of failure information will be used to determine composite indices and assess overall project risk.

Process Description:

The Reliability Risk and Consequence of Failure Analyses are the processes of determining a risk value for various projects in **E.L.K.'s** service territory. These projects will be assessed for risk to reliability and consequence of failure. The risk to reliability is determined by a weighted assessment of the criticality of various components in the system and their ability to affect different types of reliability impacts on failure. A composite health index for each project will be determined based on individual asset health indices and their criticality. Finally, each project is assigned a risk score based on the composite probability of failure values and the consequence score for each project. The modelling is performed and stored in the Project Area Risk Value Database.

Outputs:

Project Risk Value Database – risk values are determined on a per project basis from consequence and probability of failure data. The risk values are tabulated in a database which is used to prioritize projects.

iv. Calculation of Project and Asset Replacement/Maintenance Costs

Inputs:

• Asset Database – the number and type of assets contained in a project are used to determine potential replacement costs.

• Historic Costs – Approximately 2-4 years of historical actual costs may be used where needed to assist in the prediction replacement and maintenance costs for specific assets or project.

Process Description:

Each defined project is assessed for the cost of total replacement of the assets it contains. The estimation of replacement costs is based on known counts and types of assets contained in each project area combined with generic estimates to replace each asset type. The estimates for the replacement of each asset type are updated on an annual basis to capture the change in costs related to year-over-year inflation, material changes, operational practice changes and other considerations. Additionally, historical costing is utilized for overly complex projects where a generic order of magnitude costing would not be sufficient. Finally, the projects are assessed for the level of work required based on the comparison of composite and individual asset probabilities of failure, and the combination of composite and individual asset health indices.

This process allows the scope of work to be refined to the optimal investment in either replacement or maintenance and for cost estimates to be revised as needed where scope has decreased. The estimated replacement and maintenance costs for each project will be stored in the Project Reconstruction Costs Database (defined below).

Outputs:

• Project Reconstruction Costs Database – costs to reconstruct each project are saved in a database to be used in assessing and prioritizing potential projects and for optimizing the capital expenditure plan.

v. Project Prioritization and Selection

Inputs:

• **Project Reconstruction Costs Database** – The Project Reconstruction Costs Database contains the estimated costs for work required in each project. This is used to aid in project selection by developing cost per risk point data and overall costs for selected work.

• **Project Risk Value Database** – The Project Risk Value Database contains he risk scores determined for each project. This database is used as a factor in project prioritization.

Process Description:

Projects will be prioritized based on a number of criteria such as overall risk values, cost per risk point alleviated, health index versus risk (to identify overall good health areas with high risk points indicating an opportunity to reduce scope and realize risk abatement benefits at lower cost), fulfilment of existing **AM** programs and potential investment efficiency opportunities (i.e. work required in areas that also require capacity upgrading, grouping of adjacent projects to minimize mobilization costs, etc.). The projects are ranked in several lists based on the factors mentioned above (i.e. descending value of risk score, ascending value of construction dollars per risk point, ascending value of composite health index, etc.). Projects are selected from these lists and the selection is optimized based on the levelized replacement schedule requirements determined in the asset assessment and available resource timing. Resources such as available line crews, switching and supply capacity on feeders, contractor availability and materials availability can impact the final selection and scheduling of projects. This optimization process ensures that the optimal numbers of each asset class are replaced to maintain the system health and that system reliability and construction costs are not affected by the use and timing of resources by concurrent projects. The final project selection provides input for capital replacement budgeting and updates to the capital plan, asset management database and asset management plan.

Outputs:

• **Capital Plan Updates** – The capital expenditure plan is updated to include the selected and forecasted projects and estimated costs.

• **Asset Database Updates** – The Asset Database is updated to reflect the planned reconstruction year and to track any replaced or maintained assets.

• **AMP Updates** – The **AMP** is updated to include changes to **AM** Programs and lessons learned through the completion of each **AM** cycle. The **AMP** includes the processes and programs that make up **E.L.K.**'s asset management functions. The updates to this document will inform the next cycle of project selection and investment so that lessons learned and continual improvement can be integrated into **E.L.K.'**s future projects

vi. Asset capacity utilization/constraint assessment

E.L.K. considers asset capacity utilization and constraints in both the failure consequence modelling process described in the previous section and in the design of replacement assets. This includes the consideration of feeder loading levels, area load and supply balance and forecasted loads throughout the service territory. From a mechanical perspective, the class of poles and equipment mounted on them are considered when determining the scope of replacement work and are factored into the replacement cost which is used as part of the project selection process.

vii. Historical period data on customer interruptions caused by equipment failure

Historical period data on customer interruptions, including those caused by equipment failure, are considered during the failure consequence modelling process and the project selection and prioritization process. This involves analyzing the number of interruptions, durations and the number of customers affected in each project area. The impacts to reliability indices such as SAIDI and SAIFI are also considered.

viii. Reliability-based 'worst performing feeder' information and analysis

E.L.K. does not follow a typical 'worst performing feeder' process. Because feeders are dynamic and a section of line can be assigned to one of several feeders at any time due to operational needs, analyzing reliability affecting events from a geographical perspective can offer more useful information. **E.L.K.** analyzes reliability impacting events from a geographical perspective to identify specific worst performing areas and correct reliability and power quality issues in them, as described in Subsection vii above.

5.3.2 Overview of Assets Managed

5.3.2.1 Features Of Distribution Service Area

E.L.K.'s service area covers 22.22 square kilometers, and is comprised of six non-contiguous service areas, serving the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville. The service territory is shown in Appendix A.

The main function of **E.L.K.** is to receive power in bulk from delivery points and distribute it to the local consumers in **E.L.K.**'s service area.

Delivery involves reducing the voltage of bulk power supply to the levels used in end-use electrical equipment. Delivery is achieved via conductors held above or below ground.

E.L.K. Assets include poles, conductors, line transformers, switches, conduits, computer systems and software, transportation equipment and office buildings.

5.3.1.2 Summary Description Of System Configuration

E.L.K. is a local distribution company serving more than 11,700 customers in the Towns of Essex, Lakeshore and Kingsville. Within these towns, which cover a large geographic area in Southwestern Ontario, **E.L.K.** has six non-contiguous service areas, serving the communities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville.

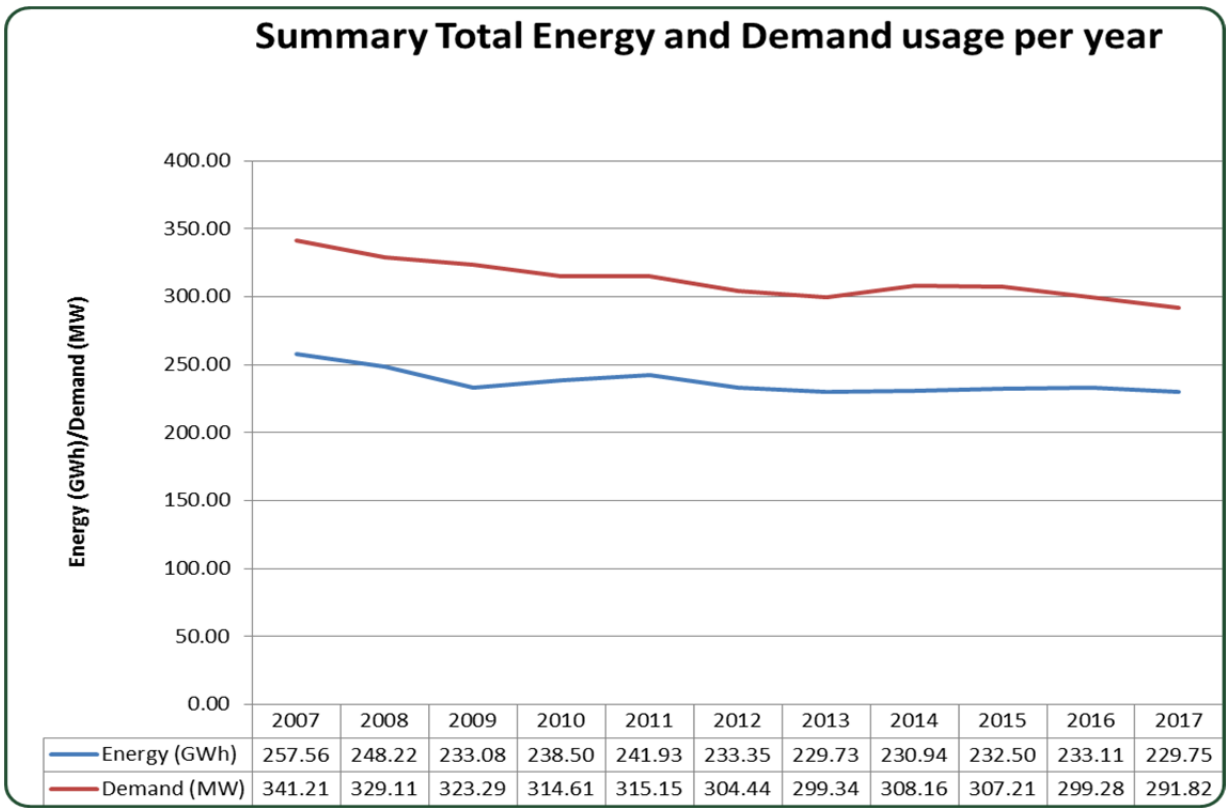
These customers are supplied by four (4) **Hydro One** owned transformer stations. In 2015, **E.L.K.** delivered approximately 120,000,000 kWh of total billed energy.

ENERGY & DEMAND CHARACTERISTICS

E.L.K. has seen a moderate customer growth in the past year and it should be sustained for the next while based upon information from the towns and the planning departments. This should give **E.L.K.** a steady to moderately increasing demand usage. The CDM programs and renewable energy initiatives will help to slow the current demand growth.

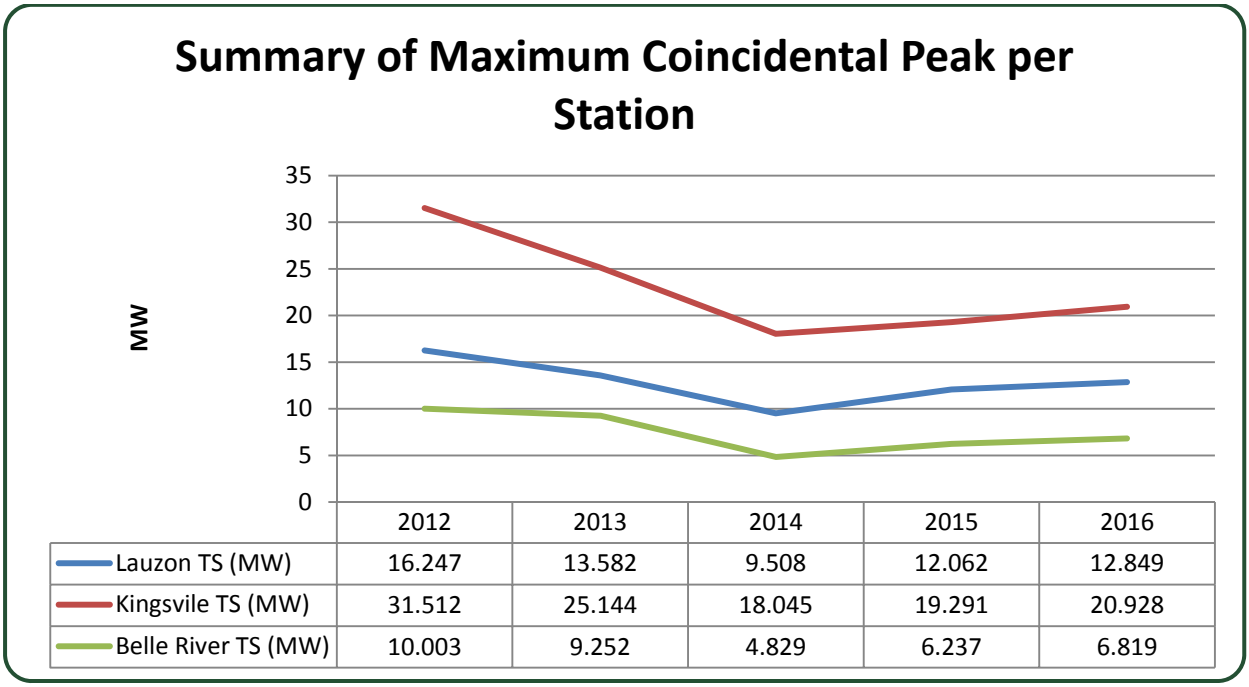
Key energy and demand figures separated into transformer station areas and based on historical information from 2007 to 2015 and projections from 2016 to 2017 are as follows:

The table below provides information about the Total Energy Consumption and Energy Demand per year



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Energy (GWh)	257.56	248.22	233.08	238.50	241.93	233.35	229.73	230.94	232.50	233.11	229.75
Demand (MW)	341.21	329.11	323.29	314.61	315.15	304.44	299.34	308.16	307.21	299.28	291.82

The table below provides a summary of the maximum coincident peak per station:



	2012	2013	2014	2015	2016
Lauzon TS (MW)	16.247	13.582	9.508	12.062	12.849
Kingsvile TS (MW)	31.512	25.144	18.045	19.291	20.928
Belle River TS (MW)	10.003	9.252	4.829	6.237	6.819

E.L.K.'s service area covers 22.22 square kilometers, and is comprised of six non-contiguous service areas, serving the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville. The service territory is shown in Appendix A.

The main function of **E.L.K.** is to receive power in bulk from delivery points and distribute it to the local consumers in **E.L.K.**'s service area.

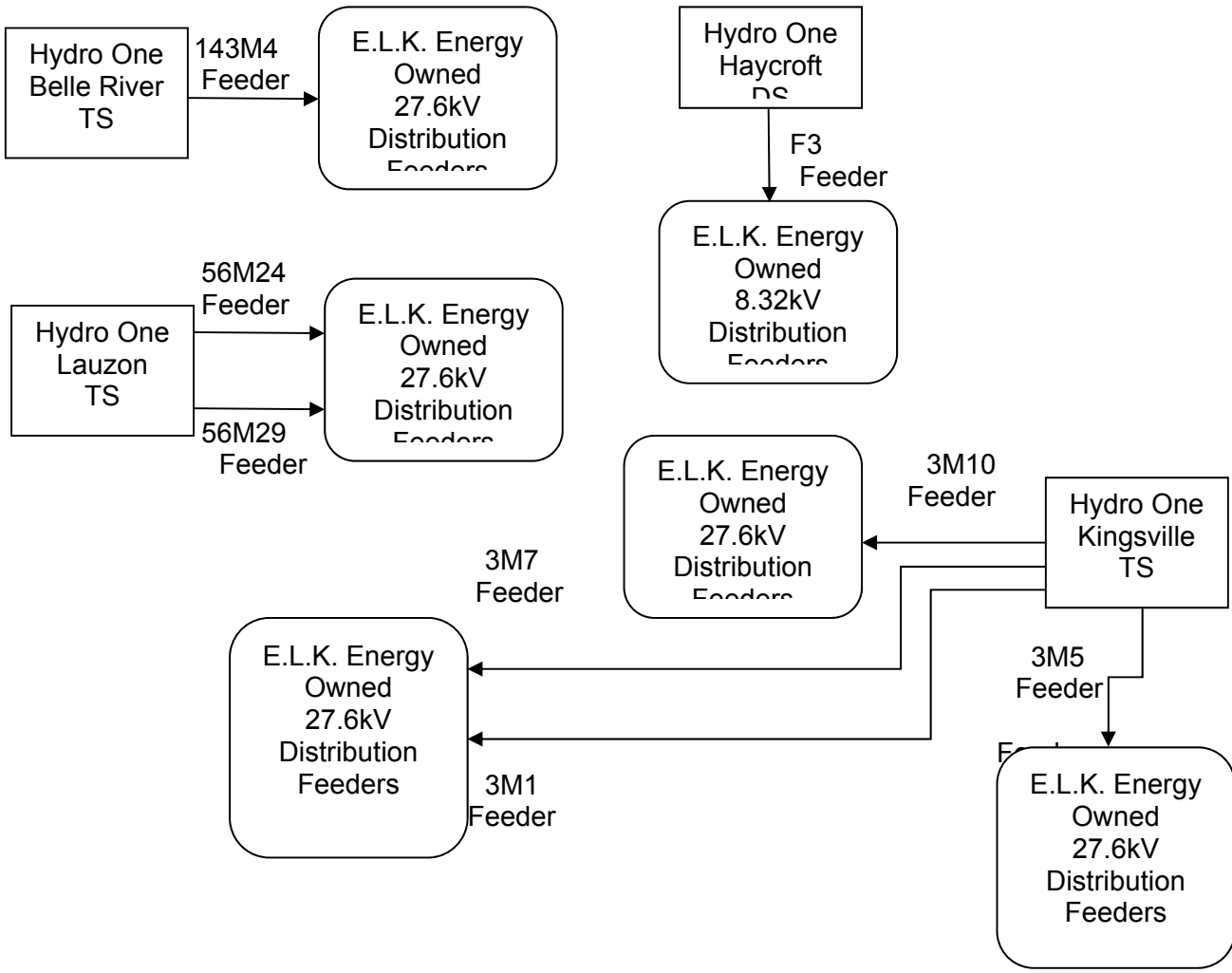
Delivery involves reducing the voltage of bulk power supply to the levels used in end-use electrical equipment. Delivery is achieved via conductors held above or below ground.

E.L.K. Assets include poles, conductors, line transformers, switches, conduits, computer systems and software, transportation equipment and office buildings.

NETWORK CONFIGURATION

E.L.K. Energy is connected to the Ontario power transmission grid at four (4) transformer stations which are owned by **Hydro One** (HO). **E.L.K.** Energy customers are supplied via seven (7) 27.6kV and two (2) 8.32 kV feeder circuits which emanate out of these transformer stations. Responsibility for maintaining circuits lies with the respective owners of the equipment.

The basic configuration is shown below.



5.3.2.3 Asset Information

The following table summarizes the approximate number of distribution assets within **E.L.K.**'s service territory.

The following table provides information regarding **E.L.K.**'s assets:

Wood Poles	2,993
Pole Mounted Transformers	1,167
Pad Mounted Transformers	665
Three Phase Pad Mounted Transformers	72
Gang Operated Overhead Switches	17
Meters	11,700
Pad Mounted Switchgear	2
Underground XLPE Cable	68.5 km

Please see Section 5.4.4 for the years in service profile of our distribution system assets. This information is current as of December 31, 2015.

ASSET CONDITION ASSESSMENT

At present **E.L.K.** does not have a formal asset condition assessment. All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address.

E.L.K. is a member of the Utility Standards Forum (USF) and relies on the cooperative efforts of the 49± members. Currently the Asset Management Working Group is developing a data base to:

- Compare data for industry-wide analysis, trending;
- Calculate health indices; acting as an individual asset tool, for planning and reporting.

The working group is starting with wood poles and will move through all of the major assets. When the templates become available, during the term of this plan, it is **E.L.K.**'s intention to adopt the templates created by USF, upload **E.L.K.**'s results to the data base and utilize the industry-wide (USF members) data. The health indices will assist in planning the Renewal projects and the budgeting process.

KEY SYSTEMS AND PROCESSES

E.L.K. Energy's key tool to manage asset knowledge is its AutoCAD Map 3D. This system in conjunction with a number of connected databases and spreadsheets residing on the outside of the main software platform contains the attributes for some of the distribution assets as noted in the above table. In addition to the AutoCAD Map 3D and databases, a number of paper records also exist which contain the asset information.

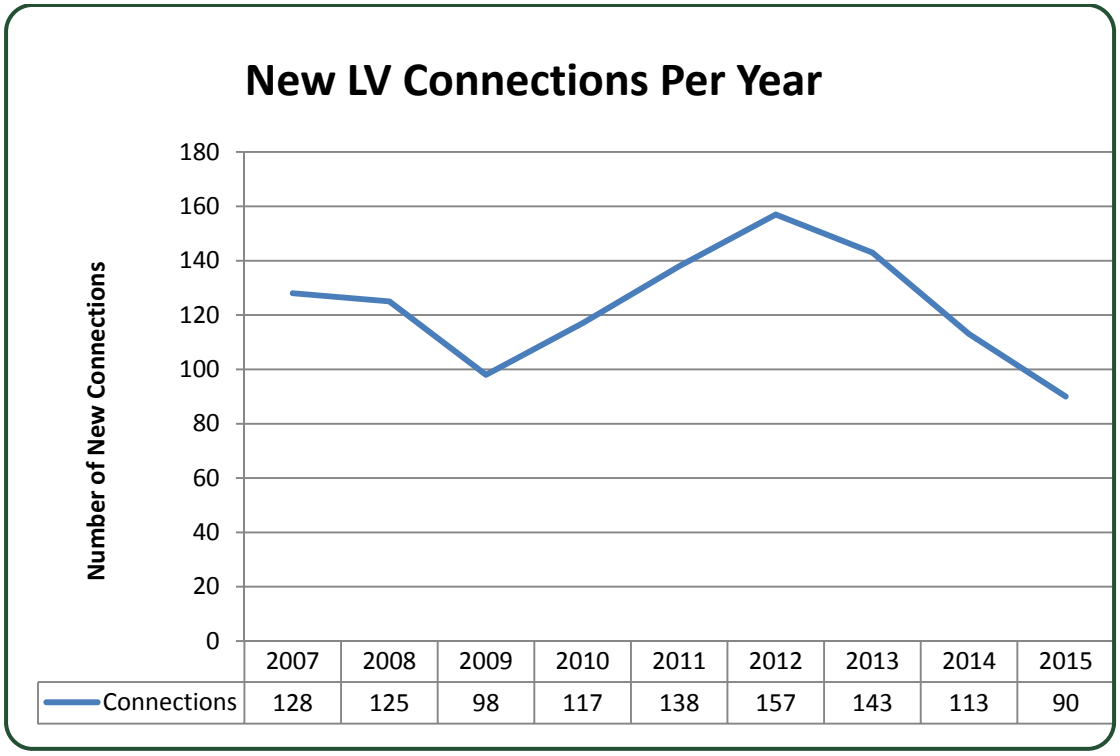
5.3.2.4 Capacity Assessment

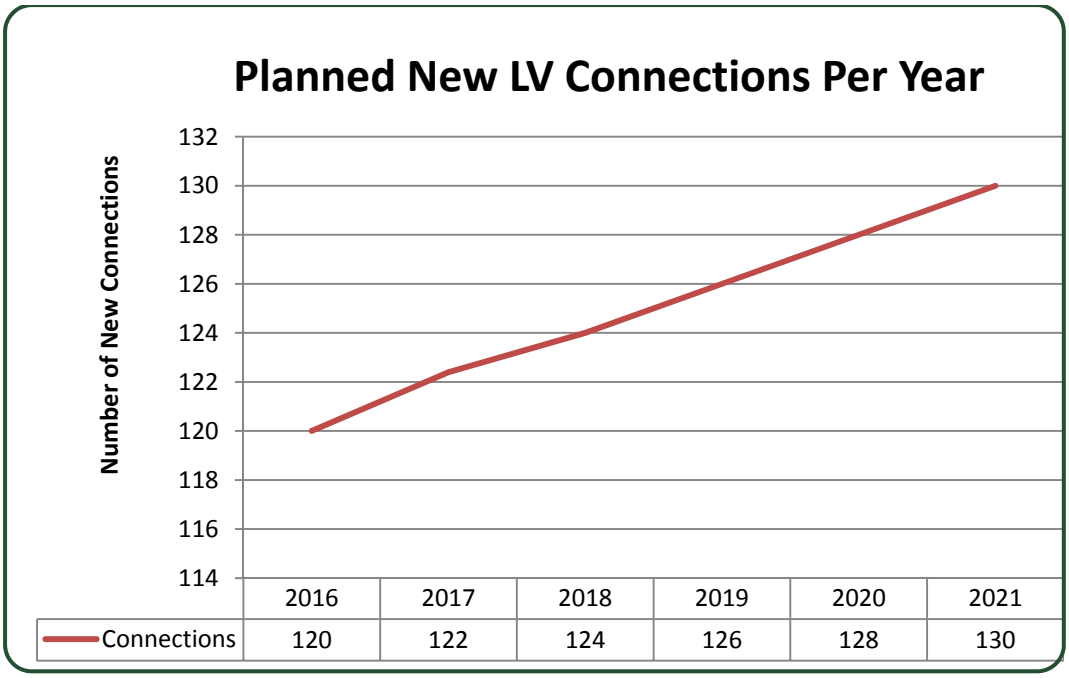
Apart from the sustainment of existing assets in the distribution system, **E.L.K.** has considered the needs of potential demand expenditures. They are required to supply the needs of a new customer, or to enhance reliability in an area where system capacity is constrained. **E.L.K.** has reviewed System Capacity and has also considered population growth, the economy and effectiveness of conservation programs. Within **E.L.K.**'s distribution system there are no current or foreseen capacity constraints. As E.L.K's service area.is comprised of 6 non-contiguous service areas completely embedded in **Hydro One** feeder capacity is managed by **Hydro One**. **E.L.K.** can connect up to 500kW of new or incremental load without notifying **Hydro One**. For loads greater than 500 kW **E.L.K.** must submit a New Customer Connection Information package to **Hydro One** requesting the capacity be allocated. If or when the capacity is allocated there will be a 1-2 year window to utilize the capacity.

In order to determine how growth might affect the distribution system, a number of areas need to be analyzed. These include: population forecasts, the number of new connections, the type of connections, and historical demand. Current steady population growth will not significantly affect the distribution assets within the planning horizon of 5 years.

NUMBER OF NEW CONNECTIONS

E.L.K.'s new connections have decreased dramatically since 2012. A portion of the decrease in 2015 was due to a building freeze initiated in one of **E.L.K.**'s service areas. The building freeze was lifted in the tail end of Q3, 2016. The following charts provide the specifics of historical trends and predicted future new low voltage (LV) connections.





ASSET LIFECYCLE OPTIMIZATION POLICIES AND PRACTICES (5.3.3)

Electricity assets, like any other type of physical assets, have a lifecycle. This section describes how **E.L.K.** assets are managed over their entire lifecycle, from conception to retirement.

E.L.K. will be working towards a lifecycle Asset Management program as the basis for longer-term planning and predictable investment levels that optimize operational and financial risks.

E.L.K.'s approach in Asset Lifecycle Management and Planning is holistic in nature, and takes into consideration the combined implications of managing all types of assets, including physical assets, financial and human capital.

MAINTENANCE PLANNING

E.L.K. Energy manages assets with the intent of providing a safe, efficient, reliable, and cost effective electricity distribution system.

For example distribution transformers are manufactured with the intent that there is no need to provide regular maintenance (maintenance free) for the duration of their lifecycle. Generally speaking they remain in service providing continuous service until they reach the end of their lifecycle – they fail in service.

At present **E.L.K.** Energy does not have a formal Maintenance and Inspection Program. All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address.

E.L.K. is a member of the Utility Standards Forum (USF) and relies on the cooperative efforts of the 49± members. Currently the Asset Management Working Group is developing a data base to:

- Compare data for industry-wide analysis, trending;
- Calculate health indices; acting as an individual asset tool, for planning and reporting.

The working group is starting with wood poles and will move through all of the major assets. When the templates become available, during the term of this plan, it is **E.L.K.**'s intention to adopt the templates created by USF, upload **E.L.K.**'s results to the data base and utilize the industry-wide (USF members) data. The health indices will assist in planning the Renewal projects and the budgeting process.

Line Clearing and Tree Trimming – **E.L.K.** has given more attention towards its vegetation management program/tree trimming and is getting caught up from prior years as well. This adds value to the customer, that even though it may not be a safety issue, **E.L.K.** is addressing customer concerns more promptly. **E.L.K.** is also addressing a reliability issue here. In 2015, **E.L.K.** reported 8 outages due to foreign interference, which resulted into 39 customer interruptions. A more stringent and improved tree trimming approach will address a number of these problems proactively for our customers. **E.L.K.**'s approach is that its overhead system gets cleared every four years, each area gets cleared once a year and the cycle continues again and as an as needed basis (more ad-hoc). Due to the gradual change in the earth's climate, including global climate change, an increase in a storm's intensity is now more prevalent. This has been evident in the past couple years in which there have been more violent storms in nature and **E.L.K.** predicts a similar trend. For example, just this past year summer, **E.L.K.**'s area encountered a severe tornado as well as significant flooding in which states of emergencies were declared and the province of Ontario were also called in to assist. This causes a significant increase in predicted cost with respect to overhead distribution lines and feeders, as the trend will likely continue due to the global climate changes affecting our environment.

UNDERSTANDING ASSET LIFECYCLES

Definition of Key Lifecycle Activities:

Activity	Detailed Definition
Operations	Involves changing the design parameters of an asset such as changes in circuit configuration or setting a tap on a transformer. Does not involve a physical change to the asset. Line clearing of trees is an operations activity.
Maintenance	Involves replacing consumable components on asset assemblies but not the whole assembly. Generally these sub components wear out before the whole assembly fails. For example an insulator on a pole assembly or an arc snuffer/muffler on a gang operated load break switch.
Sustainment	Involves replacing assets in terms of the assets listed under asset categories. For example replacing a pole in a pole line.
Retirement	Removes an asset from the distribution system. For example removing a redundant pole line from service. By definition retirement would be a reduction in the distribution system footprint.

OPERATING THE ASSETS

Operational activities generally arise in dealing with distribution system issues when assets are not operating as normal. For example a number of triggers exist as follows:

- Voltage levels too high or too low – outside of Canadian Standards Association Voltage Variation Limits for circuits up to 1000V under "Normal Operating and Extreme Operating Conditions"
- Fault current exceeds thresholds on protective devices such as reclosers, fuses, and breakers
- Demand exceeds thresholds on protective devices and or the assets current carrying capacity
- Customer concerns about the quality or reliability of electricity being supplied to them

MAINTAINING THE ASSETS

Maintenance deals primarily with replacing consumable components of assets. Components wear out in a number of ways, including oxidation, pitting or erosion of contact surfaces, material rot, gasket degradation, pitting of insulators, etc. Continued operations of devices which clearly exhibit component degradation, will eventually lead to a failure in the distribution system. Failure of assets is influenced by a complex interaction of parameters, such as quality of manufacture, quality of installation, age, operating hours, number of operations, loading cycles, stress due to fault events, ambient temperature, contaminants, and the maintenance performed during the life of the asset.

SERVICE LEVELS

E.L.K. considers its service levels, and relates them to the performance of its distribution assets.

E.L.K. assesses customers' preferences by obtaining informal feedback from customers during regular daily interactions with the utility. **E.L.K.** considers service levels to include a broad range of services, including capacity, quality of electrical supply, continuity, restoration, ground clearances to conductors, grounding of equipment (public safety), and the absence of (radiant) interference.

E.L.K. considers customer preferences to fall into three categories, in order of priority (highest to lowest), as follows:

- Reliability – continuity and reliability of electrical supply
- Quality – the absence of momentary interruptions and non-standard voltage levels
- Process – answering the phone, processing regular utility transactions such as new service connections and upgrades to electrical services, and outage notices

SERVICE LEVELS - RELIABILITY

Three internationally accepted indices measure the reliability of supply. These indices called SAIDI, SAIFI, and CAIDI, are defined as follows:

- SAIDI – System Average Interruption Duration Index – the average length of outage customers experience in the year– expressed as hours per customer per year;
- SAIFI – System Average Interruption Frequency Index – the average number of interruptions each customer experiences – expressed as number of interruptions per year per customer;
- CAIDI – Customer Average Interruption Duration Index – the speed at which power is restored – expressed as average duration in hours per customer per year.

RISK MANAGEMENT

E.L.K.'s Distribution System Maintenance and Inspection Program document is aimed, in part, at protecting the public from physical, electrical, and environmental hazards, by maintaining a schedule of regular asset inspections and maintenance activities.

Ontario Regulation 22/04 - Electrical Distribution Safety is a key regulation which requires **E.L.K.**, and all other LDCs, to maintain distribution standards, material standards, and construction verification programs to safeguard the public from hazards associated with the distribution system. The Electrical Safety Authority (ESA) is responsible for enforcing the regulation, and is ensured through a system of annual audits and regular field inspections.

E.L.K. promotes excellence in health and safety management in order to prevent losses to people, assets, environment, and reputation. Keys to this H&S Management system are the evaluation of risk for all workplace hazards, regular H&S meetings with staff, and feedback on losses or near losses occurring in the workplace.

Written emergency response procedures have been prepared as follows:

- Emergency Preparedness Plan

E.L.K. will follow all regulatory requirements and guidelines to ensure the distribution system has a low risk impact on the environment.

KEY ASSUMPTIONS

The development of this DSP is based on a series of key assumptions that are made as a foundation for planning and forecasting predictions of future activities, whether to maintain, replace or develop new assets (discretionary capital projects).

The key assumptions for this DSP are as follows:

- Electricity growth rates will continue to be slow in the next five (5) years due to an economy in recovery and the impact of the Conservation and Demand Management (CDM) Programs in lowering demand and electricity usage.
- Renewable Energy Generation will impact the system
- Recognition that the economy of the Towns of Essex, Kingsville and Lakeshore depends on a secure and reliable supply of electricity.
- In the next five (5) years, regulatory activities by the Ontario Energy Board (OEB) will continue at the current pace putting a heavy strain on **E.L.K.**'s resources.

- The Green Energy Act requires investments in the distribution infrastructure in order to meet the "Smart Grid" characteristics alluded to in the legislation.
- The majority of smart meters were installed in 2010. Investments to harness the data produced by the meters will need to be made to promote the "Smart Grid".
- Present service levels will continue to be maintained and will remain a balance between customer needs, price-quality trade-offs, and industry best practice(s). Service levels may change as a result of continuing efforts by the OEB to quantify certain measures as are contained in the LDC's Scorecard. There is a certain degree of uncertainty with respect to where the measures of the Scorecard will lead performance outcomes, as the OEB entertains comparing utilities' performance metrics.
- **E.L.K.**'s DSP is a strategic document to convey future distribution system development and maintenance plans to stakeholders.
- **E.L.K.**'s asset management systems will continue to evolve, in order to process performance information to meet demand, capacity, security, and reliability levels in a timely manner.
- Compliance with relevant regulatory requirements, as they pertain to electricity rates, filing requirements, health & safety, and environmental protection, will be maintained.
- Meeting the requirements of our Shareholder by achieving the objectives set in **E.L.K.**'s mission statement.
- Asset management planning involves forecasts based on information collected from many sources. Distribution system development for the next five (5) years has been projected; however, some planning areas in the last three (3) years of the plan are less certain, and are based solely on trending.

5.4 CAPITAL EXPENDITURES PLAN

5.4.1 Summary

A summary of **E.L.K.**'s capital expenditure plan is outlined below demonstrating key information and supporting information to explain in detail the significant aspects of the plan in order to meet **E.L.K.** strategic corporate objectives. The capital expenditure plan was developed in part by leveraging on key outputs within the asset management process. Projects have been divided into four categories as outlined in the **Filing Requirements**.

5.4.1.1 System Capability to Connect New Load or Generation

E.L.K. assesses system capacity capability through on-going updates to key information such as feeder capacity data along with CDM information and distributed generation ("DG") information contained in the **REG** investment plan. This information serves an important role in order to help identify historic and future load growth trends to assist in the decision-making process for system capacity changes. This step of reviewing the capabilities of the capacity of each feeder is followed by an individual assessment of various areas within each load centre on an as needed basis to determine potential constraints. The basis behind the system capability assessment was the resulting analysis of **E.L.K.**'s load forecasting. This forecasting showed that the requirement for additional capacity was not needed by future load growth in a general sense. Capacity issues were not identified on a feeder level.

E.L.K.'s distribution system peak load has seen a gradual decrease over the past two years with an average growth rate of approximately -2.5%. This rate factors in efforts of CDM and DG.

5.4.1.2 Capital Expenditures Over the Forecast Period

The total annual gross capital expenditures over the forecast period by investment category are presented in the Table below. The overall spending increases slightly over the forecast due to inflation however no material changes in investments are planned with the exception of 2018 and the forecasted increase in Access investment. Additionally an increase in System Renewal projects between 2018 and 2019 is as a result of the reduced fleet costs in the General Plant category. The renewal program will be focusing on a pole replacement program which will complement the purchase of the new RBD in 2017 and the mini RBD in 2019.

Category	Forecast Period (planned)				
	2017 Test Year	2018	2019	2020	2021
System Access	560,210	677,053	693,979	711,329	729,112
System Renewal	261,793	295,149	459,279	476,214	301,272
System Service	-	-	-	-	-
General Plant	491,500	457,000	202,000	177,000	337,000
Total Expenditure	1,313,503	1,429,202	1,355,258	1,364,543	1,367,384

5.4.1.3 Planning

During the five-year period, **E.L.K.** is strategically planning to make leveled investment in distribution infrastructure required for system sustainment, and in the short–term, intends to concentrate on investing in general assets that support service reliability and customer preferences. Therefore, the main investment drivers are in the areas of end of useful life of the assets, business operational efficiently, reliability and customer preferences. Capital spending by category is designed to meet both defined customer preferences and distribution system requirements.

- System Access investments are planned on historical actual levels required to meet regulatory obligations for connections, upgrades and plant relocation driven by customers and third parties. **E.L.K.** expects that its system will continue to be able to accommodate the vast majority of requests for new load connections and for service upgrades.
- System Renewal investments are based on the requirements of asset replacement programs, mainly driven by pole replacement. Plans for replacements are based on consideration of age and condition of assets. The proactive replacement of system components prior to failure will reduce costs associated with outage response and reactive replacement. Adjustments to the programs will be completed with gathering more detailed asset condition information and records. The annual investments are leveled to ensure consistency throughout the planning process.
- System Service spending is focused on system reliability improvement projects, which are based on outage considerations, system impact, smart grid upgrade scenarios and

customer preferences. **E.L.K.** has not experienced any major issues with connection of existing microFIT or small FIT projects to its system, and does not expect any issues within the current five-year plan, based on the anticipated volume of new projects.

- General Plant category is focused on ensuring that adequate tools, such as OMS, are in place to support the day-to-day operations, and to improve customer communications in contingency scenarios of unplanned outages. **E.L.K.** has incorporated the customer preferences obtained through targeted customer research and customer engagement process.

Asset enhancement and development projects have been identified, and details are outlined in the capital budgets for 2016.

Refer to Appendix F for Summary of Five-Year Plan for Capital-related Expenditures (2017 – 2021).

5.4.1.4 Projects

E.L.K. has prepared a list and brief description including total capital cost of material capital expenditure project/activities sorted by category shown in the Table below. It is important to note the **E.L.K.** does not have a complete list of detailed projects contained within a number of the activities for the 2017 test year due to the nature of these programs which consist of a series of numerous individual projects below the materiality threshold.

Projects	2012	2013	2014	2015	2016 Bridge Year	2017 Test Year
System Access						
Unknown Access Projects						$501,210
186 Talbot					$43,375	
FIT Contributions	$60,300	$ 45,000	$28,893	$42,300	$63,900	
Smart Meters	$57,319					
Comber Solar	$67,810					
Cooper Estates Ph 4B	$66,701					
Cottam Woods Solar	$ 125,965					
Townsview Ph 3	$52,865					
Timbercreek Estates Ph 1		$ 122,068	$37,754			
3 Phase Pump Feed		$ 25,252				
Jakana Phase 4		$ 161,193				
ROATC Phase 7		$ 80,885				
Tim Horton's Harrow		$ 51,328				
FIT 200 Clark Street		$ 65,634				
Kingsville Commercial Development	$62,729					
Notre Dame Street Project Phase 2		$ 620,528				
Kimball Estates Phase 4			$39,500		$67,015	
Woodview Phase 2			$ 103,369			
Bacon Development Phase 4E			$92,733			
Woodslee Solar Garden			$69,148	$56,870		
JV Energy			$57,145			
Notre Dame Street Phase 3			$89,944			
ROATC Phase 8A			$ 102,047			

Projects	2012	2013	2014	2015	2016 Bridge Year	2017 Test Year
Truax FIT		$ 53,027				
Shoppers Harrow				$72,206		
Agris				$84,647		
Tesla				$72,916		
225 Prince Albert					$50,972	
319 Talbot					$51,816	
Bernath					$ 169,043	
Cottam Woods Phase 3A					$84,853	
285 Division					$79,796	
ROATC Phase 5					$ 111,183	
Pumping Station #3					$86,309	
KPMG Reclass				$ 366,021		
Service Connections	$72,965	$ 91,490	$96,768	$98,936	$ 128,000	$ 59,000
System Access Totals	**$ 566,654**	**$ 1,316,405**	**$ 717,301**	**$ 793,896**	**$936,262**	**$560,210**
System Renewal						
Underground Asset Renewal	$ 206,859	$ 109,702	$ 133,322	$ 494,469	$ 261,632	$261,793
System Renewal Totals	**$ 206,859**	**$ 109,702**	**$ 133,322**	**$ 494,469**	**$261,632**	**$261,793**
General Plant						
Fleet Replacement Unit #303						$445,000
Fleet - UG Truck Replacement			$70,712			
General Plant Totals	**$-**	**$-**	**$70,712**	**$-**	**$-**	**$445,000**

5.4.1.5 RPP and DSP

As a result of the regional planning process within the Windsor-Essex area, the **Hydro One** SECTR project was put forward and approved by the OEB in 2015 as a solution to areas constraints. The SECTR project is currently being constructed by **Hydro One** and planned to be in-service in Q1 of 2018. Cost allocation for the SECTR project is currently being reviewed by a working group with the OEB. As such no cost has been included within this plan.

5.4.1.6 Customer Preferences

In order to obtain information about customer needs and preferences for use in developing the 2016 Distribution System Plan and Cost of Service application, **E.L.K.** conducted the following activities:

i. Analyzed quantitative and qualitative data such as:

- Results of Oracle Poll Customer Satisfaction Survey conducted by telephone in the summer of 2016, evident in Exhibit 1,
- Summary of Call Centre tracking of inbound call statistics, customer inquiries (topics), complaints and feedback
- Website analytics
- Feedback from customers obtained through outreach activities

E.L.K. uses these activities to:

- inform its customers on the proposals being considered for inclusion in this Application and the value of those proposals to customers i.e. costs, benefits and the impact on rates, and
- Incorporate feedback obtained from customers into planning, prioritizing, and justifying proposed capital expenditures in this Application.

Topics of material interest to customers with regard to the distribution system that were identified through these activities include:

- Capital Expenditure Plan – Support
- Capital Expenditure Plan – Rates
- Operations and Maintenance Plan – Support
- Operations and Maintenance Plan – Rates

5.4.1.7 The Planning Horizon

g) a brief description of how the distributor expects its system to develop over the next five years, including in relation to load and customer growth, smart grid development and/or the accommodation of forecasted renewable energy generation projects;

E.L.K. expects the distribution system within its service territory to follow a rather normal trend based on historic activities from the last five years. Load and customer growth rates are expected, on average, to be in the range of 0.8% and 1.3% respectively. **E.L.K.** has outlined in the DSP a number of initiatives that will shape the development of the distribution system over the planning horizon which include:

- A shift in capital expenditures from growth to renewal.

In relation to Smart Grid development, **E.L.K.** expects minimal investment in this area over the forecast period.

As evident in our **REG** investment plan in Exhibit 2 Appendix 2B, **E.L.K.** has sufficient capacity to connect renewable energy projects and, therefore, will be able to accommodate the majority of generation requests easily and with very little capital investment into the distribution system.

5.4.1.8 Projects Relative to Customer Preferences, Technology and Innovation

The following Table summarizes planned 2017 projects in relation to Customer Preferences (1), to take advantage of Technology based opportunities (2) and to demonstrate innovative processes (3).

Projects	(1) Customer Preference, (2) Technology Based, (3) Innovative Process	2017 Test Year
		Budget
System Access		
Unknown system access projects	1	$501,210
Service connections	1	$59,000
Total System Access		$560,210
System Renewal		
Underground Rejuvenation - Augustine	1	$261,793
Total System Renewal		$261,793
System Service		
No projects planned for 2017		$0.00
Total System Service		
General Plant		
Fleet replacement Unit #303		$445,000
Computer Hardware and Software	2	$28,500
Building and Fixtures		$18,000
Total General Plant		$491,500
Total of all Categories		$1,313,503

CAPITAL EXPENDITURE PLAN – SUPPORT

The following preamble describing the capital expenditure plan was read to respondents after which they were asked if they supported the initiative.

E.L.K. *Energy's electrical infrastructure dates back to the 1950's and some are now approaching the end of their useful life, potentially impacting the reliability of electricity delivery. It is estimated that 38% of all power outages are caused by equipment failures.*

As a result, ***E.L.K.****'s Operations Department have recommended spending approximately $1.3 million on capital expenditures in 2017, which is about the same that was spent in 2015. These capital expenditures include inspections and replacement of poles and lines that are nearing this end of their useful lives, connecting new customers to the electricity grid, implementing smart switching and monitoring equipment to minimize outage times, computer system upgrades, office improvements and the replacement of aged fleet vehicles.*

Q20. "Do you support this capital expenditure plan by E.L.K.?"

Yes, I support this plan recommended by **E.L.K.**'s Operations Department	76%
No, I do not support the plan recommended by **E.L.K.**'s Operations Department	3%
No opinion (Don't care)	8%
Don't know	12%

More than three-quarters majority or 76% (n=229) support the plan recommended by **E.L.K.**'s Operations Department. A very low 3% (n=10) of customers do not support this plan while two in ten (n=61) have no opinion on this issue (8%) or are unsure (12%).

When supporters were asked their main reason for backing the plan, 26% cited the need for reliable service or fewer outages, 21% said it is needed for the future, 11% that maintenance is required, 10% that upgrades are required and 7% that all utilities need to modernize. Other mentions included that it will save money in the long run (6%), that **E.L.K.** has managed well in the past (5%) and that this plan has worked well elsewhere (3%), while 11% did not know.

Among opponents (n=10), comments for not backing the plan included the belief the plan will be too costly (n=3), that the LDC has already spent money on upgrades (n=3), that rates will increase (n=2), while n=2 were unsure.

Feedback from those unsure or with no opinion (n=61) centred mostly on the need for more information (44%), having nothing to compare it to (n=7), needing more time to consider the issue (8%) and to be sure that upgrades are required (3%). A high 33% did not know or had no comment.

CAPITAL EXPENDITURE PLAN – RATES

They were next asked if they would support the capital expenditure plan even if it resulted in an increase in their monthly bill.

Q22. "The recommended capital program will ultimately have an impact on rates or customers bills. Would you support this infrastructure renewal plan even if it resulted in an increase in your monthly energy bill?"

Yes, I fully support the Operations Department recommendations	18%
Yes, I support the Operations Department recommendations, provided the bill increases are modest	39%
No, I do not support any bill increases (even if this means more frequent and longer power outages)	29%
Don't know	14%

Presented with the scenario of increased rates under the plan, 57% would still support it with 18% fully backing it and 39% if the rise in price is modest. A total of 29% do not support the bill increases even if it would result in more and longer outages.

OPERATIONS AND MAINTENANCE PLAN – SUPPORT

The following preamble describing the operations and maintenance plan was read to respondents after which they were asked if they supported the initiative.

E.L.K. operating budget also impacts on the customer bills including the costs for managing and maintaining the system. It's operating budget for 2017 is currently planned to increase to approximately 3.3 M, which is about 20% higher than prior years. The increases are primarily due to succession planning, and reorganizing staffing levels in order to provide customers with a better overall customer experience. **E.L.K.**'s outside service will increase as well due to additional customer engagement efforts (like this survey). In addition, it is focused on updating and maintaining its overhead and underground lines, feeders and meter maintenance.

Q23. "Do you support this operations and maintenance plan by E.L.K.?"

Yes, I support the plan recommended by **E.L.K.**	77%
No, I do not support the operations and maintenance plan by **E.L.K.**	3%
No opinion (Don't care)	3%
Don't know	17%

Support for the operations and maintenance plan is high at 77% (n=230), with opposition very low at 3% (n=10), while 20% (n=60) did not know (17%) or had no opinion (3%).

The main reason that supporters provided for being behind the plan included the belief it is a good idea and that they support it (40%), that it is needed for improved service (19%), that upgrades or improvements are required (15%), to reduced outages or surges (6%) and that underground lines are a good idea (3%). 17% did not know or had no opinion.

Among those not supporting the plan (n=10), there were n=5 that cited the belief that rates will increase, n=2 that it is too costly, while n=3 did not know.

When feedback was solicited from the (n=60) that had no opinion or did not know, a high 35% were still unsure, while 27% said that they needed more information on the issue and 20% that they wanted to know details on how the money would be spent (20%). Other comments included needing to be sure that upgrades were necessary (8%), requiring more time to consider the matter (7%) and having nothing in context to compare this issue to (3%).

OPERATIONS AND MAINTENANCE PLAN – RATES

They were next asked if they would support the operations and maintenance plan even if it resulted in an increase in their monthly bill.

Q25. "The operations and maintenance plan will ultimately have an impact on rates or customers' bills. Would you support this plan even if it resulted in an increase in your monthly energy bill?"

1 fully support the operations and maintenance plan	22%
2 Yes, I support the operations and maintenance plan, provided the bill increases are modest	47%
3 No, I do not support the operations and maintenance plan (even if it improves customer service)	21%
Don't know	10%

Support for the operations and maintenance plan is still high at 69% even with the prospect of increased monthly bills. A total of 22% fully support the initiative and 47% would be behind it if rate increases were modest. There are 21% that do not support the plan even if customer service would be improved and 10% were undecided.

5.4.2 Capital Expenditure Planning Process Overview

5.4.2.1 Capital Expenditure Planning Objectives

The following information provides an overview of **E.L.K.**'s capital expenditure planning process which includes details on planning objectives, planning criteria and assumptions used in the development of the capital expenditure plan. The asset management process is the foundation to the DSP and the capital expenditure plan which helps align each to overall corporate objectives. By following a strategic approach to the capital expenditure planning process **E.L.K.** achieves efficiencies in work practices and productivity along with creating and maintaining a distribution system capable of meeting the needs of existing and future customers and providing the highest level of shareholder and customer value.

In the development of the capital expenditure plan, a number of objectives and planning processes are observed and adhered to in order to align the plan with the goals and overall strategic direction of the company. **E.L.K.**'s planning objectives that have informed the distribution system plan and capital expenditure plan include as follows:

- Ensure proper allocation of investments to meet regulatory obligations of the system access such as metering, system relocations for municipal road work, and future system requirements for residential, commercial and industrial customers;

- Ensure adequate level of investment in the renewal of distribution system assets to maintain a safe and reliable system;

- Determine the acceptable level of expenditures required to maintain sufficient system capacity to meet existing and future capacity demand levels;

- Ensure proper allocation of investments in general plant assets to support investment initiatives; and

- Review overall expenditures and determine impacts to financials, and adjust spending as required.

E.L.K. has determined that there are a number of important inputs required in order to support and ensure capital expenditure objectives and the level of investment is appropriate and is targeted to the correct area. As such, key planning criteria inputs are utilized to support investments in the four main categories as follows:

- Consultation with municipal officials to understand future projects requiring relocation of distribution system assets in support of System Access investments;
- Incorporating elements of the municipal planning departments to assist in forecasting capital expenditures for residential developments in support of System Access investments;
- Outage reports to support expenditures related to asset renewal to maintain the system as designed in support of System Renewal investments. This is further aided by **E.L.K.**'s prioritization methodology that helps plan the implementation of projects based on a key set of criteria as outlined in section 5.4.2.c;
- System capacity assessments including load forecast models based on information related to CDM, DG and service territory development at each level of the distribution system including station, area and feeder to maintain adequate capacity margins to supply system security and to improve operational efficiency in support of System Service investments; and
- Individual assessments on key areas in general plant such as building, IT and Fleet required to support expenditures.

As part of the capital expenditure planning process, **E.L.K.** has determined a number of assumptions are also made in order to support in the development of a capital expenditure plan, these key assumptions include:

- The use of historical trends in categories related to system access to forecast capital expenditures
- The validity of information from stakeholders including developers and customers with respect to future requirements of the distribution system to service new projects.
- The use of historical growth, CDM and DG rates to assist in the forecasting future contributions to the demand of the distribution system

E.L.K.'s asset management goal is to identify and implement the optimal timing and methodology of asset replacement and maintenance, in such a way as to minimize risks to **E.L.K.**'s Vision, Mission and Core Values, while maximizing long term investment benefits. Each of the asset management objectives described in Section 5.3.1.1 are considered by utilizing them in the weighting of objectives to assist in the selection and prioritization of projects in the capital expenditure planning process.

E.L.K. believes that the same objectives and criteria are required to connect and accommodate the connection of renewable generation facilities and has not outlined any specific objectives for this area. **E.L.K.**'s distribution system has the capabilities as outlined in the **REG** plan to accommodate future renewable generation facilities.

5.4.2.2 Alternatives for System Capacity Planning and Operational Constraints

E.L.K. considers all viable alternatives for resolving system capacity issues or operational constraints. For all identified issues and constraints, a "do-nothing" alternative is considered, in order to determine whether the risks associated with the issue/constraint merit any significant investment. Once a capacity issue or operational constraint has been identified for which "do-nothing" is not an acceptable approach, **E.L.K.** considers all reasonable alternatives to resolve the issue. **E.L.K.** does not expect any capacity related issues within the distribution system over the 5 year planning horizon. The Regional Planning Process has played a role in assessing alternatives resulted in a more formal approach for upstream transmission system capacity constraints.

5.4.2.3 Processes, Tools & Methods

The following methods are used to identify, select, prioritise and pace projects for each investment category:

System Access

System access projects are non-discretionary in nature. Projects are identified through contact with customers wishing to connect new services or requests from municipal land owners to relocate assets to accommodate road construction. Prioritization of projects is based on the expected date when all service requirements will be fulfilled by the customer, as identified through regular contact between both parties. Projects are paced to ensure that low voltage connections are completed within five days of the fulfillment of all service conditions and high voltage services are connected within ten days of the fulfillment of all service conditions. **E.L.K.** works closely with the municipal planning departments to ensure that adequate budgeting and planning is in place to accommodate System Access projects.

System Renewal

E.L.K. identifies asset replacement requirements through its asset data base and outage information for its key distribution system assets. Projects are identified, selected, prioritized and paced through the following process and the steps are utilized in the calculation and prioritization:

System Renewal investments involve replacement and refurbishment of system assets to maintain the system's ability to provide reliable electricity services to customers. As assets become aged and reach end of life EOL, these investments are necessary to rectify and maintain the overall asset health condition at an acceptable level to prevent decline in system reliability performance and mitigate safety risks to **E.L.K.** employees and the public.

E.L.K.'s decisions on asset replacement and refurbishment are based on asset conditions, age and outage statistics. Therefore, System Renewal investments proposed in this DSP include proactive replacements to address targeted assets identified in the review.

E.L.K. is a member of the Utility Standards Forum (USF) and relies on the cooperative efforts of the 49± members. Currently the Asset Management Working Group is developing a data base to:

- Compare data for industry-wide analysis, trending;
- Calculate health indices; acting as an individual asset tool, for planning and reporting.

The working group is starting with wood poles and will move through all of the major assets. When the templates become available, during the term of this plan, it is **E.L.K.**'s intention to adopt the templates created by USF, upload **E.L.K.**'s results to the data base and utilize the industry-wide (USF members) data. The health indices will assist in planning the Renewal projects and the budgeting process.

System Service

System Service projects follow a three-step process: Identification, Selection and Prioritization

System Service projects are identified through a variety of methods. These methods include, load monitoring and load forecasting are used to predict high-level future capacity constraints. These constraints may be at an area-wide or feeder level. Service and transformer level constraints are identified through smart meter and load monitoring.

The selection process for System Service projects involves identifying various alternative solutions to solve constraint issues. This process is done to determine projects with the highest economic benefit, as well as to minimize the unnecessary replacement of assets, or optimizing which assets are replaced or upgraded. The identification of alternative solutions does not follow a regimented process, but is instead the result of an investigative effort to determine the root cause of the constraint. Once the root cause is determined, and depending on the scope of the root cause, a range of alternatives is explored to solve the problem. Examples of this process include analyzing the feeder loading to determine if permanently moving a line segment to a different feeder will solve the problem, determining whether asset capacities need to be increased (such as in the case of an overloaded transformer), among many other possible solutions. Solutions will be selected based on their feasibility, given time, cost and resource constraints, and the degree to which they can be integrated into other efforts such as system access or system renewal projects, to maximize the benefit of the investment while minimizing the cost.

Identified and selected projects are prioritized based upon urgency and the anticipated time to complete the project. Constraints that already exist have highest priority, followed by near future constraints. System Service projects are then paced to ensure that the predicted constraints are relieved before they impact the distribution system. Pacing may also be accelerated where a solution has synergy with a related system access or system renewal project and the related project is already scheduled in advance of the system service project.

General Plant

General Plant projects are identified and assessed using a combination of inspections, policies and expert knowledge. Projects included in this category include investments related to **E.L.K.**'s vehicle fleet, the purchase of major tools, investments related to the Administration Building and Service Centre as well as investment in computer equipment and software.

Fleet

E.L.K. manages a fleet of vehicles that are essential to the efficient and effective day-to-day operation of the utility. This fleet includes bucket trucks, a radial boom derrick (RBD),

underground service truck, dump truck, various trailers, small pickup trucks, SUV's, chipper and backhoe. It is crucial that all fleet vehicles are maintained properly and replaced in a timely manner - keeping overall costs in mind. This requires balancing new vehicle purchase costs against excessive repair bills and operational downtime that occur when vehicles are kept for too long. **E.L.K.**'s fleet vehicle replacement determination considers the following factors:

a. Age of the vehicle,
b. Odometer reading,
c. Maintenance costs,
d. Annual vehicle test results, including stress/electrical testing,
e. Practicality of existing vehicle including new technology available,
f. Changing emissions, weight, and road safety regulations obsoleting some existing units, and
g. Crew/other department needs.

When the age of the vehicle approaches its life expectancy, a case by case evaluation is done to determine whether or not replacement is an option ahead of or later than the vehicles normal life expectancy - with factors noted above as additional considerations.

Odometer readings are considered when contemplating vehicle replacement. Generally, when a vehicle reaches 100,000 km, a vehicle's residual value drops significantly and maintenance costs will begin to increase.

Vehicle testing includes bucket trucks and RBD's that are tested annually for insulation resistance – the main electrical property of the boom assembly and structural stability. If significant work is required to maintain the unit within specifications, this could drastically impact planned vehicle replacement timelines. In addition, changes to provincial vehicle regulations can impact residual values through changes in planned or existing use limitations for large fleet vehicles.

Major Tools

This category is used for the purchase of tools and equipment where the cost generally exceeds $1,000. **E.L.K.** continually looks at upgrading outdated tools and equipment and looks for newer more effective technology that will result in more efficient work practices, combined with the most ergonomic way of accomplishing a task. Decisions requiring the selection and prioritization of these investments are made using expert knowledge and observing changes to industry best practices, as well as balancing the costs of the purchases with the anticipated reduction in work effort.

Building / Fixtures

Investments in this category are identified through inspections carried out on the building assets, expert opinion and through observing, noting and repairing issues throughout the building. Investment levels for maintenance items are based on typical and historical expenditures and include items such as interior and exterior lighting, asphalt, doors and fixtures, HVAC maintenance, yard maintenance, parking lot repair, security system maintenance and building mechanical systems. Investments are also planned based on utilization of the existing building and fixtures. For example, expansion of the building may be required if personnel and

equipment needs are forecasted to increase beyond what can be reasonably accommodated by the existing assets.

IT Capital

Projects are grouped into Hardware and Software. Projects are selected and prioritized in order to maintain effective and efficient business processes, ensure support for disaster and business continuity and to maintain integrated and reliable enterprise solutions. Planning of IT capital expenditures is based on estimated life cycle of both hardware and software as well as the expertise of IT professionals. Annual IT capital projects are based on identified need in the organization, best practices in network and security systems, expert knowledge and feedback received from employees.

5.4.2.4 Customer Engagement Mechanisms

E.L.K. actively communicates with its customers regarding ongoing business, accomplishments and changes in regulatory matters. Customers' feedback and experiences were collected via targeted customer research, and were incorporated into this DSP throughout the planning process.

Current engagement touch points are:

Engagement Mechanisms	Customer Class	Stages Process	Aspects of DSP Affected
Telephone calls and emails to Call Centre – inquiries, complaints, topics of interest	All	Planning Phase	Reliability Project Identification Outage management Cost Control Vegetation management Development of Customer Preferences Justification of capital expenditures Ranking and prioritization of projects
Telephone calls to OPS Department	All	Planning Phase	Plant Relocations requirements Development of Customer Preferences Power Quality Projects Identification New construction Justification of capital expenditures Ranking and prioritization of projects Capacity planning
Surveys - Bi-annual Utility PULSE Customer Satisfaction Telephone Survey – 2013 - Online Customer Survey – 2014	Residential Commercial	Planning Phase	Reliability Project Identification Cost Control Development of Customer Preferences Outage management
Face-to-Face Discussions	Commercial	Planning Phase	Justification of capital

Engagement Mechanisms	Customer Class	Stages Process	Aspects of DSP Affected
- With Engineering, Metering Operations and CDM staff	Industrial		expenditures Ranking and prioritization of projects Plant Relocations Reliability Projects Identification Capacity planning System access
Meeting and Information Sessions	Municipality	Planning Phase	Capital planning for growth Power quality Reliability Projects Identification Ranking and prioritization of projects
Community Outreach Activities	Residential	Planning Phase	Outage management Safety Cost Control
Focus Groups	Residential Small Commercial	Review of DSP	Justification of capital expenditures Power quality Reliability Projects Identification Ranking and prioritization of projects
Telephone Survey	Residential Small Commercial	Review of DSP	Cost Control Development of Customer Preferences Outage management Reliability Projects Identification
Advertising - Bill messages and inserts - Media releases - Conservation	All	Planning Phase	Capacity planning Development of Customer Preferences Safety
CDM Activities - Commercial and Industrial Visits - Outreach activities and Events - eMerge home visits - Advertising	All	Planning Phase	Capacity planning System access

Customer Surveys - **E.L.K.** conducted a customer satisfaction survey and targeted research of customer preferences to support the DSP investment planning process. To ensure impartiality and objectivity of the results, **E.L.K.** has contracted third parties to design and conduct the surveys. The results of the customer survey were previously summarized as well as in Exhibit 1. It is important to note the importance of the educational component delivered by skilled communication experts.

Meetings with Commercial and Industrial Customers – Large general service customers are contacted to review opportunities and to explore conservation initiatives and opportunities, as well as to learn more about changes in the industry.

Corporate Website – The website provides a one-stop location for **E.L.K.**'s customers to gain access to important information on distribution services, rates, regulatory matters and decisions, customer initiatives, conservation and demand management programs. **E.L.K.**'s website also provides customers a mechanism by which to reach out for services and provides contact information. **E.L.K.** is offering e-billing.

Bill Inserts – **E.L.K.** send bills inserts regularly to its customers with monthly invoices. This includes information on specific customer initiatives, energy savings coupons, safety messages, community involvement, distribution and cost of power rate information, and information regarding current CDM initiatives.

Conservation and Demand Management ("CDM") Programs – **E.L.K.** remains diligent in promoting and engaging customers through its CDM programs through a variety of outreach efforts, including the placement of ads, marketing material displays in keys areas of all municipal and community outreach events. **E.L.K.** has engaged Greensaver in 2015 and 2016 to administer CDM programs for **E.L.K.** customers.

5.4.2.5 REG Investment Prioritization Method & Criteria

E.L.K. has not included any **REG** investments in the current DS Plan.

5.4.3 System Capability Assessment for Renewable Energy Generation

E.L.K. has not identified the need for renewable generation enabling capital expansion expenditures in its five-year capital program. **E.L.K.** is aware of the capacity of its feeders to accept generation and current constraints are either maximum feeder capacity or supplier issue. There are no other **REG** investments contemplated at this time.

5.4.3.1 Renewable Generator Applications Over 10 Kw

As of December 31, 2015, **E.L.K.** has connected 5 FIT projects and these FIT projects represent a total of 1,680 kW of generation. **E.L.K.** has connected 139 MicroFIT projects, totaling 1,280.5 kW of generation.

5.4.3.2 Anticipated Number & Capacity of REG Connections

To date **E.L.K.** Energy has had no inquiries with respect to any renewable generation in excess of 500 kW. Given that renewable generation programs have been available for some time and have matured over a number of years it is likely that **E.L.K.** Energy Service Areas will not be a centre for large scale solar or wind projects. This being said, the focus in **E.L.K.** Energy will be FIT and microFIT projects (≤500 kW) which are of a much smaller scale than the large developments. **E.L.K.** Energy sees restrictions in the near future in the development of FIT and microFIT projects as several of our feeders are nearing the 7% or 10% peak feeder values.

Type of Project	2014	2015	2016	2017	2018	2019	2020	2021
microFIT Solar PV-≤10kW	7	8	6	6	6	6	6	6
microFIT Wind-≤10kW	0	0	1	0	0	0	0	0
FIT->10kW-≤250kW	2	0	2	1	1	1	1	1
FIT->250kW-≤500kW	1	1	1	0	1	0	1	0

5.4.3.3 REG Connection Capacity (MW)

E.L.K. has system capacity and will be able to accommodate the **REG** connections within the five-year planning period. **Please refer to Table located in 5.4.3.4 below**.

5.4.3.4 REG Constraints

There may however, be limitations with respect to the transmission and distribution stations owned by Hydro One. **E.L.K.** Energy will continue to offer microFIT connections until formally notified otherwise by Hydro One. FIT connections are subject to impact assessments which will identify any issues prior to an offer to connect.

E.L.K. Energy Inc. has established limits for the amount of generation on each of its seven 27.6kV M class feeders and two 8.13kV F class feeders. These capacities are based on 10% and 7% respectively of the feeders peak load. The Peak Load and Available Generation Capacity are noted in Table 1 below:

Station	Feeder	Voltage (kV)	Peak Load (kW)	Capacity Allowance (%)	Generation Capacity (kW)	Existing Generation (kW)	Available Generation Capacity (kW)	Known FIT Projects (kW)
Belle River TS	M4	27.6	7697	10	770	485.83	284.17	859.65
Haycroft DS	F3	8.13	1402	7	98	80	0	10
Kingsville TS	M1	27.6	9927	10	993	0	993	133
Kingsville TS	M5	27.6	17566	10	1757	0	1757	1,177.41
Kingsville TS	M7	27.6	12225	10	1223	0	1223	520
Kingsville TS	M10	27.6	2,126	10	213	249.5	0	472.175
Lauzon TS	M24	27.6	7,888	10	789	31.2	757.8	195
Lauzon TS	M29	27.6	8,824	10	882	7.41	874.59	190

5.4.3.5 Embedded Distributor Constraints

E.L.K. has no embedded distributors.

5.4.4. Capital Expenditure Summary

DRIVERS BY INVESTMENT CATEGORY

System Access

The primary driver of this activity is customer service requests and mandated obligations under the Distribution System Code (DSC). This allows **E.L.K.** to satisfy its asset management objective of providing for the needs of customers, as well as meeting regulatory requirements. This program is justified because of customer service requests that are relatively consistent year over year, in terms of both the number of requests, and the investments required to complete the connections.

System Renewal

This capital expenditure includes all "like for like" replacement costs related to renewal of major assets (poles, reclosers, switches, etc.) because of failure, serious damage or end of useful life. Major drivers in this category are risk of failure, substandard performance and functional obsolescence.

System Services

These projects will improve system reliability, automation and/or contingency performance. Examples of projects in this category are smart grid development, installation of electronic reclosers and outage management systems.

General Plant

The vehicle replacements in this category are driven by **E.L.K.**'s evolving requirements for capital to support day-to- day business and operations activities. The timing of project-related expenditures has been determined based on adjustments related to asset condition and to end of useful life of the asset. Other investments in this category relate to IT enhancements to meet customer preferences.

SYSTEM RENEWAL MATERIAL INVESTMENTS (PROGRAM PRIORITIZATION)

SUSTAINMENT STRATEGI ES AND RESULTS

Significant advancements in asset management tactics were implemented and described in **E.L.K.**'s Distribution Asset Management Plan filed in 2012. This DSP has continued on this path of improvement by adding additional data and analytics to its program development.

For all major asset categories, **E.L.K.** considers asset age, condition data and, specifically, the severity of identified defects for the various asset types, along with typical useful lives (**E.L.K.** utilizes the typical useful life of assets noted in the Kinectrics study7). As a result, for each major asset category, **E.L.K.** is able to define levels of capital investment for renewal that tie to performance outcomes.

Asset data provided is current to December 31, 2105.

RESULTS:

To determine its future focus, **E.L.K.** implemented the above approach and reviewed the assessment of customer preferences, as garnered through **E.L.K.**'s engagement activities.

The table, below, summarizes **E.L.K.**'s system renewal / asset sustainment capital programs, at the selected levels. The subsequent sections further describe investment levels for each asset category.

				2016	2017	2018	2019	2020	2021
Wood Poles			Units	15	15	30	90	90	30
	Unit Cost	$2,200.00	Unit Cost w/Brdn	$2,442.00	$2,490.84	$2,540.66	$2,591.47	$2,643.30	$2,696.17
	Burden	$242.00	Program Cost	$36,630.00	$37,362.60	$76,219.70	$233,232.29	$237,896.94	$80,884.96
Pole Mounted Transformers			Units	0	0	10	10	10	10
	Unit Cost	$3,400.00	Unit Cost w/Brdn	$3,774.00	$3,849.48	$3,926.47	$4,005.00	$4,085.10	$4,166.80
	Burden	$374.00	Program Cost	$0.00	$0.00	$39,264.70	$40,049.99	$40,850.99	$41,668.01
Pad Mounted Transformers			Units	14	15	5	10	10	2
	Unit Cost	$6,065.00	Unit Cost w/Brdn	$6,732.15	$6,866.79	$7,004.13	$7,144.21	$7,287.10	$7,432.84
	Burden	$667.15	Program Cost	$94,250.10	$103,001.90	$35,020.64	$71,442.11	$72,870.96	$14,865.68
Three Phase Pad Mounted Transformers			Units	0	0	0	0	0	1
	Unit Cost	$30,000.00	Unit Cost w/Brdn	$33,300.00	$33,966.00	$34,645.32	$35,338.23	$36,044.99	$36,765.89
	Burden	$3,300.00	Program Cost	$0.00	$0.00	$0.00	$0.00	$0.00	$36,765.89
Meters - Residential & GS<50			Units	0	0	200	200	200	200
	Unit Cost	$200.00	Unit Cost w/Brdn	$222.00	$226.44	$230.97	$235.59	$240.30	$245.11
	Burden	$22.00	Program Cost	$0.00	$0.00	$46,193.76	$47,117.64	$48,059.99	$49,021.19
Meters - GS>50			Units	20	25	25	25	30	30
	Unit Cost	$1,290.00	Unit Cost w/Brdn	$1,431.90	$1,460.54	$1,489.75	$1,519.54	$1,549.93	$1,580.93
	Burden	$141.90	Program Cost	$28,638.00	$36,513.45	$37,243.72	$37,988.59	$46,498.04	$47,428.00
Overhead Switches			Units	0	0	1	0	0	0
	Unit	$28,000.00	Unit	$31,080.00	$31,701.60	$32,335.63	$32,982.34	$33,641.99	$34,314.83

				2016	2017	2018	2019	2020	2021
	Cost		Cost w/Brdn						
	Burden	$3,080.00	Program Cost	$0.00	$0.00	$32,335.63	$0.00	$0.00	$0.00
UG Cable			Units	740	600	200	200	200	200
	Unit Cost	$125.00	Unit Cost w/Brdn	$138.75	$141.53	$144.36	$147.24	$150.19	$153.19
	Burden	$13.75	Program Cost	$102,675.00	$84,915.00	$28,871.10	$29,448.52	$30,037.49	$30,638.24

*Note: Unit costs in the table above are derived using historical averages of direct costs, and then escalated year over year, based on an assumed 2% (reflecting CPI). In addition, a burden rate of 11% is added to adjust to the cost to include related corporate overheads and other allocations.

WOOD POLES

RESULTS O F ASSET EVALUATION

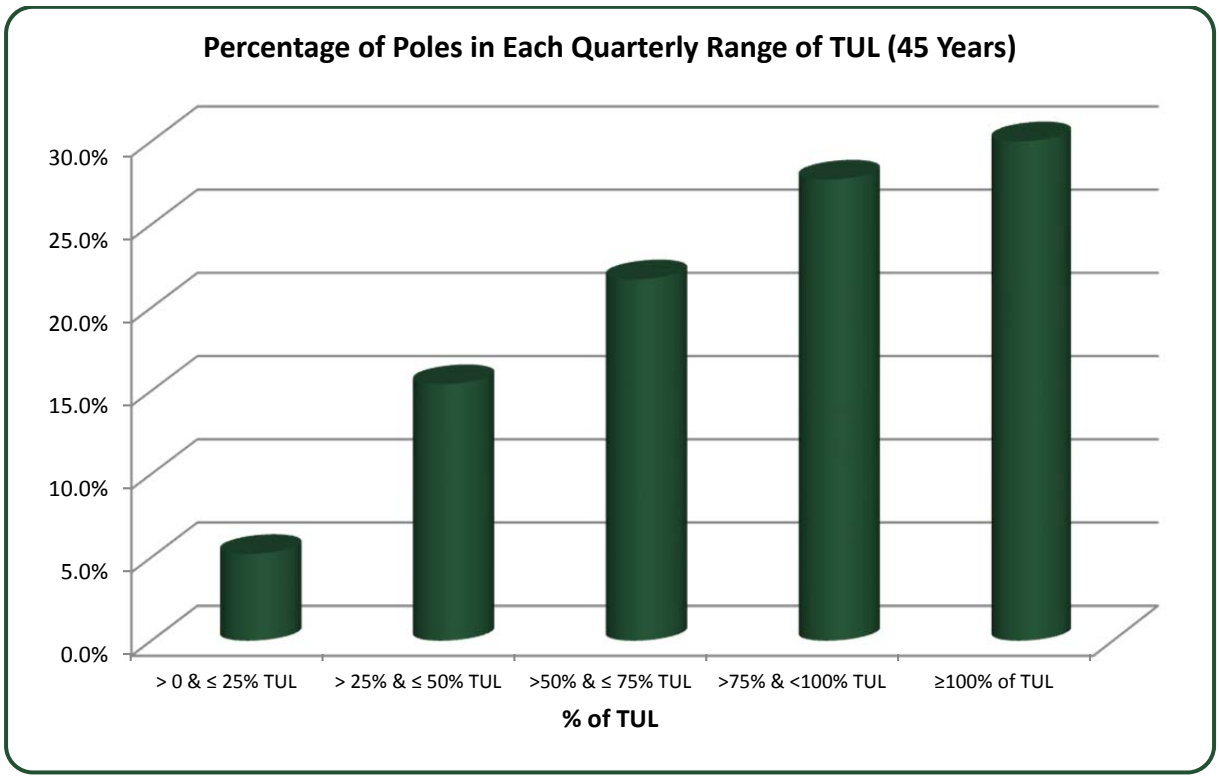
Wood Poles, by far, have the largest number of assets within the distribution system. The age and condition of poles covers the full range of possibilities, from newly installed to below fifty (50) years of age. **E.L.K.** has used a Typical Useful Life (TUL) of forty-five (45) years for poles. 30% of **E.L.K.**'s wood poles are over 45 years old.

The table and graphic below provide information about the total wood pole count of 2993. The average pole age is 36 years, and 70% of the poles are under TUL.

The table below provides information about the number of wood poles at different age categories based on pole age. 9.4% of the poles are approaching the TUL during the planning period and 30% are over the TUL. **E.L.K.** is planning for their replacement.

	Age at % of TUL	Age Range	# of Poles in Range	Percentage of Poles in Range	Cumulative Percentage
> 0 & ≤ 25% of TUL	11.25	0 to 11	155	5.2%	
> 25% & ≤ 50% of TUL	22.5	12 to 22	462	15.4%	20.6%
>50% & ≤ 75% of TUL	33.75	23 to 33	648	21.7%	42.3%
>75% & <100% of TUL	45	34 to 44	830	27.7%	70%
≥100% of TUL		45 or greater	898	30%	100%
Total # of Poles			2993		

The following graphic depicts the percentage of poles in each quarterly range of TUL (45 years).



The replacements of “like-for-like” are planned based on pole age and condition criteria.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for wood poles. The method is described above.

				2016	2017	2018	2019	2020	2021
Wood Poles			Units	15	15	30	90	90	30
	Unit Cost	$2,200.00	Unit Cost w/Brdn	$2,442.00	$2,490.84	$2,540.66	$2,591.47	$2,643.30	$2,696.17
	Burden	$242.00	Program Cost	$36,630.00	$37,362.60	$76,219.70	$233,232.29	$237,896.94	$80,884.96

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

POLE-MOUNTED TRANSFORMERS

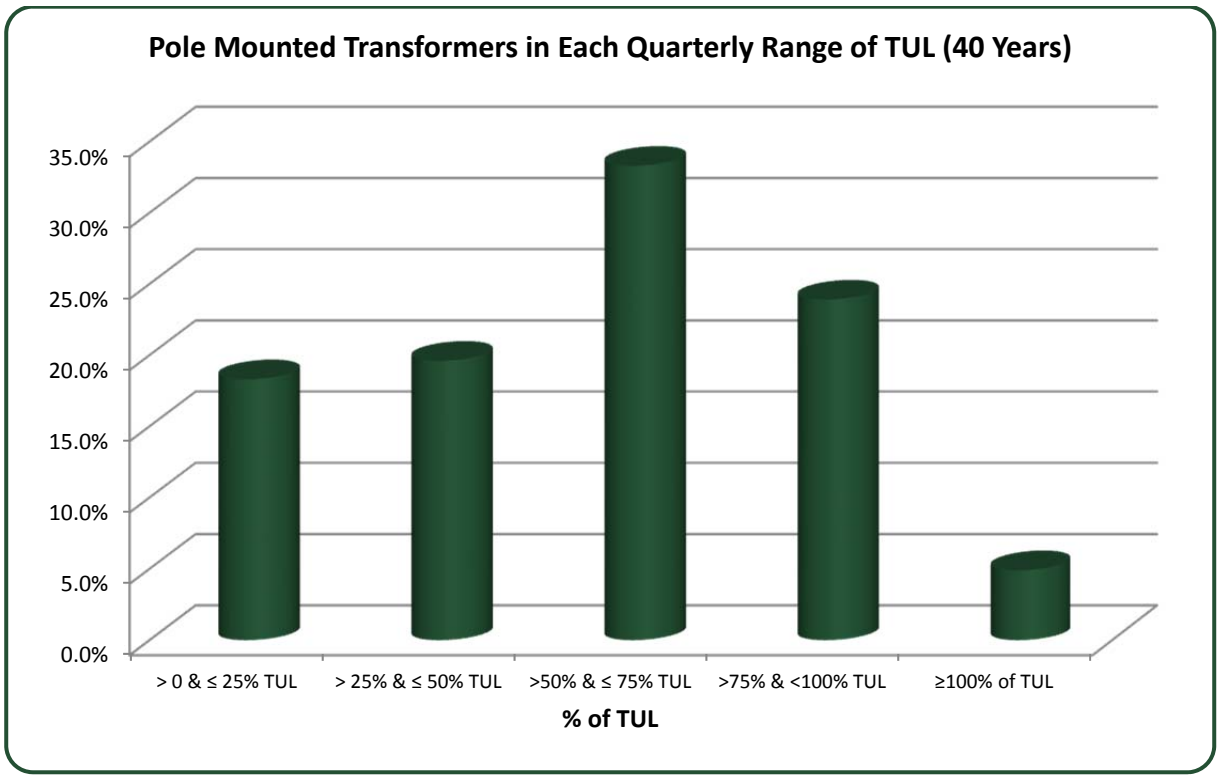
RESULTS OF AS SET EVALUATION

Pole-Mounted Transformers, as a whole, constitutes a very large asset base. **E.L.K.** has used a Typical Useful Life (TUL) of forty (40) years for Pole-Mounted Transformers. The table below provides information about the total pole-mounted transformers count (1167). The average pole-mounted transformer age is 23.7 years, and 95.1% of the pole-mounted transformers are under TUL.

The table below provides information about the number of pole-mounted transformers at different age categories. Note that 9.7% of pole-mounted transformers are approaching the TUL during the planning period and 4.9% are over the TUL. **E.L.K.** is planning for their replacement.

	Age at % of TUL	Age Range	# of Transformers in Range	Percentage of Poles in Range	Cumulative Percentage
> 0 & ≤ 25% of TUL	10	0 to 10	213	18.3%	
> 25% & ≤ 50% of TUL	20	11 to 20	229	19.6%	37.9%
>50% & ≤ 75% of TUL	30	21 to 30	389	33.3%	71.2%
>75% & <100% of TUL	40	31 to 39	279	23.9%	95.1%
≥100% of TUL		40 or greater	57	4.9%	100%
Total # of Poles			1167	100%	

The graphic below shows the percentage of pole-mounted transformers in each quarterly range of TUL (40 years).



E.L.K. is planning for pole-mounted transformers replacements based on transformer age and condition criteria.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for pole-mounted transformers. The method is described above.

					2016	2017	2018	2019	2020	2021
Pole Mounted Transformers			Units		0	0	10	10	10	10
	Unit Cost	$3,400.00	Unit Cost w/Brdn		$3,774.00	$3,849.48	$3,926.47	$4,005.00	$4,085.10	$4,166.80
	Burden	$374.00	Program Cost		$0.00	$0.00	$39,264.70	$40,049.99	$40,850.99	$41,668.01

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

SINGLE PHASE PAD -MOUNTED TRANSFORMERS

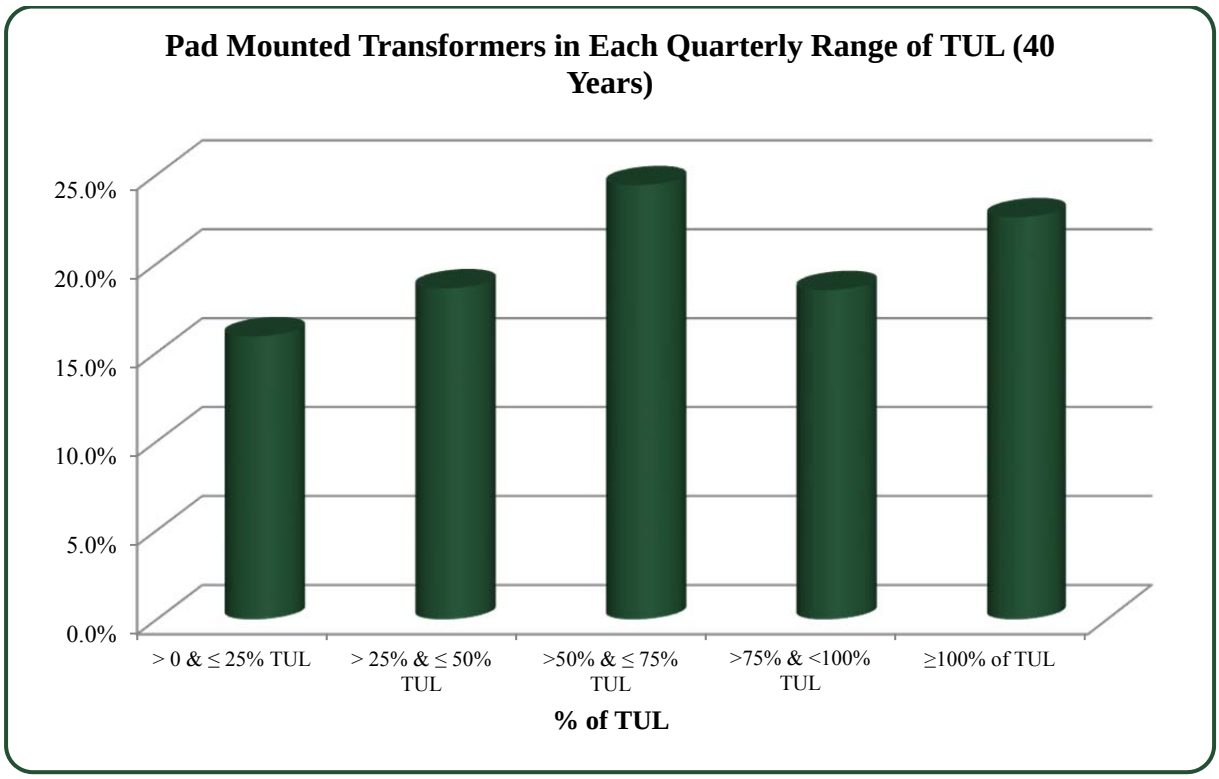
RESULTS O F ASSET EVALUATION

Single Phase Pad-Mounted Transformers, as a whole, constitutes a large asset base. **E.L.K.** has used a Typical Useful Life (TUL) of forty (40) years for Pad-Mounted Transformers. The table below provides information about the total count of pad-mounted transformers (665). The average age is 21.5 years, and 77.4% of the pad-mounted transformers are under TUL.

The table below provides information about the number of pad-mounted transformers at different age categories based. 14.6% of the transformers are approaching the TUL during the planning period, and 22.6% is over the TUL. **E.L.K.** is planning for their replacement.

	Age at % of TUL	Age Range	# of Transformers in Range	Percentage of Poles in Range	Cumulative Percentage
> 0 & ≤ 25% of TUL	10	0 to 10	106	15.9%	
> 25% & ≤ 50% of TUL	20	11 to 20	124	18.6%	34.5%
>50% & ≤ 75% of TUL	30	21 to 30	162	24.4%	58.9%
>75% & <100% of TUL	40	31 to 39	123	18.5%	77.4%
≥100% of TUL		40 or greater	150	22.6%	100%
Total # of Poles			**665**	**100%**	

The graphic below shows the percentage of pad-mounted transformers in each quarterly range of TUL (40 years).



E.L.K. is planning for pad-mounted transformer replacements based on transformer age and condition criteria. Live front transformers will take precedence.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for pad-mounted transformers. The method is described above.

				2016	2017	2018	2019	2020	2021
Pad Mounted Transformers			Units	14	15	5	10	10	2
	Unit Cost	$6,065.00	Unit Cost w/Brdn	$6,732.15	$6,866.79	$7,004.13	$7,144.21	$7,287.10	$7,432.84
	Burden	$667.15	Program Cost	$94,250.10	$103,001.90	$35,020.64	$71,442.11	$72,870.96	$14,865.68

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

THREE PHASE PAD -MOUNTED TRANSFORMERS

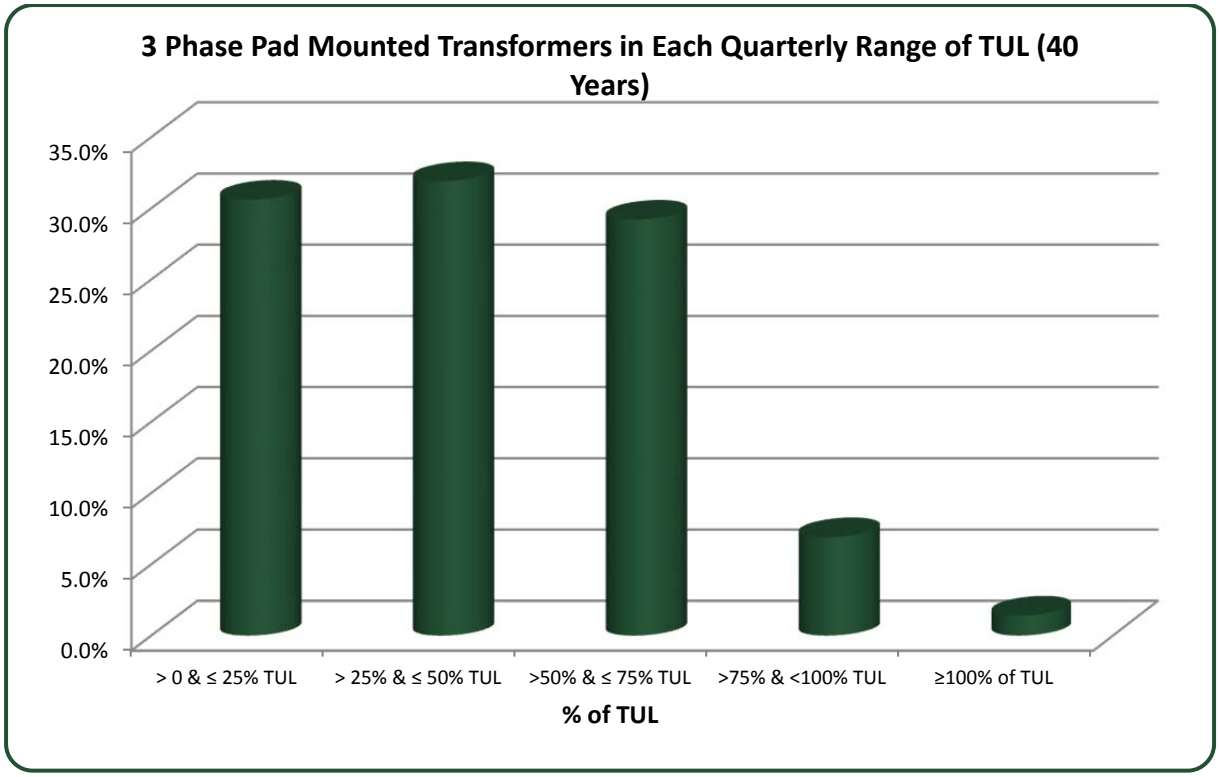
RESULTS O F ASSET EVALUATION

Three Phase Pad-Mounted Transformers, as a whole, are a smaller asset base with significant value. **E.L.K.** has used a Typical Useful Life (TUL) of forty (40) years for Pad-Mounted Transformers. The table below provides information about the total count of pad-mounted transformers (72). The average age is 16 years, and 98.6% of the pad-mounted transformers are under TUL.

The table below provides information about the number of pad-mounted transformers at different age categories based. 0% of the transformers are approaching the TUL during the planning period, and 1.4% is over the TUL. **E.L.K.** is planning for their replacement.

	Age at % of TUL	Age Range	# of T in Range	Percentage of Poles in Range	Cumulative Percentage
> 0 & ≤ 25% of TUL	10	0 to 10	22	30.6%	
> 25% & ≤ 50% of TUL	20	11 to 20	23	31.9%	62.5%
>50% & ≤ 75% of TUL	30	21 to 30	21	29.2%	91.7%
>75% & <100% of TUL	40	31 to 39	5	6.9%	98.6%
≥100% of TUL		40 or greater	1	1.4%	100%
Total # of Poles			**72**	**100%**	

The graphic below shows the percentage of pad-mounted transformers in each quarterly range of TUL (40 years).



E.L.K. is planning for pad-mounted transformer replacements based on transformer age and condition criteria. Live front transformers will take precedence.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for pad-mounted transformers. The method is described above.

				2016	2017	2018	2019	2020	2021
Three Phase Pad Mounted Transformers			Units	0	0	0	0	0	1
	Unit Cost	$30,000.00	Unit Cost w/Brdn	$33,300.00	$33,966.00	$34,645.32	$35,338.23	$36,044.99	$36,765.89
	Burden	$3,300.00	Program Cost	$0.00	$0.00	$0.00	$0.00	$0.00	$36,765.89

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

METERS

RESULTS O F AS SET EVALUATION

There are 11,704 meters within the distribution system. **E.L.K.** has used a Typical Useful Life (TUL) of fifteen (15) years for commercial meters and ten (10) for smart meters. Meter age range is from newly installed to below ten (10) years of age. **E.L.K.** has complied with Ministry of Energy's directive8 from 2004 and has provided smart meters to all its residential and GS<50kW customers. **E.L.K.** has upgraded all of its meters. The bulk replacement of these meters took place in 2010.

E.L.K. is currently in the process of upgrading its entire base of commercial (over 50 kW) meters. **E.L.K.** has used a Typical Useful Life (TUL) of fifteen (15) years for meters. The replacements are planned, based on meter age and condition criteria as well as current meter failure rate experience to predict future needs.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for meters. The method is described above.

				2016	2017	2018	2019	2020	2021
Meters - Residential & GS<50			Units	0	0	200	200	200	200
	Unit Cost	$200.00	Unit Cost w/Brdn	$222.00	$226.44	$230.97	$235.59	$240.30	$245.11
	Burden	$22.00	Program Cost	$0.00	$0.00	$46,193.76	$47,117.64	$48,059.99	$49,021.19

				2016	2017	2018	2019	2020	2021
Meters - GS>50			Units	20	25	25	25	30	30
	Unit Cost	$1,290.00	Unit Cost w/Brdn	$1,431.90	$1,460.54	$1,489.75	$1,519.54	$1,549.93	$1,580.93
	Burden	$141.90	Program Cost	$28,638.00	$36,513.45	$37,243.72	$37,988.59	$46,498.04	$47,428.00

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

OVERHEAD SWITCHES

RESULTS OF ASSET EVALUATION

Overhead Switches are a group of 17 assets within the distribution system. The age of gang operated switches is spread over a broad range 1975 to 2005. **E.L.K.** has used a Typical Useful Life (TUL) of sixty (60) years for Overhead Switches. The replacements are planned based on asset age and condition criteria.

There are no switches reaching end of life over the plan period. **E.L.K.** is planning to change out 1 switch with some operational issues before the end of 2018.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for overhead switches. The method is described above.

				2016	2017	2018	2019	2020	2021
Overhead Switches			Units	0	0	1	0	0	0
	Unit Cost	$28,000.00	Unit Cost w/Brdn	$31,080.00	$31,701.60	$32,335.63	$32,982.34	$33,641.99	$34,314.83
	Burden	$3,080.00	Program Cost	$0.00	$0.00	$32,335.63	$0.00	$0.00	$0.00

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

PAD -MOUNTED SWITCHES

RESULTS O F AS SET EVALUATION

Pad-mounted Switches are a group of 2 assets within the distribution system. The average age of the Pad- mounted Switches is 14 years. **E.L.K.** has used a Typical Useful Life (TUL) of

twenty (20) years for Pad-mounted Switches. The replacements are planned based on asset age and condition criteria.

There are no plans for replacements within the scope of this DSP.

E.L.K.'S PADMOUNT SWITCHES SUSTAINMENT LEVELS

There are no plans for replacements within the scope of this DSP.

BUDGETS AND FORECAST

There are no plans for replacements within the scope of this DSP.

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

CROSS -LINKED POLYETHYLENE (XLPE) UNDERGROUND CABLES

RESULTS O F AS SET EVALUATION

Cross-linked polyethylene (XLPE) underground cables are installed in mostly underground fed residential subdivisions. A small portion of cable serves as distribution feeders from our overhead distribution system where necessary. Their condition is generally very good. **E.L.K.** Energy has used a Typical Useful Life (TUL) of forty (40) years for underground cables. Records for annual cable installations began in 2001. The first underground installations in **E.L.K.** Energy's service areas were in 1969.

BUDGETS AND FORECAST

The following table provides the potential level (units) of investment for underground cable.

					2016	2017	2018	2019	2020	2021
UG Cable			Units		740	600	200	200	200	200
	Unit Cost	$125.00	Unit Cost w/Brdn		$138.75	$141.53	$144.36	$147.24	$150.19	$153.19
	Burden	$13.75	Program Cost		$102,675.00	$84,915.00	$28,871.10	$29,448.52	$30,037.49	$30,638.24

- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

TOTAL CAPITAL COST FOR SYSTEM RENEWAL

The asset replacement cost for the period from 2016 to 2021 amounts to total of $2,055,900 over the DSP period.

	2016	2017	2018	2019	2020	2021
System Renewal	$262,193	$ 261,793	$ 295,149	$ 459,279	$ 476,214	$ 301,722

SYSTEM SERVICE AND GENERAL PLANT M ATERIAL INVESTMENTS

PROJECT PRIORITIZATION

General information concerning planned capital projects is provided in Appendix H. Each project activity includes a description, general project information and project drivers. Additionally, strong considerations have been given to the risk associated with the corresponding alternatives. The projects were identified with attributes and project elements, i.e. main driver, planned start date, planned in- service date and expenditure timing over the planning horizon. Project elements have been standardized in order to facilitate the comparison based on pre-selected criteria fulfilling OEB evaluation requirements.

The table below provides a material investment summary based on Capital projects from 2016 to 2021 in System Service and General Plant Category.

	2016	2017	2018	2019	2020	2021
System Service						
General Plant	$ 148,500	$ 491,500	$ 457,000	$ 202,000	$ 177,000	$ 337,000

SYSTEM SERVICE CAPITAL PROJECTS

E.L.K. does not have any planned investment in system service for the DSP planning period.

GENERAL PLANT CAPITAL PROJECTS

FLEET PURCHASES

A. GENERAL INFORMATION ON THE PROJECT

A truck replacement schedule has been created utilizing industry best practices in terms of equipment age, kilometers and cost of repairs (details in Appendix G) to understand the general timing of equipment replacements. Replacement schedules are based on the following useful lives:

- Large Trucks with Mounted Equipment – 15 years
- Medium Trucks with Mounted Equipment – 10 years
- Small Trucks – 8 years
- Trailers – As required

Industry best practice replacement schedules noted above have been established and determined to:

- Minimize repair costs
- Minimize truck down time
- Maximize re-sale value
- Maximize efficiencies by taking advantage of changes in design technology

The most significant risk to continue to use a unit beyond its useful life is the risk of having a major truck component failure, which requires a major expense. Examples of failure for large trucks would be an engine replacement, failure of the aerial device hydraulic systems, or a boom structure failure. Spending a significant amount on a truck repair when the truck is beyond its optimum age is not cost-effective. Based on the useful lives and consideration of other risk factors, **E.L.K.** has determined a vehicle replacement schedule. **E.L.K.** has identified that a radial boom derrick, bucket truck, dump truck and 2 SUV`s need to be replaced over the next five years. The vehicle replacement program is detailed in Appendix G.

B. EVALUATION CRITERIA AND INFORMATION REQU IREMENTS

1. EFFICIENCY, CUSTOMER V ALUE, RE L IABILITY

The main driver for this capital investment is related to replacement of end of life distribution system maintenance support assets. The fleet vehicles are required to allow for inspections, patrols and emergency response through various seasons and ground conditions. System reliability is directly dependent on **E.L.K.**'s ability to access its assets.

2. SAFETY

E.L.K.'s overall lifecycle management of fleet assets results in the availability of safe, reliable vehicles to support operational activities.

3. CYBER-SECURITY, PRIVACY

N/A

1. CO -O RDINAT IO N, INT E RO PE RABIL IT Y

N/A

5. ECONOMIC DEVELOPMENT

E.L.K. sources new vehicle purchases through Ontario dealers when available.

6. ENVIRONMENTAL BENEFITS

Newer fleet assets are generally more fuel-efficient than the units being replaced. As a result, **E.L.K.**'s fleet is expected to become more fuel-efficient over time.

C. CATEGORY SPECIFIC REQUIREMENTS

Investment in fleet replacements is planned at a sustaining pace based on an optimized lifecycle management approach to each fleet item.

SYSTEM ACCESS

NEW CONNECTIONS

To calculate capital requirements for new connections, **E.L.K.** relies on historic unit cost information and escalates at the expected cost of inflation. A burden rate reflecting corporate overheads and related allocations is also added. The following table summarizes our expected System Access costs.

	2016	2017	2018	2019	2020	2021
System Renewal	$1,068,807	$560,210	$677,053	$693,979	$711,329	$729,112

At time of writing **E.L.K.** is not aware of any other third party driven requests.

NEW CONNECTIONS COST S

E.L.K. has shown an increasing amount of growth in LV connections. **E.L.K.**'s average cost per lot paid by **E.L.K.** to the developers from 2013 – 2015 is $1,536.37 and the developers average cost per lot is $2,290.55.

5.4.4.1 Proposed Capital Investment

E.L.K. has described its approach for major capital investments. Specifically, in the area of System Renewal **E.L.K.** relies on asset demographic and condition data to develop investment levels, which are then tied to portfolio performance and relative reliability outcomes. For System Service projects, a prioritization method is used to objectively assess material investments against corporate objectives as described. In addition, projections for System Access have been developed that include a forecast of new connections over the plan period, against which historic unit costs have been applied. The following table summarizes **E.L.K.**'s capital plan over the DSP period.

Proposed Capital Investment 2017 to 2021							
	2017	2018	2019	2020	2021	Total	Average
System Access	560,210	677,053	693,979	711,329	729,112	3,371,683	674,337
System renewal	261,793	295,149	459,279	476,214	301,272	1,793,707	358,741
System Service	-	-	-	-	-	-	-
General Plant	491,500	457,000	202,000	177,000	337,000	1,664,500	332,900
Total Expenditure	1,313,503	1,429,202	1,355,258	1,364,543	1,367,384	6,829,890	1,365,978
Percentage Change from Previous Year		9%	-5%	1%	0%		1%
Percentage Change Not Including 2017			-5%	1%	0%		-1%

Note: the table above reflects dollars for the year, using an escalation year-over-year of 1.5% (excluding 2017 and reflecting CPI). In addition, a burden rate of 11% is added to adjust to the cost to include related corporate overheads and other allocations.

Refer to Appendix F for an additional detailed Capital Expenditure Summary by category.

5.4.4.2 2012 Actual Vs 2013 Actual Capital Expenditure Variances

Category	2012	2013	Variance from 2012 Actual
	Actual	Actual	Variance
System Access	$ 566,654	$ 1,316,405	$ 749,751
System Renewal	$ 206,859	$ 109,702	-$ 97,157
System Service	$ -	$ -	$ -
General Plant	$ 11,101	$ 52,779	$ 41,678
Total Expenditure	$ 784,614	$ 1,478,886	$ 694,272

System Access

The major factors behind the variance within the System Access category can be represented by a significant plant relocation project in 2013 related to distribution system expansion of $620,528. Another main driver behind the variance is represented by a significant increase in projects from 2011 to 2012 related to distribution system expansions for new customers of $129,223. The majority of capital expenditures contained with the system access category are recovered through capital contributions.

System Renewal

This variance is primarily due to a significant plant relocation project so the renewal program was rolled back due to lack of resources as they were allocated to the relocation project.

General Plant

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

5.4.4.3 2013 Actual Vs 2014 Actual Capital Expenditure Variances

Category	2013	2014	Variance from 2013 Actual
	Actual	Actual	Variance
System Access	$ 1,316,405	$ 734,364	-$ 582,041
System Renewal	$ 109,702	$ 133,322	$ 23,620
System Service			$ -

General Plant	$ 52,779	$ 118,492	$ 65,713
Total Expenditure	$ 1,478,886	$ 986,178	-$ 492,708

System Access

The main driver behind the variances within the System Access category are due to the a decrease in projects related to distribution system relocations to accommodate work due to municipal and provincial land owners infrastructure projects accounting for a variance of ($530,584) and an decrease in projects for the expansions and servicing of new residential developments amounting to a variance of ($68,520). The majority of capital expenditures contained with the system access category are recovered through capital contributions.

System Renewal

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

General Plant

The main driver behind the variances within the General Plant Overall category for the 2013 and 2014 year with the primary variance contained in Fleet with the purchase of an underground service truck for $70,712 and a pole trailer for $21,756.

5.4.4.4 2014 Actual Vs 2015 Actual Capital Expenditure Variances

Category	2014	2015	Variance from 2014 Actual
	Actual	Actual	Variance
System Access	$ 734,364	$ 793,896	$ 59,532
System Renewal	$ 133,322	$ 494,469	$ 361,147
System Service			$ -
General Plant	$ 118,492	$ 39,655	-$ 78,837
Total Expenditure	$ 986,178	$ 1,328,020	$ 341,842

System Access

The main driver behind the variances within the System Access category are due to the a decrease in projects related to distribution system relocations to accommodate work due to municipal and provincial land owners infrastructure projects accounting for a variance of ($89,944) and an increase in projects for the expansions and servicing of new residential developments amounting to a variance of $149,476. The majority of capital expenditures contained with the system access category are recovered through capital contributions.

System Renewal

The main contributors to the variance in capital expenditures for system renewal projects between 2014 and 2015 can be linked to an increase in spending on the major sustainment programs as a result of the reduced in 2013 and 2014 to get the program back on track.

General Plant

Major variances in spending within the General Plant sector between 2014 and 2015 can be accounted for based on no fleet purchases in 2015 and a ($64,831) reduction in IT spending.

5.4.4.5 2015 Actual Vs 2016 Forecast Capital Expenditure Variances

Category	2015	2016	Variance from 2015 Actual
	Actual	Budget	Variance
System Access	$ 793,896	$ 1,068,807	$ 274,911
System Renewal	$ 494,469	$ 262,193	-$ 232,276
System Service		$ -	$ -
General Plant	$ 39,655	$ 148,500	$ 108,845
Total Expenditure	$ 1,328,020	$ 1,479,500	$ 151,480

System Access

The main driver behind the variances within the System Access category are due to an increase in projects for the expansions and servicing of new residential developments amounting to a variance of $274,911. The majority of capital expenditures contained with the system access category are recovered through capital contributions.

System Renewal

This variance is primarily due to a significant System Access project increase so the renewal program was rolled back due to lack of resources as they were allocated to the access projects.

General Plant

Major variances in spending within the General Plant sector between 2015 and 2016 can be accounted for based on the following factors:

- Increase in Building and Fixture spending of $8,089 for exterior yard lighting;
- Increase in Office Equipment and Major Tools spending of $52,893 for office workstation reconfiguration, additional work station and replacement of all office flooring;
- $22,000 increase in Fleet to purchase a reel trailer;
- And IT spending increase of $25,863 for replacement of SQL server.

5.4.4.6 2016 Forecast Vs 2017 Forecast Capital Expenditure Variances

Category	2016	2017	Variance from 2016 Actual
	Budget	Plan	Variance
System Access	$ 1,068,807	$ 560,210	-$ 508,597
System Renewal	$ 262,193	$ 261,793	-$ 400
System Service	$ -	$ -	$ -
General Plant	$ 148,500	$ 491,500	$ 343,000
Total Expenditure	$ 1,479,500	$ 1,313,503	-$ 165,997

System Access

The variance in the 2016 budget to the 2017 budget for system access work is associated with an anticipated decrease in residential subdivision servicing due to a surplus of serviced lots becoming available in in Q4 of 2016.

System Renewal

Overall capital expenditures are consistent in the general plant category for the 2016 and 2017 year.

General Plant

The variance in costs between 2016 and 2017 within the General Plant category can be attributed to:

- A 2017 Fleet purchase increase of $423,000 to replace a 1995 RBD, and;
- IT purchase reductions of ($26,500).

5.4.4.7 2017 Forecast Vs 2018 Forecast Capital Expenditure Variances

Category	2017	2018	Variance from 2017 Actual
	Plan	Plan	Variance
System Access	$ 560,210	$ 677,053	$ 116,843
System Renewal	$ 261,793	$ 295,149	$ 33,356
System Service	$ -	$ -	$ -
General Plant	$ 491,500	$ 457,000	-$ 34,500
Total Expenditure	$ 1,313,503	$ 1,429,202	$ 115,699

System Access

The variance in the 2017 budget to the 2018 budget for system access work is associated with an anticipated increase in residential subdivision servicing.

System Renewal

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

General Plant

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

5.4.4.8 2018 Forecast Vs 2019 Forecast Capital Expenditure Variances

Category	2018	2019	Variance from 2018 Actual
	Plan	Plan	Variance
System Access	$ 677,053	$ 693,979	$ 16,926
System Renewal	$ 295,149	$ 459,279	$ 164,130
System Service	$ -	$ -	$ -
General Plant	$ 457,000	$ 202,000	-$ 255,000
Total Expenditure	$ 1,429,202	$ 1,355,258	-$ 73,944

System Access

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

System Renewal

The main contributors to the variance in capital expenditures for system renewal projects between 2018 and 2019 can be linked to an increase in spending on the major sustainment programs as a result of the reduced fleet costs ($245,000) in the General Plant category. The renewal program will be focusing on a pole replacement program which will complement the the purchase of the new RBD in 2017 and the mini RBD in 2019.

General Plant

The variance in costs between 2018 and 2019 within the General Plant category can be attributed to:

- A 2017 Fleet purchase decrease of ($245,000);
- Building and Fixture purchase reductions of ($8,000)'
- IT purchase reductions of ($2,000).

5.4.4.9 2019 Forecast Vs 2020 Forecast Capital Expenditure Variances

Category	2019	2020	Variance from 2019 Actual
	Plan	Plan	Variance
System Access	$ 693,979	$ 711,329	$ 17,350
System Renewal	$ 459,279	$ 476,214	$ 16,935
System Service	$ -	$ -	$ -
General Plant	$ 202,000	$ 177,000	-$ 25,000
Total Expenditure	$ 1,355,258	$ 1,364,543	$ 9,285

System Access

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

System Renewal

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the

Board.

General Plant

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the

Board.

5.4.4.10 2020 Forecast Vs 2021 Forecast Capital Expenditure Variances

Category	2020	2021	Variance from 2020 Actual
	Plan	Plan	Variance
System Access	$ 711,329	$ 729,112	$ 17,783
System Renewal	$ 476,214	$ 301,272	-$ 174,942
System Service	$ -	$ -	$ -
General Plant	$ 177,000	$ 337,000	$ 160,000
Total Expenditure	$ 1,364,543	$ 1,367,384	$ 2,841

System Access

The variance is below the materiality threshold; however the Table in 5.4.5.1 provides additional information on each of the specific projects/activities for the benefit of the Board.

System Renewal

The main contributors to the variance in capital expenditures for system renewal projects between 2020 and 2021 can be linked to an increase in spending in the General Plant category to replace a single bucket truck as a result of the increased fleet costs $280,000 the budget was reduced for the sustainment program.

General Plant

The variance in costs between 2020 and 2021 within the General Plant category can be

attributed to:

- A Fleet purchase increase of $280,000 to replace a single bucket;
- Building and Fixture purchase reductions of ($170,000)'
- IT purchase increase of $50,000.

5.4.5. Justifying Capital Expenditures

5.4.5.1 Overall Plan

The make-up of **E.L.K.'s** overall capital plan consists of many converging inputs that drive and influence the direction of the capital expenditures. The following information addresses the allocation of funds in order to ensure overall objectives are met.

Comparative Expenditures by Category Over the Historical Period

Comparative expenditures over the **Historical Period** and the **Forecast Period** are shown in the Tables below.

Category	Historical Period					
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge Year Budget	Total
System Access	$ 566,654	$ 1,316,405	$ 734,364	$ 793,896	$ 1,068,807	**$4,480,126.00**
System Renewal	$ 206,859	$ 109,702	$ 133,322	$ 494,469	$ 262,193	**$1,206,545.00**
System Service					$ -	
General Plant	$ 11,101	$ 52,779	$ 118,492	$ 39,655	$ 148,500	**$370,527.00**
Total Expenditure	$ 784,614	$ 1,478,886	$ 986,178	$ 1,328,020	$ 1,479,500	**$6,057,198.00**

Category	Forecast Period					
	2017 Test Year Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	Total
System Access	$ 560,210	$ 677,053	$ 693,979	$ 711,329	$ 729,112	$3,371,683.00
System Renewal	$ 261,793	$ 295,149	$ 459,279	$ 476,214	$ 301,272	$1,793,707.00
System Service	$ -	$ -	$ -	$ -	$ -	
General Plant	$ 491,500	$ 457,000	$ 202,000	$ 177,000	$ 337,000	$1,664,500.00
Total Expenditure	$ 1,313,503	$ 1,429,202	$ 1,355,258	$ 1,364,543	$ 1,367,384	$6,829,890.00

Forecast Impact of System Investment on System O&M Costs

While it is difficult to quantify specific system investments that directly impact system **O&M** costs, in general there are a number of activities within the capital program that tend to have a positive influence on the reduction of future system **O&M** related expenditures. In particular, **E.L.K.** is addressing an underground project such as Underground Rejuvenation – Augustine which is the replacement of direct buried underground conductors and live front transformers which have reduced system **O&M** costs arising due to cable and transformer failures. Renewal of these underground assets is anticipated to further reduce future **O&M** costs related to these assets although not in a readily quantifiable way.

A list of examples is provided below to help demonstrate commitment and consideration taken on the reduction of **O&M** related costs during the asset management and capital expenditure planning process.

- The proactive replacement of underground primary cables and live front transformers at or near TUL will reduce costs associated with outage response and reactive replacement. Historically this has had the single most impact on the SAIDI CAIDI numbers outside of loss of supply.

- Proactive pole replacement prior to failure of the in-service pole or associated components will reduce costs associated with outage response and reactive replacement.

- The replacement programs allow for replacement of legacy units that can no longer be economically maintained. The type of replacement units now available results in a much less labour-intensive program of inspection and corrective maintenance as required, as opposed to the periodic preventive maintenance required for legacy assets.

- Standardized Designs save money both by reducing the engineering costs of the project as well as reducing installation costs and material stock costs. E.L.K. is part of the Utilities Standard Forum ("USF") group to standardize installation drawings for use in the projects in this DSP.
- Devices such as portable computing devices and the use of web-based applications to replace paper-based data collection and processes will improve operational efficiency, reduce the possibility of data translation errors, and provide cost savings at the time of collection, and the time of data entry. Improved data is used to optimize the planning process for future projects.

Drivers of Investments

As overviewed in Section 5.1.1 and Table E.L.K.'s DS Planning Drivers the following information provides a summary of the seven key drivers **E.L.K.** has established for all capital expenditures within the four major categories. Outlined in the Table below is information that categorizes the capital expenditures for the forecast period in relation to each driver. Projects with multiple drivers are categorized by the primary driver.

		2012	2013	2014	2015	2016 Bridge Year	2017 Test Year	2018	2019	2020	2021
System Access											
Driver	Program/Activity										
Customer needs	**Expansions for New Residential Subdivisions** **New Residential Service Connections** **Apartment, Commercial, Industrial** **Customer Connections** **Distribution System Modifications / Expansions for Customers**	$566,654	$695,877	$644,420	$793,896	$1,068,807	$560,210	$677,053	$693,979	$711,329	$729,112
System Relocations Property Development	**System Relocations Property Development**		$620,528	$89,944							
Sub-Total		$566,654	$1,316,405	$734,364	$793,896	$1,068,807	$560,210	$677,053	$693,979	$711,329	$729,112
System Renewal											
End of Life service	**Distribution System**	$206,859	$109,702	$133,322	$494,469	$262,193	$261,793	$295,149	$459,279	$476,214	$301,272

Assets	**Replacement** **Distribution System Transformer** **replacement upgrades**										
Sub-Total		$206,859	$109,702	$133,322	$494,469	$262,193	$261,793	$295,149	$459,279	$476,214	$301,272
System Service											
Capacity Upgrade	**Distribution System Feeder Infrastructure**										
Sub-Total											
General Plant											
Building / Fixtures	**Building / Fixtures**	$3,000	$2,300	$516	$7,911	$16,000	$2,000	$10,000	$2,000	$172,000	$2,000
Equipment and Tools	**Office Equipment** **Major Tools**	$1,601	$15,400	$916	$4,107	$57,000	$16,000				
Fleet / Rolling Stock	**Fleet / Rolling Stock**	$6,500	$30,000	$21,756		$22,000	$445,000	$445,000	$200,000		$280,000
IT Capital	**IT Capital**	$6,500	$5,079	$92,468	$27,637	$53,500	$28,500	$2,000		$5,000	$55,000
Sub-Total		$11,101	$52,779	$118,492	$39,655	$148,500	$491,500	$457,000	$202,000	$ 177,000	$337,000
Total all Categories		$784,614	$1,478,886	$986,178	$1,328,020	$1,479,500	$1,313,503	$1,429,202	$1,355,258	$1,364,543	$1,367,384

System Access

Customer Service Requests

Capital expenditures for projects related to customer service request are summarized as follows:

1. **Apartment, Commercial, Industrial Customer Connections –** These are projects that are essential in order to meet the demand of new and existing customers connected or requesting connection to **E.L.K.'s** distribution system. Supply is at a primary voltage level, or through a utility transformer providing secondary voltage to a single building or group of buildings. The distribution system to individual customers within the building(s) is not part of utility's assets. Projects also include any upgrades to existing customer services. A portion of this cost is recovered through capital contributions.
2. **Distribution System Modification and Customer Expansion –** These projects relate to additions or modifications to the distribution system to accommodate new commercial and industrial development. A portion of this cost is recovered through capital contributions. Capital expenditures within this sector vary year to year and are solely based on customer driven initiatives.
3. **New Residential Subdivision Expansion** – These projects are related to expansion for new residential developments.. Work within this section covers the installation of new underground distribution system facilities to accommodate new residential developments. A large portion of the cost is recoverable through capital contributions by the developer based on an economic evaluation model.
4. **New Residential Service Connection** - Funds in this category are allocated in order to provide electrical service installations to residential subdivisions as well as in-fill and small commercial properties. **E.L.K.** bases its budgeted service installations on information from past history. Similar to residential development expansions, a significant portion of this cost is recovered through capital contributions based on service fees.
5. **System Relocations Property Development -** Line relocation projects are required in order to accommodate projects related to road work by the municipalities and projects associated with the **MTO**. Projects in this category are driven by other authorities and are difficult to predict. A portion of the capital costs are recovered through capital contributions based on a cost sharing agreement, when available, between the parties involved.

System Renewal

End of life service assets

Furthermore, depending on the asset category and impact of **TUL** failure, some assets, such as pole top transformers, are replaced reactively and are run to failure. In some cases, assets that are normally run to failure are replaced proactively if a known condition exists, e.g. proximity to major roads or continuous high loading level, which causes premature ageing.

System Renewal projects are required in order to maintain a safe and reliable distribution system by replacing end of life facilities so that the system can operate as designed. The purpose of maintaining the long-term and short-term functionality of assets is to ensure **AM** Objectives such as public and employee safety are met to comply with regulatory requirements

and to provide a high level of reliability to our customers that falls in line with **E.L.K.'s** objectives and policies

Electrical distribution assets are subject to deterioration that will eventually impede their ability to function as originally designed. Asset deterioration depends on factors such as age, environment, utilization, weather and maintenance practices. As assets start to deteriorate, performance and reliability begin to fade, resulting in an increase to risk of failure that could lead to potential safety hazards to the public and to our employees.

The identification and prioritization of projects is driven by historical performance, design and functional obsolescence, regulatory requirements, new standards, flawed design or substandard manufacturing.

System Service

Capacity Upgrade

Capital expenditures for projects related to capacity constraints are summarized as follows:

1. **Distribution System Feeder Infrastructure** – These projects are required to provide system capacity for new residential, commercial and industrial developments. Projects within this category include new pole line builds and feeders for station egress. Utilizing outputs from the overall system capacity study, an individual assessment of various areas within each load centre is conducted based on operational and customer specific requirements in order to operate the distribution system.

General Plant

Building / Fixtures

Investments in this category are identified and driven by inspections and monitoring of building asset condition through expert opinion and observing and noting repair issues throughout the administration building.

Equipment and Tools

Capital expenditures for projects related to equipment and tools are summarized as follows:

1. **Office Equipment / Graphics** - capital expenditures related to office equipment and graphics are driven based on specific requirements to perform day to day functions within the office environment.

2. **Major Tools** - capital expenditures for major tools are driven based on specific operational needs. **E.L.K.** continually investigates the requirement to upgrade outdated tools and equipment

and searches for newer more effective technology, combined with the most ergonomic way of accomplishing a task. Historic costs for major tools are consistent with forecasted expenditures.

Fleet / Rolling Stock

E.L.K. utilizes a levelized are strategic approach to managing assets within the fleet pool as outlined in Appendix G. Investments are based on a number of criteria which include: age of the vehicle, odometer reading, maintenance costs, annual vehicle test results (includes stress/electrical testing), practicality of existing vehicle including new technology available, changing emissions, weight, and road safety regulations obsoleting some existing units, and crew/other department needs. Vehicles are replaced based on an established replacement schedule that takes into account the above mentioned factors.

IT Capital

Capital investments in **IS** and **IT** infrastructure projects are selected and prioritized in order to maintain effective and efficient business processes, ensure support for disaster and pandemic business continuity and to maintain integrated and reliable enterprise solutions. Selection of projects is based on identified need in the organization, best practices in network and security systems and expert knowledge.

Information Related to the Distributor's System Capability Assessment

As outlined in Sections 5.4.3 and 5.4.1.1, **E.L.K.'s** distribution system is capable of meeting future demands with respect to load and generation needs. **E.L.K.** has not included any investments for the accommodation of **REG** type projects in the **DSP**. **E.L.K.'s** overall distribution system capacity does not require any increases within the forecast period of 2017-2021.

5.4.5.2 Material Investments

The following section details information related to projects/activities that meet **E.L.K.'s** material threshold of $1,440,897 for the 2017 year. A list of these projects is presented below in the Table below and detailed information, including the evaluation criteria and category specific information for each project/activity can be found in Appendix H.

E.L.K. Energy Inc.

2017 Capital Project Summary List

Category	Project Name	Total Expenditure	Priority Ranking within Category
System Access	Forecasted Access projects.	$ 501,210.00	1
System Renewal	Underground Rejuvenation _Augustine	$ $261,793	1
System Service			
General Plant	Fleet/Rolling Stock - Truck 303 Replacement	$ 445,000.00	1

APPENDIX A - E.L.K.'S SERVICE TERRITORY

APPENDIX B - DETAILED BREAKDPOWN OF THE MONTHLY RATES & CHARGES

RESIDENTIAL SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	13.33
Rate Rider for Smart Metering Entity Charge - effective until October 31, 2018	$	0.79
Distribution Volumetric Rate	$/kWh	0.0062
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kWh	(0.0055)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		
Applicable only for Non-RPP Customers	$/kWh	0.0082
Low Voltage Service Rate	$/kWh	0.0012
Retail Transmission Rate - Network Service Rate	$/kWh	0.0060
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0042

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$/kWh	0.25

ONTARIO ELECTRICITY SUPPORT PROGRAM RECIPIENTS

MONTHLY RATES AND CHARGES

Class A

(a) account-holders with a household income of $28,000 or less living in a household of one or two persons;
(b) account-holders with a household income of between $28,001 and $39,000 living in a household of three persons;
(c) account-holders with a household income of between $39,001 and $48,000 living in a household of five persons; and
(d) account-holders with a household income of between $48,001 and $52,000 living in a household of seven or more persons;
but does not include account-holders in Class E.

OESP Credit	$	(30.00)

Class B

(a) account-holders with a household income of $28,000 or less living in a household of three persons;
(b) account-holders with a household income of between $28,001 and $39,000 living in a household of four persons; (c) account-holders with a household income of between $39,001 and $48,000 living in a household of six persons; but does not include account-holders in Class F.

OESP Credit	$	(34.00)

Class C

(a) account-holders with a household income of $28,000 or less living in a household of four persons;
(b) account-holders with a household income of between $28,001 and $39,000 living in a household of five persons;
(c) account-holders with a household income of between $39,001 and $48,000 living in a household of seven or more persons;
(d) but does not include account-holders in Class G.

OESP Credit	$	(38.00)

Class D

(a) account-holders with a household income of $28,000 or less living in a household of five persons; and
(b) account-holders with a household income of between $28,001 and $39,000 living in a household of six persons;
but does not include account-holders in Class H. OESP Credit

OESP Credit	$	(42.00)

Class E

Class E comprises account-holders with a household income and household size described under Class A who also meet any of the following conditions:

(a) the dwelling to which the account relates is heated primarily by electricity;
(b) the account-holder or any member of the account-holder's household is an Aboriginal person; or
(c) the account-holder or any member of the account-holder's household regularly uses, for medical purposes, an electricity-intensive medical device at the dwelling to which the account relates.

OESP Credit	$	(45.00)

Class F

(a) account-holders with a household income of $28,000 or less living in a household of six or more persons;
(b) account-holders with a household income of between $28,001 and $39,000 living in a household of seven or more persons; or
(c) account-holders with a household income and household size described under Class B who also meet any of the following conditions:
    i the dwelling to which the account relates is heated primarily by electricity;
    ii the account-holder or any member of the account-holder's household is an Aboriginal person; or

iii the account-holder or any member of the account-holder's household regularly uses, for medical purposes, an electricity-intensive medical device at the dwelling to which the account relates

OESP Credit	$	(50.00)

Class G

Class G comprises account-holders with a household income and household size described under Class C who also meet any of the following conditions:

(a) the dwelling to which the account relates is heated primarily by electricity;
(b) the account-holder or any member of the account-holder's household is an Aboriginal person; or
(c) the account-holder or any member of the account-holder's household regularly uses, for medical purposes, an electricity-intensive medical device at the dwelling to which the account relates.

OESP Credit	$	(55.00)

Class H

Class H comprises account-holders with a household income and household size described under Class D who also meet any of the following conditions:

(a) the dwelling to which the account relates is heated primarily by electricity;
(b) the account-holder or any member of the account-holder's household is an Aboriginal person ; or
(c) the account-holder or any member of the account-holder's household regularly uses, for medical purposes, an electricity-intensive medical device at the dwelling to which the account relates.

OESP Credit	$	(60.00)

Class I

Class I comprises account-holders with a household income and household size described under paragraphs (a) or (b) of Class F who also meet any of the following conditions:

(a) the dwelling to which the account relates is heated primarily by electricity;
(b) the account-holder or any member of the account-holder's household is an Aboriginal person; or
(c) the account-holder or any member of the account-holder's household regularly uses, for medical purposes, an electricity-intensive medical device at the dwelling to which the account relates.

OESP Credit	$	(75.00)

GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	15.77
Rate Rider for Smart Metering Entity Charge - effective until October 31, 2018	$	0.79
Distribution Volumetric Rate	$/kWh	0.0050
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kWh	(0.0054)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		
Applicable only for Non-RPP Customers	$/kWh	0.0082

Low Voltage Service Rate	$/kWh	0.0011
Retail Transmission Rate - Network Service Rate	$/kWh	0.0053
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0037

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge (per connection)	$	6.41
Distribution Volumetric Rate	$/kWh	0.0019
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kWh	(0.0048)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		
Applicable only for Non-RPP Customers	$/kWh	0.0082
Low Voltage Service Rate	$/kWh	0.0011
Retail Transmission Rate - Network Service Rate	$/kWh	0.0053
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0037

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

SENTINEL LIGHTING SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge (per connection)	$	3.13
Distribution Volumetric Rate	$/kW	5.8898
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kW	(1.8474)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		

Applicable only for Non-RPP Customers	$/kW	3.1271
Low Voltage Service Rate	$/kW	0.3421
Retail Transmission Rate - Network Service Rate	$/kW	1.6824
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kW	1.1934

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

STREET LIGHTING SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge (per connection)	$	1.17
Distribution Volumetric Rate	$/kW	11.4381
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kW	(1.7183)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		
Applicable only for Non-RPP Customers	$/kW	2.9089
Low Voltage Service Rate	$/kW	0.3351
Retail Transmission Rate - Network Service Rate	$/kW	1.6740
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kW	1.1689

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	1,849.67
Distribution Volumetric Rate	$/kW	0.2751
Rate Rider for Disposition of Deferral/Variance Accounts (2016) - effective until April 30, 2017	$/kW	(2.1739)
Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2017		
Applicable only for Non-RPP Customers	$/kW	3.6847

Low Voltage Service Rate	$/kW	0.4332
Retail Transmission Rate - Network Service Rate	$/kW	2.2195
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kW	1.5110

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate	$/kWh	0.0036
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0013
Ontario Electricity Support Program Charge (OESP)	$/kWh	0.0011
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

MICROFIT SERVICE CLASSIFICATION

MONTHLY RATES AND CHARGES - Delivery Component

Service Charges	$	0.25

ALLOWANCES

Transformer Allowance for Ownership - per kW of billing demand/month	Kw	(0.60)
Primary Metering Allowance for transformer losses - applied to measured demand and energy	%	(1.00)

SPECIFIC SERVICE CHARGES

Customer Administration

Arrears certificate	$	15.00
Statement of account	$	15.00
Pulling post dated cheques	$	15.00
Duplicate invoices for previous billing	$	15.00
Request for other billing information	$	15.00
Easement letter	$	15.00
Income tax letter	$	15.00
Notification charge	$	15.00
Account history	$	15.00
Credit reference/credit check (plus credit agency costs)	$	15.00
Returned cheque (plus bank charges)	$	15.00
Charge to certify cheque	$	15.00
Legal letter charge	$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	$	30.00

Non-Payment of Account

Late payment - per month	%	1.50
Late payment - per annum	%	19.56
Collection of account charge - no disconnection	$	30.00
Collection of account charge - no disconnection - after regular hours	$	165.00
Disconnect/reconnect at meter - during regular hours	$	65.00
Disconnect/reconnect at meter - after regular hours	$	185.00
Disconnect/reconnect at pole - during regular hours	$	185.00
Disconnect/reconnect at pole - after regular hours	$	415.00
Install/remove load control device - during regular hours	$	65.00
Install/remove load control device - after regular hours	$	185.00

Other

Special meter reads	$	30.00
Service call - customer-owned equipment	$	30.00
Service call - after regular hours	$	165.00
Temporary service - install & remove - overhead - no transformer	$	500.00
Temporary service - install & remove - underground - no transformer	$	300.00
Temporary service - install & remove - overhead - with transformer	$	1,000.00
Specific charge for access to the power poles - $/pole/year (with the exception of wireless attachments)	$	22.35

RETAIL SERVICE CHARGES (if applicable)

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer	$	100.00
Monthly Fixed Charge, per retailer	$	20.00
Monthly Variable Charge, per customer, per retailer	$/cust.	0.50
Distributor-consolidated billing monthly charge, per customer, per retailer	$/cust.	0.30
Retailer-consolidated billing monthly credit, per customer, per retailer	$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	$	0.25
Processing fee, per request, applied to the requesting party	$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail Settlement Code directly to retailers and customers, if not delivered electronically through the Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	$	no charge
More than twice a year, per request (plus incremental delivery costs)	$	2.00

LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor - Secondary Metered Customer < 5,000 Kw	1.0810
Total Loss Factor - Primary Metered Customer < 5,000 kW	1.0703

APPENDIX C - TOTAL BILLED KW/KWH PER CUSTOMER CLASS

By Class	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Weather Normal	2017 Weather Normal
Residential											
Customers	9,581	9,629	9,741	9,871	9,932	10,008	10,083	10,154	10,218	10,302	10,386
kWh	93,919,803	91,598,924	89,480,942	94,261,084	91,775,630	90,281,488	88,791,227	89,130,958	90,749,018	92,479,880	92,079,767
GS<50											
Customers	1,090	1,096	1,122	1,167	1,194	1,205	1,208	1,215	1,221	1,237	1,253
kWh	27,486,362	27,305,136	27,046,725	27,843,390	30,635,475	29,408,826	28,921,439	29,746,584	28,622,003	29,223,413	29,137,274
GS>50											
Customers	109	110	113	108	95	89	89	90	93	93	93
kWh	70,538,573	71,763,589	63,032,184	65,599,183	64,324,224	60,934,472	59,427,522	57,346,380	62,304,427	62,116,820	60,741,788
kW	218,225	209,583	207,445	200,283	195,461	186,874	181,893	186,326	195,328	192,808	188,540
Streetlights											
Customers	2,754	2,763	2,772	2,781	2,790	2,799	2,808	2,817	2,826	2,826	2,826
kWh	2,409,618	2,296,059	2,082,393	2,409,951	2,245,234	2,346,377	2,512,898	2,302,093	2,368,289	2,374,164	2,380,054
kW	6,521	6,487	5,754	6,759	5,760	6,354	6,799	6,450	6,398	6,460	6,476
Unmetered Scattered Load											
Connections	35	34	34	34	33	32	32	31	31	31	31
kWh	428,118	293,947	285,456	275,513	201,696	262,229	260,597	259,677	259,607	262,207	264,832
Sentinel Lights											
Connections	83	61	39	18	7	7	7	7	7	7	7
kWh	182,802	93,339	50,856	18,863	5,962	5,962	5,962	5,962	5,962	5,962	5,962
kW	498	265	143	52	14	14	14	14	14	14	14
Embedded Distributor											
Connections	4	4	4	4	4	4	4	4	4	4	4
kWh	62,597,839	54,864,777	51,097,775	48,094,376	52,740,415	50,111,691	49,811,242	52,151,234	48,193,212	46,643,291	45,143,217
kW	115,967	112,771	109,952	107,517	113,911	111,194	110,635	115,371	105,467	100,002	96,786
Total of Above											
Customer/Connections	13,656	13,697	13,823	13,981	14,054	14,143	14,229	14,317	14,399	14,499	14,600
kWh	257,563,115	248,215,770	233,076,332	238,502,360	241,928,636	233,351,046	229,730,887	230,942,888	232,502,517	233,105,737	229,752,894
kW from applicable classes	341,211	329,106	323,294	314,610	315,146	304,435	299,341	308,160	307,207	299,284	291,816

APPENDIX D – HONI AND IESO PLANNING LETTERS

HONI REGIONAL PLANNING LETTER

Hydro One Networks Inc.
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Toronto, ON, M5G 2P5
www.HydroOne.com

Tel: (416) 345-5420
Fax: (416) 345-4141
ajay.garg@HydroOne.com

August 29, 2016

Norm MacAulay
Operations Manager
E.L.K. Energy Inc.
172 Forest Avenue
Essex, ON N8M 3E4

Dear Mr. MacAulay,

Subject: Regional Planning Status

In reference to your request for a regional planning status letter, please note that E.L.K Energy belongs to the Windsor-Essex Region which is in Group 1. A map showing details about the 21 regions and a list of Local Distribution Companies (LDCs) in each region is attached in Appendix A and B, respectively.

A summary of the regional planning status for the region is outlined below.

Windsor-Essex Region

Planning activities for the Windsor-Essex Region were already underway before the new regional planning process was introduced. The Needs Assessment (NA) and Scope Assessment (SA) phases were deemed to be complete and the planning status for the region was considered to be in the Integrated Regional Resource Plan (IRRP) phase of the regional planning process. The IRRP for the region was completed in April 2015, and the Regional Infrastructure Plan (RIP) report in December 2015. During the regional planning process, the following needs were identified that are being addressed by wires solution in the region:

- Supply Interruptions in the J3E-J4E Subsystem;
- Additional Supply Capacity requirement in the Kingsville-Leamington Area.

The above needs will be addressed by the new Supply to Essex County Transmission Reinforcement (SECTR) project as an integrated solution for both needs. The SECTR project consists of:

- Installation of a new 230/27.6 kV transformer station in the Municipality of Leamington;
- Construction of a 13 km double-circuit 230 kV line to connect the existing C21J/C22J circuits to the new transformer station.

Sufficient load is also planned to be transferred to the new TS from Kingsville TS to provide relief to the station. The estimated completion date for the SECTR project, as per the RIP report, is June 2018. The cost allocation methodology for this project is pending Ontario Energy Board's review and approval.

In addition, sustainment work is also planned to replace end-of-life transformers at Kingsville TS and Keith TS. There are no direct cost implications for E.L.K. as a result of these projects.

Hydro One looks forward to continue working with E.L.K. in addressing your needs and executing the new regional planning process.

Please feel free to contact me if you have any questions.

Sincerely,

Ajay Garg, Manager - Regional Planning Coordination
Hydro One Networks Inc.

Appendix A: Map of Ontario's Planning Regions

Northern Ontario

Southern Ontario

Greater Toronto Area (GTA)

Group 1	Group 2	Group 3
Burlington to Nanticoke	East Lake Superior	Chatham/Lambton/Sarnia
Greater Ottawa	London area	Greater Bruce/Huron
GTA East	Peterborough to Kingston	Niagara
GTA North	South Georgian Bay/Muskoka	North of Moosonee
GTA West	Sudbury/Algoma	North/East of Sudbury
Kitchener- Waterloo-Cambridge-Guelph ("KWCG")		Renfrew
Metro Toronto		St. Lawrence
Northwest Ontario		
Windsor-Essex		

Appendix B: List of LDCs for Each Region

[Hydro One as Upstream Transmitter]

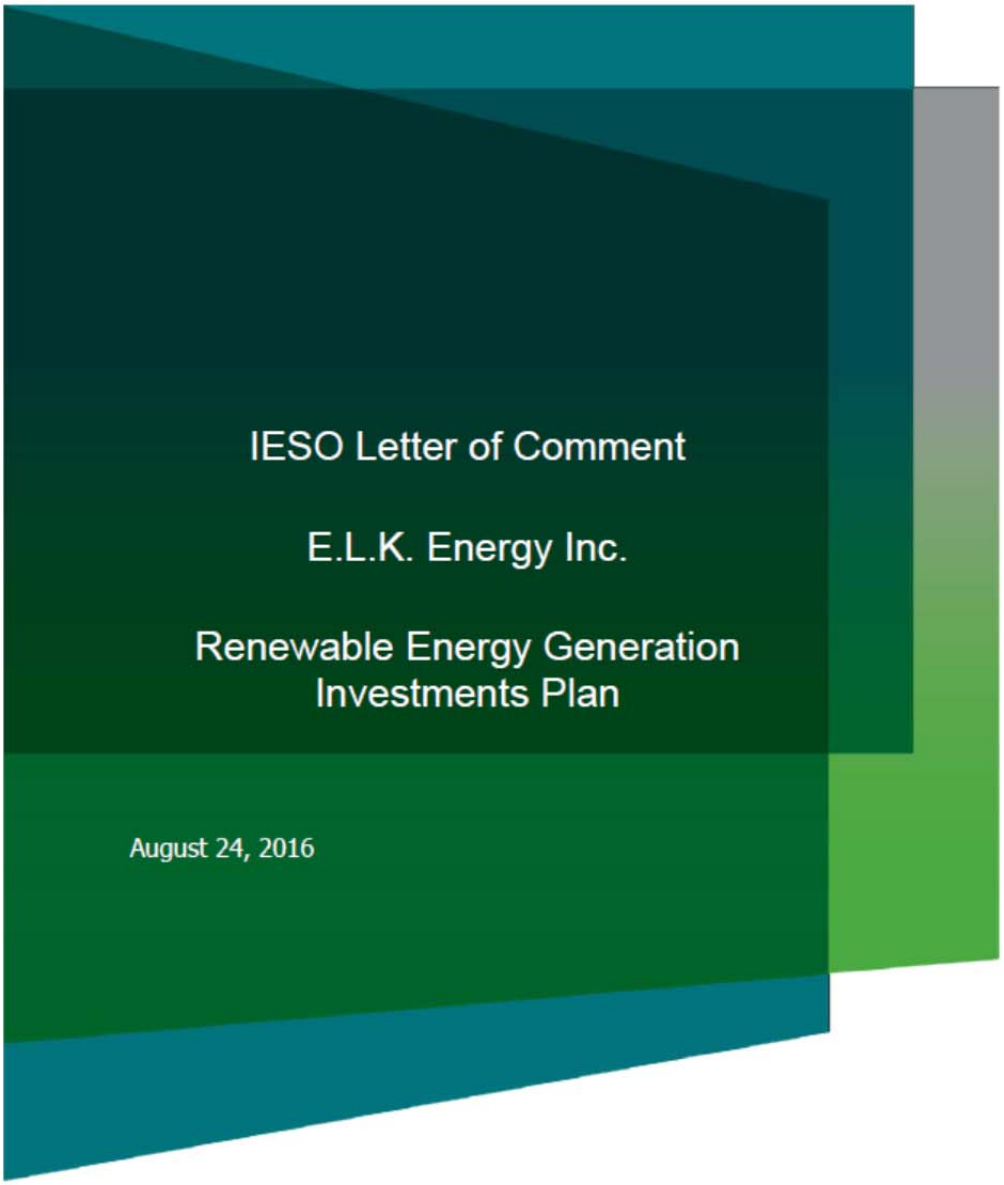
Region	LDCs
1. Burlington to Nanticoke	• Brant County Power Inc. • Brantford Power Inc. • Burlington Hydro Inc. • Haldimand County Hydro Inc. • Horizon Utilities Corporation • Hydro One Networks Inc. • Norfolk Power Distribution Inc. • Oakville Hydro Electricity Distribution Inc.
2. Greater Ottawa	• Hydro 2000 Inc. • Hydro Hawkesbury Inc. • Hydro One Networks Inc. • Hydro Ottawa Limited • Ottawa River Power Corporation • Renfrew Hydro Inc.
3. GTA North	• Enersource Hydro Mississauga Inc. • Hydro One Brampton Networks Inc. • Hydro One Networks Inc. • Newmarket-Tay Power Distribution Ltd. • PowerStream Inc. • PowerStream Inc. [Barrie] • Toronto Hydro Electric System Limited • Veridian Connections Inc.
4. GTA West	• Burlington Hydro Inc. • Enersource Hydro Mississauga Inc. • Halton Hills Hydro Inc. • Hydro One Brampton Networks Inc. • Hydro One Networks Inc. • Milton Hydro Distribution Inc. • Oakville Hydro Electricity Distribution Inc.

5. Kitchener- Waterloo-Cambridge-Guelph ("KWCG")	• Cambridge and North Dumfries Hydro Inc. • Centre Wellington Hydro Ltd. • Guelph Hydro Electric System - Rockwood Division • Guelph Hydro Electric Systems Inc. • Halton Hills Hydro Inc. • Hydro One Networks Inc. • Kitchener-Wilmot Hydro Inc. • Milton Hydro Distribution Inc. • Waterloo North Hydro Inc. • Wellington North Power Inc.
6. Metro Toronto	• Enersource Hydro Mississauga Inc. • Hydro One Networks Inc. • PowerStream Inc. • Toronto Hydro Electric System Limited • Veridian Connections Inc.
7. Northwest Ontario	• Atikokan Hydro Inc. • Chapleau Public Utilities Corporation • Fort Frances Power Corporation • Hydro One Networks Inc. • Kenora Hydro Electric Corporation Ltd. • Sioux Lookout Hydro Inc. • Thunder Bay Hydro Electricity Distribution Inc.
8. Windsor-Essex	• E.L.K. Energy Inc. • Entegrus Power Lines Inc. [Chatham-Kent] • EnWin Utilities Ltd. • Essex Powerlines Corporation • Hydro One Networks Inc.
9. East Lake Superior	N/A → This region is not within Hydro One's territory
10. GTA East	• Hydro One Networks Inc. • Oshawa PUC Networks Inc. • Veridian Connections Inc. • Whitby Hydro Electric Corporation

11. London area	• Entegrus Power Lines Inc. [Middlesex] • Erie Thames Power Lines Corporation • Hydro One Networks Inc. • London Hydro Inc. • Norfolk Power Distribution Inc. • St. Thomas Energy Inc. • Tillsonburg Hydro Inc. • Woodstock Hydro Services Inc.
12. Peterborough to Kingston	• Eastern Ontario Power Inc. • Hydro One Networks Inc. • Kingston Hydro Corporation • Lakefront Utilities Inc. • Peterborough Distribution Inc. • Veridian Connections Inc.
13. South Georgian Bay/Muskoka	• Collingwood PowerStream Utility Services Corp. (COLLUS PowerStream Corp.) • Hydro One Networks Inc. • Innisfil Hydro Distribution Systems Limited • Lakeland Power Distribution Ltd. • Midland Power Utility Corporation • Orangeville Hydro Limited • Orillia Power Distribution Corporation • Parry Sound Power Corp. • Powerstream Inc. [Barrie] • Tay Power • Veridian Connections Inc. • Veridian-Gravenhurst Hydro Electric Inc. • Wasaga Distribution Inc.
14. Sudbury/Algoma	• Espanola Regional Hydro Distribution Corp. • Greater Sudbury Hydro Inc. • Hydro One Networks Inc.
15. Chatham/Lambton/Sarnia	• Bluewater Power Distribution Corporation • Entegrus Power Lines Inc. [Chatham-Kent] • Hydro One Networks Inc.

16. Greater Bruce/Huron	• Entegrus Power Lines Inc. [Middlesex] • Erie Thames Power Lines Corporation • Festival Hydro Inc. • Hydro One Networks Inc. • Wellington North Power Inc. • West Coast Huron Energy Inc. • Westario Power Inc.
17. Niagara	• Canadian Niagara Power Inc. [Port Colborne] • Grimsby Power Inc. • Haldimand County Hydro Inc.* • Horizon Utilities Corporation • Hydro One Networks Inc. • Niagara Peninsula Energy Inc. • Niagara-On-The-Lake Hydro Inc. • Welland Hydro-Electric System Corp. • Niagara West Transformation Corporation* * Changes to the May 17, 2013 OEB Planning Process Working Group Report
18. North of Moosonee	N/A → This region is not within Hydro One's territory
19. North/East of Sudbury	• Greater Sudbury Hydro Inc. • Hearst Power Distribution Company Limited • Hydro One Networks Inc. • North Bay Hydro Distribution Ltd. • Northern Ontario Wires Inc.
20. Renfrew	• Hydro One Networks Inc. • Ottawa River Power Corporation • Renfrew Hydro Inc.
21. St. Lawrence	• Cooperative Hydro Embrun Inc. • Hydro One Networks Inc. • Rideau St. Lawrence Distribution Inc.

IESO LETTER OF COMMENT



Introduction

On March 28, 2013, the Ontario Energy Board ("the OEB" or "Board") issued its Filing Requirements for Electricity Transmission and Distribution Applications; Chapter 5 – Consolidated Distribution System Plan Filing Requirements (EB-2010-0377). Chapter 5 implements the Board's policy direction on 'an integrated approach to distribution network planning', outlined in the Board's October 18, 2012 Report of the Board - A Renewed Regulatory Framework for Electricity Distributors: A Performance Based Approach.

As outlined in the Chapter 5 filing requirements, the Board expects that the [Independent Electricity System Operator][1] ("[IESO]") comment letter will include:

- the applications it has received from renewable generators through the FIT program for connection in the distributor's service area;
- whether the distributor has consulted with the [IESO], or participated in planning meetings with the [IESO];
- the potential need for co-ordination with other distributors and/or transmitters or others on implementing elements of the Renewable Energy Generation ("REG") investments; and
- whether the REG investments proposed in the DS Plan are consistent with any Regional Infrastructure Plan.

E.L.K. Energy Inc. – Distribution System ("DS") Plan

On July 29, 2016, the IESO received a 5-year (2016-2020) REG Investments Plan ("Plan") from E.L.K. Energy Inc. ("E.L.K. Energy"). The IESO has reviewed the Plan and provides the following comments.

IESO FIT/microFIT Applications Received

As at the end of 2015, the Plan indicates that E.L.K. Energy has connected 139 microFIT projects, and 5 FIT projects. E.L.K. Energy has forecast an additional 34.28 kW from potential microFIT projects connecting in each of the 5 years of the Plan, as well as 340 kW in 2016 and 200 kW in each subsequent year (2017-2020). No REG investments are included as part of E.L.K. Energy's DS Plan.

According to the IESO's information as of June 30, 2016, the IESO has offered contracts to 142 microFIT projects totalling 1,242 kW of capacity, all of which have reached commercial operation. The IESO has also offered contracts to 11 FIT projects totalling 2,959 kW of capacity, of which 5 projects, totalling 1,729 kW have reached commercial operation. The REG connections information in E.L.K. Energy's Plan is therefore substantially consistent with that of the IESO.

[1] On January 1, 2015, the Ontario Power Authority ("OPA") merged with the Independent Electricity System Operator ("IESO") to create a new organization that will combine the OPA and IESO mandates. The new organization is called the Independent Electricity System Operator.

Independent Electricity System Operator
1600 – 120 Adelaide Street West, Toronto, ON M5H 1T1
t 416 967-7474 f 416 967-1947 toll free 1-800-797-9604 customer.relations@ieso.ca www.ieso.ca

Consultation / Participation in Planning Meetings; Coordination with Distributors / Transmitters / Others; Consistency with Regional Plans

E.L.K. Energy is one of the five local distribution companies in the Windsor-Essex Region identified through the OEB regional planning process. As member of the Technical Working Group for the Windsor-Essex Region, E.L.K. Energy has been involved in the development of the Windsor-Essex Region Integrated Regional Resource Plan ("IRRP"), which was published in April 2015.[2] On December 22, 2015, Hydro One Networks Inc. published a Regional Infrastructure Plan ("RIP") for this region in which E.L.K. Energy participated as a member of the Working Group.[3]

The regional planning process for this region is now complete and will be undertaken again when the next 5-year planning cycle commences, unless there is sufficient load growth, or an event that triggers the requirement to initiate the regional planning process earlier.

The IESO appreciates the opportunity to comment on the REG Investments Plan provided by E.L.K. Energy, as part of its DS Plan at this time.

[2] http://www.ieso.ca/Documents/Regional-Planning/Windsor_Essex/2015-Windsor-Essex-IRRP-Report.pdf
[3] http://www.hydroone.com/RegionalPlanning/Windsor-Essex/Documents/RIP%20Report%20Windsor-Essex.pdf

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Scorecard - E.L.K. Energy Inc.

9/29/2016

Performance Outcomes	Performance Categories	Measures		2011	2012	2013	2014	2015	Trend	Target: Industry	Target: Distributor
Customer Focus Services are provided in a manner that responds to identified customer preferences.	Service Quality	New Residential/Small Business Services Connected on Time		100.00%	96.80%	94.40%	92.90%	94.90%	down	90.00%	
		Scheduled Appointments Met On Time		96.60%	100.00%	96.20%	100.00%	100.00%	up	90.00%	
		Telephone Calls Answered On Time		96.40%	97.00%	97.40%	97.00%	97.50%	up	65.00%	
	Customer Satisfaction	First Contact Resolution					98%+	Excellent			
		Billing Accuracy					99.97%	99.99%	up	98.00%	
		Customer Satisfaction Survey Results					Excellent	Excellent			
Operational Effectiveness Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.	Safety	Level of Public Awareness						78.00%			
		Level of Compliance with Ontario Regulation 22/04 [1]		C	C	C	C	C	flat		C
		Serious Electrical Incident Index	Number of General Public Incidents	0	0	0	0	0	flat		0
			Rate per 10, 100, 1000 km of line	0.000	0.000	0.000	0.000	0.000	flat		0.000
	System Reliability	Average Number of Hours that Power to a Customer is Interrupted [2]		0.80	1.22	1.05	1.12	0.61	down		1.40
		Average Number of Times that Power to a Customer is Interrupted [2]		0.41	0.34	0.44	0.50	0.21	down		0.53
	Asset Management	Distribution System Plan Implementation Progress					In Progress	In Progress			
	Cost Control	Efficiency Assessment			1	1	1	1			
		Total Cost per Customer [3]		$418	$421	$401	$367	$428			
		Total Cost per Km of Line [3]		$31,417	$31,524	$29,697	$29,012	$31,877			
Public Policy Responsiveness Distributors deliver on obligations mandated by government (e.g., in legislation and in regulatory requirements imposed further to Ministerial directives to the Board).	Conservation & Demand Management	Net Cumulative Energy Savings [4]						10.26%			16.20 GWh
	Connection of Renewable Generation	Renewable Generation Connection Impact Assessments Completed On Time			100.00%	100.00%	100.00%				
		New Micro-embedded Generation Facilities Connected On Time				100.00%	100.00%	100.00%	flat	90.00%	
Financial Performance Financial viability is maintained; and savings from operational effectiveness are sustainable.	Financial Ratios	Liquidity: Current Ratio (Current Assets/Current Liabilities)		3.45	3.94	3.10	2.55	2.07			
		Leverage: Total Debt (includes short-term and long-term debt) to Equity Ratio		1.55	1.01	1.03	0.81	0.63			
		Profitability: Regulatory Return on Equity	Deemed (included in rates)	9.00%	9.00%	9.12%	9.12%	9.12%			
			Achieved	4.07%	11.90%	9.20%	19.22%	10.72%			

1. Compliance with Ontario Regulation 22/04 assessed: Compliant (C); Needs Improvement (NI); or Non-Compliant (NC).
2. The trend's arrow direction is based on the comparison of the current 5-year rolling average to the fixed 5-year (2010 to 2014) average distributor-specific target on the right. An upward arrow indicates decreasing reliability while downward indicates improving reliability.
3. A benchmarking analysis determines the total cost figures from the distributor's reported information.
4. The CDM measure is based on the new 2015-2020 Conservation First Framework. This measure is under review and subject to change in the future.

Legend: 5-year trend: up, down, flat. Current year: target met, target not met.

APPENDIX F - CAPITAL EXPENDITURE SUMMARY BY CATEGORY

Appendix 2-AB

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

First year of Forecast Period: *2017*

CATEGORY	**Historical Period** (previous plan[1] & actual)															**Forecast Period** (planned)				
	2012			**2013**			**2014**			**2015**			**2016**			**2017**	**2018**	**2019**	**2020**	**2021**
	Plan	**Actual**	**Var**	**Plan**	**Actual**	**Var**	**Plan**	**Actual**	**Var**	**Plan**	**Actual**	**Var**	**Plan**	**Actual[2]**	**Var**					
	$ '000		%	*$ '000*		%	*$ '000*		%	*$ '000*		%	*$ '000*		%	*$ '000*				
System Access		566,654	--		1,316,405	--		734,364	--		793,896	--		1,068,807	--	560,210	677,053	693,979	711,329	729,112
System Renewal		206,859	--		109,702	--		133,322	--		494,469	--		262,193	--	261,793	295,149	459,279	476,214	301,272
System Service			--			--			--			--			--					
General Plant		11,101	--		52,779	--		118,492	--		39,655	--		148,500	--	491,500	457,000	202,000	177,000	337,000
TOTAL EXPENDITURE	-	784,614	--		1,478,886	--		986,178	--		1,328,020	--	-	1,479,500	--	1,313,503	1,429,202	1,355,258	1,364,543	1,367,384
System O&M		$876,831	--		$ 725,313	--		$806,466	--		$1,202,297	--		$1,284,089	--	$1,542,300	$1,413,195	$ 1,477,747	$1,445,471	$1,461,609

APPENDIX G - VEHICLE REPLACEMENT PROGRAM

Vehicle Replacement Program
October 21 2016

1.0 Background

E.L.K. manages a fleet of vehicles that are essential to the efficient and effective day-to-day operation of the utility. This fleet includes bucket trucks, a radial boom derrick (RBD), underground service truck, dump truck, various trailers, small pickup trucks, SUV's, chipper and backhoe. It is crucial that all fleet vehicles are maintained properly and replaced in a timely manner - keeping overall costs in mind. This requires balancing new vehicle purchase costs against excessive repair bills and operational downtime that occur when vehicles are kept for too long.

2.0 Applicability

The Operations division is responsible for managing the operating and capital replacement of the **E.L.K.** fleet vehicles. Requests for replacement vehicles are made via the Operations Manager. This guideline establishes a philosophy specific to the **E.L.K.** fleet that ensures continued safety, minimized down time, and maximum overall efficiency. This helps to preserve the core functionality for the utility and maximize the overall efficiency at which the fleet is operated.

3.0 Asset Detail

The total value of the **E.L.K.** fleet, based on original purchase costs, is approximately $1.2M. For the purposes of this document, large trucks are defined as bucket trucks and RBD's, midsized trucks are licensed in excess of 3,500 kG and light trucks are licensed at 3,500 kG or less. The Total Useful Life (TUL) assigned to each class is large 15 years, mid 10 years and light 8 years.

E.L.K.'s fleet information is summarized here (as of October, 2016):

Vehicle Type	#	Average Age (years)	Maximum Age (years)	TUL (years)
Bucket Truck	3	11.3	16	15
RBD	2	21	21	15
Midsized Truck	2	4.5	8	10
Light Vehicles	4	4.8	7	8
Trailers & Misc. Equipment	5	10.2	21	15
Total all Vehicles	16	10.36		

4.0 Responsibility

All fleet vehicle purchases are made in compliance with **E.L.K.**'s latest Purchasing Policy. Fleet purchases are budgeted for on an annual basis with the annual capital and operating budgets for the department approved as part of the corporate budgeting process.

Large vehicles are typically budgeted for and ordered one year in advance of delivery due to the long lead times required by the manufacturers.

Statistics such as maintenance costs, fuel consumption, mileage are tracked per vehicle on a monthly basis.

5.0 Procedure

Replacement Criteria:

E.L.K.'s fleet vehicle replacement determination considers the following factors:

h. Age of the vehicle,
i. Odometer reading,
j. Maintenance costs,
k. Annual vehicle test results, including stress/electrical testing,
l. Practicality of existing vehicle including new technology available,
m. Changing emissions, weight, and road safety regulations obsoleting some existing units, and
n. Crew/other department needs.

When the age of the vehicle approaches its life expectancy, a case by case evaluation is done to determine whether or not replacement is an option ahead of or later than the vehicles normal life expectancy - with factors noted above as additional considerations.

Odometer readings are considered when contemplating vehicle replacement. Generally, when a vehicle reaches 100,000 km, a vehicle's residual value drops significantly and maintenance costs will begin to increase.

Vehicle testing includes bucket trucks and RBD's that are tested annually for insulation resistance – the main electrical property of the boom assembly and structural stability. If significant work is required to maintain the unit within specifications, this could drastically impact planned vehicle replacement timelines. In addition, changes to provincial vehicle regulations can impact residual values through changes in planned or existing use limitations for large fleet vehicles.

Needs Evaluation:

Finally, with every vehicle replacement, department needs are reviewed to determine the best option:

- Replacement like for like,
- Replace with an alternative vehicle,
- Replace and keep the existing (addition to the fleet), or
- Don't replace (removal from the fleet).

Light vehicles may be moved between departments, before their end of life, to balance the age of the vehicle with the accumulated km to fully optimize overall vehicle use.

Vehicle end of life:

In general, when a vehicle is determined to no longer be of use to the **E.L.K.** fleet, it i in compliance with **E.L.K.**'s latest Purchasing Policy.

Any useable equipment on or attached to the vehicle is removed for reuse and all company logos are removed. All vehicles are sold "as is".

From an accounting perspective, vehicles are fully depreciated prior to disposal or sale. Large trucks are depreciated over 15 years, midsize over 10 and light vehicles are depreciated over a 8 year timeframe.

6.0 Guideline Review

This document will be reviewed and updated with the appropriate Operations management and administration staff on a regular basis.

APPENDIX H - CAPITAL PROJECT SUMMARIES

A. General Information

Project /Activity	Underground Rejuvenation _Augustine						
Project Number							
Investment Category	System Renewal						
	2012	2013	2014	2015	2016	2017	
Capital Cost (5.4.5.2 A.1)						$494,687	
Capital contribution						$0	
Net Cost						$494,687	
O&M Cost (5.4.5.2 A.1)	2012	2013	2014	2015	2016	2017	
						Undetermined	

Customer Attachments and Load (5.4.5.2 A.2)

Customer attachments within project area: 88 residential
Customer load within project area: TBD kW
Customer attachments downstream of project area: 0
Customer load downstream of project area: 0 kW

Start Date (5.4.5.2 A.3)		April 2017		**In-Service Date (5.4.5.2 A.3)**		September 2017
Expenditure Timing for the Test Year	2017 Q1	2017 Q2	2017 Q3	2017 Q4		
		$200,000	$294,687			

Project Summary

This reconstruction project includes the replacement of 14 pad-mounted transformers and the replacement of the existing direct-buried primary distribution system with a new underground distribution system in duct. One of the existing transformers has been replaced due to failure in 1992 and the remaining original transformers have an average age of 45.5 years. The existing underground primary cable is direct buried, was installed in 1971 and is 46 years old. Cable faults in direct buried cable result in higher costs to locate and repair faults. E.L.K.'s practice is to install all underground primary conductors in duct.

Risk Identification & Mitigation (5.4.5.2 A.4)

Scheduling Risks: This project is subject to scheduling risks with respect to external contractors and with other major projects. This project must also be completed before frost sets in the ground (due to the large amount of civil work required and the high costs of constructing in frost). This project is planned to begin in the second quarter of 2017, in order to allow the frost to leave the soil. By scheduling the project to begin in Q2 of 2017, the amount of available time for construction before frost returns will be maximized. If this project is not completed in 2017, the risk of asset failure will continue to increase with age. Therefore, delaying this project significantly increases the risk to E.L.K.'s system reliability performance.

Comparative information on expenditures for equivalent projects/activities (5.4.5.2 A.5)

E.L.K. completed a similar reconstruction project of a direct-buried residential development in 2015 at Viscount Estates. The Viscount Estates project was a reconstruction project involving the replacement of a direct-buried primary and live front pad-mounted transformers. Based on the comparable Viscount Estates project, the proposed construction cost of the Augustine project is in-line with the historic costs considering this project.

REG Investment Details including Capital and OM&A Costs (5.4.5.2 A.6)

Since this project is not associated with any REG investment, no REG related capital or OM&A costs will be incurred.

Leave to Construct approval under Section 92 of the OEB Act (5.4.5.2 A.7)

This project is below 50 kV, therefore Leave to Construct is not required, as per O.Reg 161/99

Attach Other project reference material i.e. Images, Drawings and or reference material

B. Evaluation criteria and information requirements for each project/activity

Efficiency, Customer Value & Reliability - Investment Main Driver (Trigger) (5.4.5.2 B.1.a)

The main driver for this project is the asset management objective "Reliability". The underground system in this residential development is made up of direct buried, non-tree retardant insulation cable. When a fault occurs, the outages are very difficult and time-consuming to repair. Replacement of the direct-buried system with a cable in duct system will facilitate the quick replacement of faulted cables.

Efficiency, Customer Value & Reliability - Investment Secondary Drivers/Investment Category (5.4.5.2 B.1.a)

The secondary driver for this project is the asset management objective "Operational Efficiency". The replacement of direct buried cable and the live front transformers will allow for quicker isolation and restoration of equipment due to improved clearance and dead-front operation.

Efficiency, Customer Value & Reliability - Investment objectives and/or performance targets (5.4.5.2 B.1.a)

The primary related investment objective is the asset management objective "Reliability". The secondary related investment objective is the asset management objective "Operational Efficiency".

Efficiency, Customer Value & Reliability - Source and nature of the information used to justify the investment (5.4.5.2 B.1.a)

The sources of the information used to justify the investment are asset data base, mapping system, reliability data from incident reports and E.L.K.'s direct-buried cable program, as detailed in the Asset Management Plan. Much of the data used in these assessments originated from visual inspection and expert opinion based on known past issues with direct buried cable.

Efficiency, Customer Value & Reliability - Priority Level / Project Prioritization and Reasoning (5.4.5.2 B.1.b) Priority Relative to Other Investments

E.L.K. prioritized this project in 2017 due to the existing live front transformers and to reduce the risk of incurring additional significant outages. This completion of this project will result in the removal of a significant amount of direct-buried cable. This project is prioritized ahead of other direct-buried cable projects, at or near end of useful life, due to the existing live front transformers, which puts the project at a higher risk of significant restoration times since the supply of repair parts are recycled from previous projects.

Analysis of Project & Alternatives - Effect of the investment on system operation efficiency and cost-effectiveness (5.4.5.2 B.1.c)

The proactive replacement of transformers that have reached their end of life and direct-buried cable will greatly decrease the probability of a failure in this project area. Because the cables are not in duct, faults must be located, exposed and spliced out in order to repair the cable, which is a very time consuming process. Additionally, the installation of a new dead-front transformers that meet current standards will allow for the operation of equipment in a safer and more efficient manner in the future due to improved clearance and dead-front operation.

Analysis of Project & Alternatives - Net benefits accruing to customers (5.4.5.2 B.1.ci),

Customers within the project area will benefit from this project through the reduction of the risk of an outage that the new system will provide. Customers will also indirectly benefit from the lower maintenance costs a new system will provide.

Analysis of Project & Alternatives - Impact of the investment on reliability performance including frequency and duration of outages (5.4.5.2 B.1.cii)

The risk of future outages from a live front transformer failure will be reduced through the use of a dead-front unit, which does not exhibit the tracking problems that are prevalent in older live-front transformers.
This will reduce the probability of an outage due to failure.
The replacement of the direct-buried cable system with a cable in duct system will improve the probability and duration of future outages. The new cable is fully jacketed cable, which protects the concentric neutral from damage due to exposure to moisture. Additionally, the duct system allows faulted cables to easily be pulled out and replaced. This eliminates the process of digging up faulted cable and splicing in new segments, resulting in greatly reduced duration for future outages.

Project Alternatives (Design, Scheduling, Funding/Ownership) (5.4.5.2 B.1.ciii)

Project Design Alternatives:
- The use of an overhead system is not conducive to the design and aesthetic of the existing residential development. Residential developments are supplied by underground distribution systems and installing an overhead system would not provide the same level of aesthetics and customer value.
- Replacing the transformers only is not a practical solution due to the amount of splicing that would be required to connect the new transformers to the existing cable. This would further weaken the direct buried cable system and expose the system to lower reliability.
- Like-for-like replacement is not a practical option for this project. The maintenance costs and reliability impacts associated with direct-buried cable far outweigh the cost savings of installing a direct buried system, making the use of a direct-buried system inefficient in the long-term
- A "Do-Nothing" solution is not a viable solution for this project. Doing nothing will put this area at a risk of extensive outages when the remaining aged assets fail.
Scheduling Alternatives:
- The scheduling of this project is based on its prioritization against other proposed projects. The scheduling is then further refined based on availability of resources and other project related constraints. This particular project is also constrained by the need to complete the construction outside of the winter season due to the amount of civil construction required and the increased cost and complexity involved with excavating in frost conditions, therefore the project cannot be completed in either the first or fourth quarters of the year.
Ownership Alternatives:
- Because this underground system supports E.L.K. equipment and supplies a large number of customers within the project area, ownership will be by E.L.K..

Safety (5.4.5.2.B2)

This investment will improve work safety by replacing the existing live-front transformers with dead-front equipment. Dead-front equipment provides an inherently safe interface for working on the equipment.

Cyber-Security, privacy (5.4.5.2.B3) (where applicable)

This project does not impact Cyber-Security or privacy.

Co-Ordination, Interoperability (5.4.5.2.B4i) Recognized Standards, Co-ordination with utilities, regional Planning, and/or 3rd party providers (where applicable)

E.L.K. is a member of the Utilities Standards Forum ("USF") and uses USF standards, supplemented by standards developed by E.L.K. The use of USF standards ensures that the design and construction of this project will be done according to a set of standards utilized by a large number of other utilities in Ontario.
Coordination with other electrical utilities is not applicable to this project because the project area is fully embedded within E.L.K.'s service territory and does not contain and connections to other utilities. Regional planning is not applicable to this project because there is no additional capacity being installed as part of this project.

Co-Ordination, Interoperability (5.4.5.2.B4ii) Future Technological functionality and/or future operational requirements (where applicable)

This project supplies a fully-developed residential development. No further development is possible on the site and the system does not supply any additional loads downstream. Therefore no further future operational requirements are being provided for at this time however with the conversion to dead front transformers there will be the option to reporting devices to the capacitive test points. i.e. reporting fault indicators

Economic Development (5.4.5.2.B5) (where applicable)

The reconstruction of this underground system does not impact economic development. This system serves a residential development site which is fully developed.

Environmental Benefits (5.4.5.2.B6) (where applicable)

The redesign of this project area will also include an assessment of existing transformer loading and where necessary, transformers will be replaced with an appropriately sized unit to reduce distribution losses.

C. Category-Specific Requirements – System Renewal

Asset performance-related operational targets and asset lifecycle optimization policies and practices (refer to 5.2.3 and 5.3.3) (5.4.5.2 SR - C1.1)

This project fulfills Operational Effectiveness reliability targets by contributing to lowering SAIDI, SAIFI and CAIFI index results. This project also supports safety targets by creating a safer work environment through the removal of live-front equipment. Additionally, the selected course of reconstruction has a lower life-cycle cost than other underground alternatives due to the reduction in ongoing maintenance requirements provided by the cable in duct system. Finally, this project supports Customer Focus and Service Quality targets by removing the risk of lengthy and unplanned outages from failed equipment and direct buried cable.

Information on the condition of the assets relative to their typical life-cycle and performance record (5.4.5.2 SR - C1.2)

The original transformers in the project area were purchased and installed predominately in 1971 on average (one transformer has already been replaced). The units are 45.5 years old on average which is beyond the typical useful life of pad-mounted transformers in E.L.K.'s system. The transformers have performed about average from an age perspective. The direct-buried primary cable in the project area was installed in 1971 and no complete cables have been replaced. The remaining cable has surpassed the typical useful life for primary cable in duct. Given the fact that the cable is direct buried, which tends to reduce the useful life of the cable, this cable has performed very well compared to other underground primary cable of the same age in the E.L.K. system. However, the cable has now exceeded the typical useful life, dramatically increasing its probability of failure. Additionally, cable of this vintage has non-tree retardant insulation which increases the probability of asset failure by means of burn-off and insulation break-down.

The number of customers in each class potentially affected by failure of the assets (5.4.5.2 SR - C1.3)

88 Residential customers are within this project area and would be affected by an asset failure in this project area. No additional customers are downstream of this project area.

Quantitative customer impacts (5.4.5.2 SR - C1.4)

Two reliability events have occurred within this project area over the past 5.5 years. One transformer was replaced due to equipment failure as well as one cable failure has occurred.

Qualitative customer impacts (5.4.5.2 SR - C1.5)

The completion of this project will ensure that this residential development's distribution system performs at or above reliability targets. Replacement of the transformers and direct buried cable system will reduce the probability of a long duration failure occurring. A portion of the system is installed rear lot with limited access and has 2 non-standard “T splices” in the primary cable. One of the T splices is also located in the rear lot. Should a portion of the cable at or near the T splice fail new primary feeds would have to be directionally bored into 3 transformers. Long duration failures have a negative impact on customer satisfaction, especially if the failure occurs during the winter season or during a holiday or other important event.

Value of customer impact in terms of characteristics of customers potentially affected by failure that have a bearing on the criticality and/or cost of failure (5.4.5.2 SR - C1.6)

There is a low impact to customers in this project area in terms of the criticality and cost of an asset failure. This line supplies a residential development of customers who will have a relatively low cost of failure and tend to not have any backup supply arrangements.

Timing & Priority of Project (5.4.5.2 SR - C2)

This project is part of an overall capital replacement plan for 2017. The assets being replaced fall within the planned, levelized replacement quantities.
Due to the amount of civil construction required, this project requires coordination amongst other projects in the system to ensure that sufficient contractor resources are available to complete the project before the fourth quarter of 2017. This project does not rely on any System Renewal, System Access, System Service or General Plant projects being completed first. This project has been prioritized amongst other System Renewal projects and its position in the construction schedule also takes available resources, and weather conditions (such as winter frost conditions) into account.

Consequences for system O&M costs (5.4.5.2 SR - C3)

O&M costs are expected to be reduced by this project for the following reasons:
- Replacement of damaged equipment and live-front equipment will improve the flexibility of the system and reduce isolation, restoration and switching times.
- Replacement of the direct-buried cable system with a cable in duct system will reduce the cost of future repairs from cable faults. Cable can be removed and replaced in the duct and time intensive fault locating and costly excavating and splicing work will be avoided.

Impact on Reliability performance and or Safety (5.4.5.2 SR - C4)

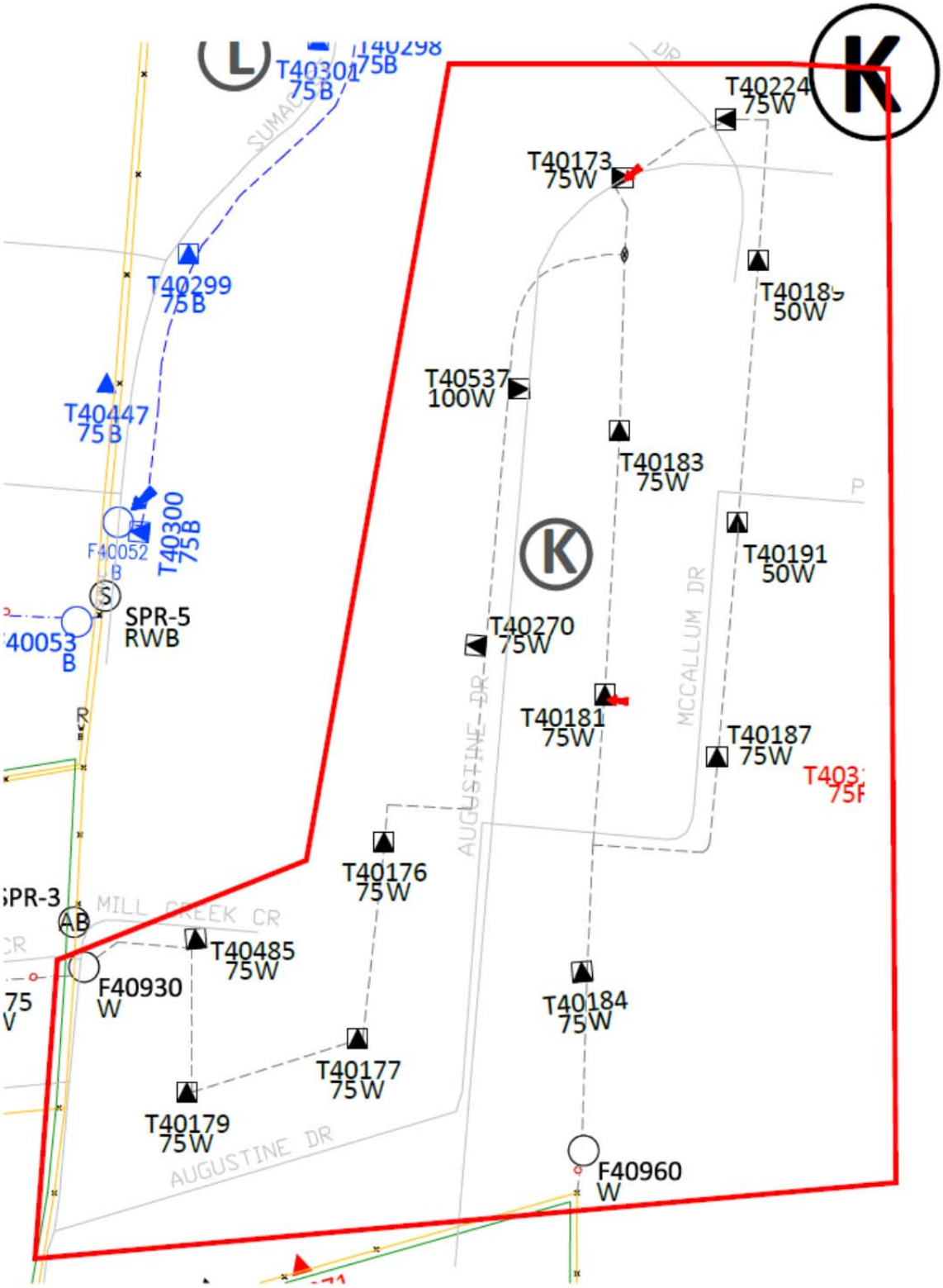
The impact this project will have on reliability performance and safety is as follows:
- Removal of live-front equipment will improve Employee Safety by providing inherently safe interfaces on the pad mount transformers.
- Replacement of a direct-buried cable system with a cable in duct system will improve reliability by greatly decreasing restoration times.

Analysis of Project Benefits and Timing (5.4.5.2 SR - C5)

E.L.K. will be implementing a project prioritization system for all system renewal and system service projects, during the period covered by this DSP. The system will optimizes capital expenditure planning by establishing risk levels for project areas (from asset health information and by evaluating how asset failures or system constraints will affect public safety, Employee Safety, environmental impacts, reliability and power quality, operational efficiency and customer satisfaction).
The timing of the project also considers the benefits and costs described in this project summary. Completing this project will reduce system outage frequency and duration and improve public and Employee Safety. O&M costs will also be reduced by removing direct-buried cable. Direct-buried cable faults require time intensive fault locating and costly excavation and splicing work. The timing of this project could be affected by the ability to obtain sufficient contractor resources, poor weather and long lead times on large orders of transformers and primary cable.
Costs of the project may be affected by increases in contractor and material prices.
While there is some uncertainty in the cost and timing of the project, delaying this project beyond 2017 may cause the risk of failure to increase dramatically and will reduce some of the project benefits such as the reduction of risk and outages. E.L.K. has considered several alternatives for the design and timing of this project, which are discussed in this project summary. E.L.K. has weighed these alternatives and determined that this expenditure is required in 2017 to prevent significant reliability issues and impacts to customer satisfaction.

Like for Like Renewal Analysis, Alternatives Comparison (like-for-like vs. not like-for-like, timing, rate of replacement, etc. (5.4.5.2 SR - C6)

Like for like construction was considered for this project but because the installation of direct-buried cable is no longer supported by E.L.K. due to reliability impacts and decreased asset life, like for like renewal is not an option for this project. Other alternatives, such as installing an overhead system will result in negative impacts to reliability and aesthetics and are not compatible with the existing site. Construction during winter months is not feasible due to the increased costs and time involved with excavating in frost conditions and the large amount of excavation required for this project.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A. General Information

Project /Activity	Administration Office/Computer Improvements						
Project Number							
Investment Category	General Plant						
	2012	2013	2014	2015	2016	2017	
Capital Cost (5.4.5.2 A.1)						$46,500	
Capital contribution							
Net Cost							
O&M Cost (5.4.5.2 A.1)	2012	2013	2014	2015	2016	2017	
						N/A	

Customer Attachments and Load (5.4.5.2 A.2)

Not Applicable

Start Date (5.4.5.2 A.3)	January 1, 2017	**In-Service Date (5.4.5.2 A.3)**	December 31, 2017

Project Summary

In this project/activity, E.L.K. has allocated capital additions to buildings and fixtures ($2,000) for painting on the main lobby, office equipment & furniture ($16,000) which includes office bathroom renovations, computer hardware ($500) that includes 2 TB external hard drives for daily backup's and computer software ($28,000) which includes an updated e-Doc file management software program as well as greater web presentment tool software within E.L.K.'s CIS.

Risk Identification & Mitigation (5.4.5.2 A.4)

Risks associated with these improvements are minimal in nature, but may include disruption to administrative workflows, development delays, and possible cost overruns. Risk mitigation includes close co-ordination with 3rd party providers, and having defined timelines.

Comparative information on expenditures for equivalent projects/activities (5.4.5.2 A.5)

No information exists on comparative expenditures.

REG Investment Details including Capital and OM&A Costs (5.4.5.2 A.6)

Not applicable.

Leave to Construct approval under Section 92 of the OEB Act (5.4.5.2 A.7)

Not applicable.

Attach Other project reference material i.e. Images, Drawings and or reference material

Not applicable.

B. Evaluation criteria and information requirements for each project/activity
Efficiency, Customer Value & Reliability - Investment Main Driver (Trigger) (5.4.5.2 B.1.a)
The main driver/trigger for these investments is to provide a better working environment for staff with respect to the office related items. With respect to the additional computer software implementations, the main driver/trigger is to provide E.L.K. customers with greater information.
Efficiency, Customer Value & Reliability - Investment Secondary Drivers/Investment Category (5.4.5.2 B.1.a)
With respect to the additional computer software implementations, the secondary drivers/triggers are providing customers with another method to communicate with the utility, and a greater ability for them to manage their electricity consumption.
Efficiency, Customer Value & Reliability - Investment objectives and/or performance targets (5.4.5.2 B.1.a)
Investment objectives include improving access to additional data to E.L.K. customers than is currently available to them and having additional customers sign up for e-care and online services. As well, ensuring proper allocation of investments is of great importance.
Efficiency, Customer Value & Reliability - Source and nature of the information used to justify the investment (5.4.5.2 B.1.a)
E.L.K. has relied upon internal communications as well as E.L.K.'s customer survey, as documented in Exhibit 1, which is the voice of E.L.K.'s customer base. Further, E.L.K.'s focus on customer focus as part of the OEB's RRFE criteria is also a critical factor in assisting E.L.K. with these decision points.
Efficiency, Customer Value & Reliability - Priority Level / Project Prioritization and Reasoning (5.4.5.2 B.1.b) Priority Relative to Other Investments
This project has a moderate to high priority ranking. This ranking exists due to the fact that it will improve the office not only for our current employees but also for for customers that come into our office. It reflects that E.L.K. is proud of itself and looks for continuous improvement.
Analysis of Project & Alternatives - Effect of the investment on system operation efficiency and cost-effectiveness (5.4.5.2 B.1.c)
These investments will improve overall aesthetics of E.L.K. for staff as well as E.L.K.'s customer base. In addition, customer experience, knowledge and communication with E.L.K. will be improved through the increased use of new computer software platforms.
Analysis of Project & Alternatives - Net benefits accruing to customers (5.4.5.2 B.1.ci),
Customer benefits include increased knowledge of account details, usage, patterns, etc. that will allow customers to better manage future consumption. Another benefit is the implementation of an additional method of communication between the customer and E.L.K.
Analysis of Project & Alternatives - Impact of the investment on reliability performance including frequency and duration of outages (5.4.5.2 B.1.cii)
Not applicable.
Project Alternatives (Design, Scheduling, Funding/Ownership) (5.4.5.2 B.1.ciii)
An alternative is not implementing capital spending, maintaining the status quo. This is not an acceptable option for E.L.K. as our customers are expecting a greater availability of real-time data and our offices require capital additions to refresh the space and accommodate the new employees.
Safety (5.4.5.2.B2)
Not applicable.
Cyber-Security, privacy (5.4.5.2.B3) (where applicable)
E.L.K. Has hired a third-party who specialized in computer systems who is consulted on an as-needed basis to ensure that all proper precautions are taken to protect E.L.K. and customer data through secure firewalls.
Co-Ordination, Interoperability (5.4.5.2.B4i) Recognized Standards, Co-ordination with utilities, regional Planning, and/or 3rd party providers (where applicable)
Not applicable.
Co-Ordination, Interoperability (5.4.5.2.B4ii) Future Technological functionality and/or future operational requirements (where applicable)
The new computer software provides customers with greater access to data to help them better understand and control consumption.

Economic Development (5.4.5.2.B5) (where applicable)
Local third parties and material supplies will be included as part of the quote process.
Environmental Benefits (5.4.5.2.B6) (where applicable)
This investment will reduce printed paper through the implementation of E-Doc File Management Software. Files will be stored on a server, reducing the need to print physical copies of documents.

C. Category-Specific Requirements – General Plant
Results of quantitative and qualitative analyses, business case documenting the justifications for the expenditure (5.4.5.2 GP - C1)
E.L.K.'s investment in its building is important and integral to the work environment of staff as well as the customers that physically come into the office. Maintenance and replacement of office items that are old and worn such as the bathrooms and office walls have supported E.L.K. to make this expenditure. With respect to the computer software upgrades. E.L.K. is not only looking to minimize paper and possible routine customer questions but also empower E.L.K. customers to take control of their usage and assist them with tools that can potentially allow them to better manage their usage in the future. The e-file software will reduce the number of client calls we expect to receive. Once the e-file software has been implemented and tested, E.L.K. will be in a better position to evaluate and monitor the quantitative savings.
Business Case Documenting the Justifications for the Expenditure, Alternatives Considered, Benefits for Customers (short/long term), and Impact on Distributor Costs (short/long term)
E.L.K. is addressing customer focus as one of the 4 main RRFE criteria in these expenditures. E.L.K.'s investment in its building is important and integral to the work environment of staff as well as the customers that physically come into the office. Maintenance and replacement of office items that are old and worn such as the bathrooms and office walls have supported E.L.K. to make this expenditure. With respect to the computer software upgrades. E.L.K. is not only looking to minimize paper and possible routine customer questions but also empower E.L.K. customers to take control of their usage and assist them with tools that can potentially allow them to better manage their usage in the future.

A. General Information

Project /Activity	Fleet/Rolling Stock - Truck 303 Replacement						
Project Number							
Investment Category	General Plant						
	2012	2013	2014	2015	2016	2017	
Capital Cost (5.4.5.2 A.1)						$445,000	
Capital contribution							
Net Cost							
O&M Cost (5.4.5.2 A.1)	2012	2013	2014	2015	2016	2017	
	$8,659	$5,865	$12,487	$13,357	$5,328	$1,511	

Customer Attachments and Load (5.4.5.2 A.2)

Not applicable.

Start Date (5.4.5.2 A.3)		January 2017		**In-Service Date (5.4.5.2 A.3)**		December 2017
Expenditure Timing for the Test Year	2017 Q1	2017 Q2	2017 Q3	2017 Q4		
		$130,000		$315,000		

Project Summary

This project includes all capital costs associated with E.L.K.'s fleet "Truck 303" replacement. Truck 303 is a large radial boom derrick (RBD) truck that includes a 44.5' reach boom with auger and the only RBD in E.L.K.'s fleet. Some of what an RBD is used to set poles, transformers, transformer bases and load reels of cable. It is a 1995 that was purchased in 1995. By 2017 it will be 22 years old which is well beyond normal life expectancy for large trucks in our fleet. Due to changing needs in the department, Truck 303 will be replaced with another RBD truck with an extended reach of 52'.

Risk Identification & Mitigation (5.4.5.2 A.4)

As Truck 303 is the only RBD in E.L.K.'s fleet and with the O&M costs trending upwards the risk of it being out of service for repairs is increasing. (O&M costs for 2016 are current to July 2nd and 2017 are known costs) Risks associated with Truck 303 being out of service include the inability to set or replace poles, install or replace pad mount transformers/bases and install or replace larger overhead transformers. Risks associated with not allowing for timely equipment replacement include an aging fleet where eventually, multiple pieces of equipment will need replacement requiring large investments in one year versus levelled out spending over multiple years. Other risks associated with aging vehicles and equipment for employees include ergonomic, employee safety, and efficiency issues including increased response times to trouble call sites and delays in capital construction projects due to equipment availability issues.

Comparative information on expenditures for equivalent projects/activities (5.4.5.2 A.5)

No information exists on comparative expenditures - the most recent radial boom derrick purchase occurred in 1995.

REG Investment Details including Capital and OM&A Costs (5.4.5.2 A.6)

Not applicable.

Leave to Construct approval under Section 92 of the OEB Act (5.4.5.2 A.7)

Not applicable.

Attach Other project reference material i.e. Images, Drawings and or reference material

See the picture attached.

B. Evaluation criteria and information requirements for each project/activity

Efficiency, Customer Value & Reliability - Investment Main Driver (Trigger) (5.4.5.2 B.1.a)

E.L.K.'s vehicle replacement program includes an average life expectancy for large trucks of 15 years. Truck 303 will be 22 years old in 2017 and, based on costs for maintenance and other factors, E.L.K. has determined that this vehicle will need to be replaced in 2017.

Efficiency, Customer Value & Reliability - Investment Secondary Drivers/Investment Category (5.4.5.2 B.1.a)

Not applicable.

Efficiency, Customer Value & Reliability - Investment objectives and/or performance targets (5.4.5.2 B.1.a)

To ensure proper allocation of investments in general plant assets

Efficiency, Customer Value & Reliability - Source and nature of the information used to justify the investment (5.4.5.2 B.1.a)

Repair costs and total km are among several things that are tracked and reported on a monthly/annual basis. These are among several factors considered when contemplating large vehicle replacements in conjunction with E.L.K.'s vehicle replacement program

Efficiency, Customer Value & Reliability - Priority Level / Project Prioritization and Reasoning (5.4.5.2 B.1.b) Priority Relative to Other Investments

Prioritization of replacement of fleet vehicles is determined in accordance with E.L.K.'s fleet replacement philosophy OP-GUI-001. This process aim is to create a sustainable, levelized five-year capital plan for the forecast period. In prioritizing replacement, E.L.K. considers:
a) Age of the vehicle;
b) Odometer reading;
c) Maintenance costs;
d) Annual vehicle test results, including stress/electrical testing;
e) Practicality of existing vehicle including new technology available;
f) Changing emissions, weight, and road safety regulations obsoleting some existing units; and
g) Crew/other department needs.
Truck 303 is the only radial boom derrick truck in E.L.K.'s fleet and has surpassed its average life expectancy. Replacement of the vehicle is important as it forms a vital part of E.L.K.'s fleet. Accordingly, replacement of Truck 303 is considered a mid-level priority in 2017, as it is projected that its performance will continue to deteriorate going forward.

Analysis of Project & Alternatives - Effect of the investment on system operation efficiency and cost-effectiveness (5.4.5.2 B.1.c)

The reliability of the large trucks in the fleet impact several areas including construction project and response time to trouble efficiency. Equipment availability directly impacts crew productivity as well so new Truck 303 maintains and improves these efficiencies.

Analysis of Project & Alternatives - Net benefits accruing to customers (5.4.5.2 B.1.ci),

Net benefits to customers include maintaining and improving response times to outages, system reliability, and crew effectiveness.

Analysis of Project & Alternatives - Impact of the investment on reliability performance including frequency and duration of outages (5.4.5.2 B.1.cii)

The investment in Truck 303 does not directly impact system reliability or duration of outages but will assist in completing the renewal or restoration jobs that do.

Project Alternatives (Design, Scheduling, Funding/Ownership) (5.4.5.2 B.1.ciii)

Contracting the work truck may work for day to day operations but would create difficulties scheduling for emergency repairs and response. Renting/leasing had been reviewed previously and was deemed to be beneficial. If the truck were not replaced, replacement would become a requirement very quickly and when it does, chance are it will be coincident with another large vehicle replacement requirement therefore causing the capital budget to quickly become unpredictable on a year over year basis. This contradicts the idea of predictable, levelized capital budget spending.

Safety (5.4.5.2.B2)

This investment will improve worker safety as the new Truck 303 would be built to the latest safety standards.

Cyber-Security, privacy (5.4.5.2.B3) (where applicable)

Not applicable.

Co-Ordination, Interoperability (5.4.5.2.B4i) Recognized Standards, Co-ordination with utilities, regional Planning, and/or 3rd party providers (where applicable)
Not applicable.
Co-Ordination, Interoperability (5.4.5.2.B4ii) Future Technological functionality and/or future operational requirements (where applicable)
The investment will assist with future operational requirements by increasing the overall reach and lifting capacity range. As E.L.K. expands its underground distribution system the pad mounted transformers are increasing in size and weight.
Economic Development (5.4.5.2.B5) (where applicable)
Not applicable.
Environmental Benefits (5.4.5.2.B6) (where applicable)
Not applicable.

C. Category-Specific Requirements – General Plant
Results of quantitative and qualitative analyses, business case documenting the justifications for the expenditure (5.4.5.2 GP - C1)
Prioritization of replacement of fleet vehicles is determined through E.L.K.'s fleet replacement program. This process aims to determine the most cost effective time for vehicle replacement considering factors such as age of the vehicle, odometer reading, maintenance costs, annual vehicle test results, including stress/electrical testing, practicality of existing vehicle including new technology available, changing emissions, weight, and road safety regulations obsoleting some existing units, and crew/other department needs. Applying this program, it was determined that the test year is the most cost efficient time for the replacement of Truck 303 within the context of its own role and within the renewal schedule for the entire fleet. Qualitative analyses were completed by reviewing staff input on their needs or wants in the new truck. Additionally staff met with the vendors to discuss recent purchasing trends from other Ontario LDC's. Quantitative analysis, including tendering, exists for larger expenses through the normal purchasing policy and results are stored and filed appropriately.
Alternatives include varying replacement intervals and different fleet equipment suppliers. All purchases are made in accordance with existing approval and policy requirement (i.e. See Project Alternatives).
Business Case Documenting the Justifications for the Expenditure, Alternatives Considered, Benefits for Customers (short/long term), and Impact on Distributor Costs (short/long term)
E.L.K. does not consider this investment to substantially exceed the materiality threshold, based on previously approved budget levels and the nature of the equipment purchase.


SIMON-TELELECT
E.L.K.
Energy Inc.


E.L.K.

B. General Information

Project /Activity	Expansions for New Residential and Commercial Connections					
Project Number						
Investment Category	System Access					
	2012	2013	2014	2015	2016	2017
Capital Cost (5.4.5.2 A.1)	$556,664	$1,316,405	$734,364	$793,896	$1,069,807	$560,210
Capital contribution	$243,868	$1,008,530	$458,739	$111,122	$445,432	$240,890
Net Cost	$312,796	$307,875	$275,625	$682,774	$624,375	$319,320
O&M Cost (5.4.5.2 A.1)	2012	2013	2014	2015	2016	2017
	NA	NA	NA	NA	NA	NA

Customer Attachments and Load (5.4.5.2 A.2)

The number of customer attachments and load is different for each specific project within the program. This information is not available at this time. In a typical year, E.L.K. will make approximately 6 expansions to lines that can affect in excess of 100 of new customers, predominantly residential, of approximately 2kVA-1.5mVA in size. (E.L.K. completed a total of 29 expansions of which 9 were to supply residential subdivisions in 2012, 2013, 2014 and 2015.)

Start Date (5.4.5.2 A.3)		January 1, 2017		**In-Service Date (5.4.5.2 A.3)**		December 31, 2017
Expenditure Timing for the Test Year	2017 Q1	2017 Q2	2017 Q3	2017 Q4		
	$47,898	$63,864	$127,728	$79,830		

Project Summary

These investments are related to expansions of E.L.K.'s distribution system for new residential developments. Work within this section covers the installation of new underground distribution system facilities to accommodate new residential developments. A large portion of the cost is recoverable through capital contributions by the developer based on an economic evaluation model. Expansions for new residential subdivisions are initiated by customer service requests. The overall capital requirement for this program is an estimate based on information from the Municipal Planning Departments, historical trends, and other known projects anticipated over the planning horizon. Detailed planning is not available for this program.

These investments are essential in order to meet the demand of connecting new condo, commercial and industrial customers to E.L.K.'s distribution system. Supply is at a primary voltage level, or through a utility transformer providing secondary voltage to a single building or group of buildings. The distribution system to individual customers within the building(s) is not part of utility's assets. Projects also include any upgrades to existing customer services. A significant portion of this cost is recovered through capital contributions by the customer/developer based on an economic evaluation model. Connections within this program are initiated by customer service requests. The overall capital requirement for the program is an estimate based on information from the Municipal Planning Departments, historical trends, and other known projects anticipated over the planning horizon. Detailed planning and project listing is not available for this program.

Risk Identification & Mitigation (5.4.5.2 A.4)

New expansion projects are driven by customer service requests. E.L.K. has very limited control over the scope and timing of these projects. E.L.K. will review customer service requests on a regular basis such that expansions are identified in a timely manner to accommodate all residential subdivision developments. E.L.K. will work with developers to control timing of these projects such that customer expectations are met.

Risks associated with projects in this program typically include:

- Schedule delays that result from non-compliance of customers with E.L.K. standards and requirements
- Lack of or incorrect information required from the customer that could result delays

E.L.K.'s strategy to mitigate these risks is to maintain frequent communication with customers such that all requirements, both of E.L.K. and of the customer, are well understood and met.

Comparative information on expenditures for equivalent projects/activities (5.4.5.2 A.5)

Customer connection project/activities do not have a direct comparator other than previous year's expenditures as indicated in the summary table above.

REG Investment Details including Capital and OM&A Costs (5.4.5.2 A.6)

There are no REG investment associated with these expansions.

Leave to Construct approval under Section 92 of the OEB Act (5.4.5.2 A.7)

This project is below 50 kV, therefore Leave to Construct is not required, as per O.Reg 161/99

Attach Other project reference material i.e. Images, Drawings and or reference material

Developments are connected in accordance with E.L.K.'s Conditions of Service and standards for design and construction. Connection details vary widely within that standard.

B. Evaluation criteria and information requirements for each project/activity

Efficiency, Customer Value & Reliability - Investment Main Driver (Trigger) (5.4.5.2 B.1.a)

Projects in this program are driven by customer service requests.

Efficiency, Customer Value & Reliability - Investment Secondary Drivers/Investment Category (5.4.5.2 B.1.a)

The secondary driver for this program is mandated obligation to service new customers.

Efficiency, Customer Value & Reliability - Investment objectives and/or performance targets (5.4.5.2 B.1.a)

The objective of this program is to ensure proper allocation of investments to fulfill service obligations and meet existing and future demand levels.

Efficiency, Customer Value & Reliability - Source and nature of the information used to justify the investment (5.4.5.2 B.1.a)

E.L.K.'s capital planning for residential developments, condo, commercial, and industrial customer connections incorporates information from the Municipal Planning Departments, historical trends, and other service connections that have been identified for this planning cycle.

Efficiency, Customer Value & Reliability - Priority Level / Project Prioritization and Reasoning (5.4.5.2 B.1.b) Priority Relative to Other Investments

This program is of top priority relative to other material investments as it is part of E.L.K.'s mandated service obligations and therefore must be completed in the test year. Project planning will be coordinated with other projects/programs of the same priority level.

Analysis of Project & Alternatives - Effect of the investment on system operation efficiency and cost-effectiveness (5.4.5.2 B.1.c)

The new facilities will be designed and constructed in compliance with current standards and practices to create more flexibility in system operations. This reduces the needs for system modifications in the future and helps E.L.K. achieve better system operation efficiency and cost-effectiveness in the long term.

Analysis of Project & Alternatives - Net benefits accruing to customers (5.4.5.2 B.1.ci),

With this program in place new customers will be connected in a timely manner and receive consistent, reliable electricity service from E.L.K.

Analysis of Project & Alternatives - Impact of the investment on reliability performance including frequency and duration of outages (5.4.5.2 B.1.cii)

Although this program is not intended for reliability improvements, new construction will be designed to reduce impact on E.L.K.'s system reliability performance, reflected in improved SAIDI/SAIFI. New facilities will be constructed underground, eliminating causes of outages that typically exist with overhead facilities, such as tree contacts, lightning, and adverse weather conditions. New facilities will be designed to the most recent standards that maintains or improves the overall reliability of E.L.K.'s distribution system. Constructions are coordinated and performed with minimum interruptions to existing customers.

Project Alternatives (Design, Scheduling, Funding/Ownership) (5.4.5.2 B.1.ciii)

Individual connection options are evaluated under the terms of E.L.K.'s Conditions of Service to ensure an adequate and reliability supply of energy to the customer. Requirements for contribution, and scheduling are also described in that document.
Safety (5.4.5.2.B2)
This program helps to mitigate potential safety risks associated with events such as a pole falling down during severe weather event, or a vehicle hitting a pole, that can potentially result in fire, damage to surrounding houses and facilities, and serious injuries of personnel. New facilities will be designed and constructed to current safety standards. This program will have no adverse impact on health and safety protection and performance.
Cyber-Security, privacy (5.4.5.2.B3) (where applicable)
Not applicable
Co-Ordination, Interoperability (5.4.5.2.B4i) Recognized Standards, Co-ordination with utilities, regional Planning, and/or 3rd party providers (where applicable)
Customer connections at this level do not impact inter-utility coordination or regional planning activities. Coordination with customers and electricians is part of every project. Authorization from the Electrical Safety Authority is required prior to reconnection of connection of any services which is handled through an established process.
Co-Ordination, Interoperability (5.4.5.2.B4ii) Future Technological functionality and/or future operational requirements (where applicable)
Utility plant located on vaults on customer premises is designed to the latest standard for operational needs, which could include monitoring equipment and sensors.
Economic Development (5.4.5.2.B5) (where applicable)
This program is in place to support load growth that accompanies local development in the service region of E.L.K. This investment assists in creating jobs either through construction or new/expanding businesses.
Environmental Benefits (5.4.5.2.B6) (where applicable)
Not applicable.

C. Category-Specific Requirements – System Access

Factors Affecting Timing/Priority (5.4.5.2 SA - C1)

Timing and pacing of these projects is largely determined by the number of customer service requests received in each year, and the time when these requests are received. E.L.K. will prioritize new service connections requests based on customer's expectation of when the service requirement will be fulfilled, such that these expectations can be met. In cases where the customer is responsible for constructing or installing civil infrastructure that is deemed required by E.L.K. to facilitate the service connection, project delays can result if the civil infrastructure does not meet current standards of E.L.K.

Factors Related to Customer/Third-Party Preferences (5.4.5.2 SA - C2)

For new developments, a certain amount of E.L.K. plant must be located on the customer's premises and in customer developed right-of-ways. This can range from a meter installation up to a pad mounted transformer and primary cables or poles. E.L.K.'s Conditions of Service document outlines the requirements for the different types of services and has been crafted to account for customer preferences and to minimize the impacts on the development. Factors such as service location or plant location relative to customer owned equipment may be optional. E.L.K. strives to work with customers to agree on the optimal placement of assets.

Factors Affecting the Final Cost (5.4.5.2 SA - C3)

Final cost of the program is determined by the scope and timing of the work performed. The scope is subject to changes depending on the actual number of customer service requests received in each year, which may deviate from the estimates provided in the DSP. Additional costs may be required to complete the work if projects are delayed. Factors that can affect the cost are number of units, length of services, and subsurface conditions.

Methods Utilized to Minimize Controllable Costs (5.4.5.2 SA - C4)

E.L.K. ensures all Expansions are in accordance with the E.L.K. Standards which are based on established processes, use standard materials and methods, and benefit from efficiencies established through E.L.K.'s experience in such projects. Additionally, all materials are purchased and sub-contractor contracts are awarded in compliance with E.L.K.'s Purchasing Policy.

Other Planning Objectives (5.4.5.2 SA - C5) (where applicable)

Where appropriate, E.L.K.'s other planning objectives, as detailed in Section 5.4.2 of the Distribution System Plan, are considered on a project by project basis. These objectives include: maintain assets in a safe and reliable system, meet existing and future demand requirements, and support general plant. This program will maintain or improve system reliability performance, safety performance, and operational efficiency and cost-effectiveness, based on the installation of equipment to the latest standards and in excellent condition.

Technically feasible project design and/or implementation options exist (5.4.5.2 SA - C6)

E.L.K. makes all connections in accordance with the Conditions of Service document which has been designed to minimize overall costs and impact on the customer. General technically feasible options will not exist, however, if an option is requested by the customer. Specialized requests are evaluated on a case by case basis.

Summary of results analysis - "Least Cost", "Cost efficient" options (5.4.5.2 SA - C7)

E.L.K. makes new connections in accordance with the Conditions of Service and does not conduct life-cycle cost and cost efficiency reviews for each project. Where options exist, the Customer can select the option with the least impact on the project.
E.L.K. manages its portion of the cost by applying E.L.K. Standards which have been designed to minimize overall costs and impact on the customer, are based on establish processes, use standard materials and methods, and benefit from efficiencies established through E.L.K.'s experience in such projects.

Results of a final Economic Evaluation (5.4.5.2 SA - C8) (where applicable)

Final Economic Analysis as described in the DSC is not applicable to this program

System impacts costs & cost recovery method (5.4.5.2 SA - C9) (where applicable)

Expansions generally have a low impact on the system unless the developments are very large. Small developments are below the materiality threshold and are funded through customer contributions base on fixed and variable fees. Where a development requires major infrastructure upgrades, a specific minor or major betterment project will be created.

Appendix 2B - Renewable Energy Generation Investments Plan

E.L.K. ENERGY INC.

Renewable Energy Generation Investments Plan 2016 - 2020

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Table of Contents

E.L.K. ENERGY INC.
Renewable Energy Generation Investments Plan

1 Summary Information

1.1 Introduction

E.L.K. Energy Inc. (E.L.K. Energy) is a local distribution company (LDC) serving more than 11,700 customers in the Towns of Essex, Lakeshore and Kingsville. Within these towns, which cover a large geographic area in southwestern Ontario, E.L.K. Energy has six non-contiguous service areas, serving the communities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville. The Renewable Energy Generation Investments Plan (REGIP) is based on current information and represents E.L.K. Energy's best efforts to enable the connection of renewable generation facilities and to create a Smart Grid development strategy.

1.2 Current Situation

E.L.K. Energy distributes power from four transformer stations:

- Belle River TS – Owned by Hydro One (HO)
- Haycroft DS – Owned by Hydro One (HO)
- Kingsville TS – Owned by Hydro One (HO)
- Lauzon TS – Owned by Hydro One (HO)

At this point in time, E.L.K. Energy has no station restrictions imposed by HO. However, there are upstream feeder limitations on the Haycroft DS, serving the Comber Service Area, and Lauzon TS, serving the Essex Service Area, which will restrict any microFIT connections to these stations. The Kingsville TS feeder servicing E.L.K. Energy's Cottam Service Area, is fully allocated at 10% for an M class feeder so it also is restricted for microFIT connections.

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1.3 Current Renewable Generation

Project applications submitted to the OPA include the following:

- 441 Residential microFIT
  - 437 Solar PV
  - 4 Wind
- 13 Commercial FIT
  - 13 Solar PV

Of the above projects, the following have been approved and connected as of December 31, 2015:

- 139 Residential microFIT Solar PV
- 5 Commercial FIT

The distribution system has been virtually unaffected by the one hundred and forty-four projects connected thus far. The number of connections in 2011 increased sharply due to a forty-four unit microFIT cluster. E.L.K. Energy's forecast of connections is based on E.L.K. Energy's experience to date and requests for information from prospective generators. This REGIP includes information on how the anticipated renewable connections will impact E.L.K. Energy's distribution system.

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1.4 Current Information on Smart Grid Projects

The term "Smart Grid" has been used to describe a number of initiatives within the electrical distribution, transmission, and generation environments. For distribution utilities like E.L.K. Energy, Smart Grid projects are likely to centre on the following concepts:

- Optimization of the Distribution System
- Creating Self Healing Distribution Networks – Network Automation
- Distribution Intelligence – Monitoring the Network
- Two Way Communication Interfaces with the Customer
- Demand Control at the Customers Load – Home Area Networks

Smart Grid pilot projects, of all types, are being tested around the globe in various jurisdictions and are very much in a preliminary discovery phase. Significant impediments to the implementation of Smart Grid would include:

- Consumer Concerns Over Privacy
- Social Concerns Over the Use of Distribution System Information (including customer information)
- Limited ability of utilities to transform their networks in a short period of time
- Concerns over giving governments control over power using activities
- The cost benefit of projects

Given the uncertain nature of Smart Grid development E.L.K. Energy's strategy will be to adopt a very conservative approach to the implementation of Smart Grid projects.

1.5 Summary of Forecasted Expenditures

E.L.K. Energy has not forecasted any internal expenditure with respect to this REGIP Plan. All internal expenditures will be retained under the current rate structure.

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2 Detailed Assessment

2.1 Existing Conditions

As noted above, E.L.K. Energy distributes power from transformer stations owned by Hydro One. Potential constraints on renewable connections from a TS/DS perspective are:

- Thermal Capacity
- Short Circuit Capacity

From a distribution system perspective, potential constraints on renewable connections are:

- Distribution Feeder or Line Capacity
- Thermal Capacity

In terms of the E.L.K. Energy electricity distribution system, E.L.K. Energy has committed a long term strategy to rebuild most of its distribution infrastructure. The core of this strategy was to convert older 4.16 kV & 8.13kV distribution equipment to 27.6kV. This work usually encompasses replacing the older equipment (poles, transformers, and conductors) with equipment built to today's standards with increased clearances and capacities. This work is part of E.L.K. Energy's regular capital program.

To date, E.L.K. Energy has had no inquiries with respect to any renewable generation in excess of 500 kW. Given that renewable generation programs have been available for some time and have matured over a number of years it is likely that E.L.K. Energy Service Areas will not be a centre for large scale solar or wind projects. This being said, the focus in E.L.K. Energy will be FIT and microFIT projects (≤500 kW) which are of a much smaller scale than the large developments. E.L.K. Energy sees restrictions in the near future in the development of FIT and microFIT projects as several of our feeders are nearing the 7% or 10% peak feeder values.

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There may however, be limitations with respect to the transmission and distribution stations owned by HO. E.L.K. Energy will continue to offer microFIT connections until formally notified otherwise by HO. FIT connections are subject to impact assessments which will identify any issues prior to an offer to connect being issued.

There are no expenditures included in E.L.K. Energy's cost of service application for renewable generation.

E.L.K. Energy has established limits for the amount of generation on each of its seven 27.6kV M class feeders and two 8.13kV F class feeders. These capacities are based on 10% and 7% respectively of the feeders peak load. The Peak Load and Available Generation Capacity is noted in Table 1 below:

Table 1:

Station	Feeder	Voltage (kV)	Peak Load (kW)	Capacity Allowance (%)	Generation Capacity (kW)	Existing Generation (kW)	Available Generation Capacity (kW)	Known FIT Projects (kW)
Belle River TS	M4	27.6	7697	10	770	485.83	284.17	859.65
Haycroft DS	F3	8.13	1402	7	98	80	0	10
Kingsville TS	M1	27.6	9927	10	993	0	993	133
Kingsville TS	M5	27.6	17566	10	1757	0	1757	1,177.41
Kingsville TS	M7	27.6	12225	10	1223	0	1223	520
Kingsville TS	M10	27.6	2,126	10	213	249.5	0	472.175
Lauzon TS	M24	27.6	7,888	10	789	31.2	757.8	195
Lauzon TS	M29	27.6	8,824	10	882	7.41	874.59	190

The feeder capacities are subject to change due to ongoing connections.

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2.2 Distribution System Development to Enable Renewable Generation Connections

Renewable connections over the next five years have been estimated using 2014 and 2015's application and connection experience. As E.L.K. Energy connected several microFIT clusters prior to this time frame, those results would skew the estimate if used. The estimated number of connections from 2016 onward and the actual connections through 2015 is as shown below in Table 2.

Table 2:

Type of Project	2014	2015	2016	2017	2018	2019	2020
microFIT Solar PV-≤10kW	7	8	6	6	6	6	6
microFIT Wind-≤10kW	0	0	1	0	0	0	0
FIT->10kW-≤250kW	2	0	2	1	1	1	1
FIT->250kW-≤500kW	1	1	1	0	1	0	1

It is anticipated that the above connections will be able to be connected using E.L.K. Energy's standard connection procedures.

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The estimated generation by type of project is indicated in Table 3 below:

Table 3:

Type of Project	2014	2015	2016	2017	2018	2019	2020
microFIT Solar PV-≤10kW	59	26.7	34.28	34.28	34.28	34.28	34.28
microFIT Wind-≤10kW	0	0	0	0	0	0	0
FIT->10kW-≤250kW	260	0	340	200	200	200	200
FIT->250kW-≤500kW	450	470	370	0	500	0	500

In Table 3, all values are in kW. For microFIT Solar PV the average of 5.71kW per installation (from 2014 & 2015) was used to forecast future values. The microFIT clusters were not included in the forecast.

From a distribution perspective it is expected that all future projects in the five year horizon (Table 3) will be able to be connected with available capacity providing the projects are located in E.L.K. Energy's service areas with remaining capacities.

2.3 Renewable Connection Project Costs

E.L.K. Energy's microFIT projects primarily involved changes to metering only, standard connection. To date the average cost for a standard microFIT renewable connection has been $565 of which the customer contributed 100% (contributed capital). These connections involved changes to metering only. It is anticipated that future connections will be similar to E.L.K. Energy's experience to date.

In terms of FIT projects, costs are specific to each project and established on a per project basis.

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2.4 Renewable Connection Enablers

E.L.K. Energy is committed to establishing a customer friendly process which enables and promotes the efficient connection of renewable generation to the distribution system. E.L.K. Energy plans to modify its web based processes to help generators find the information they need to plan their project and to enable a seamless web application experience.

The number of applications and subsequent connections is not anticipated to require extra resources over and above what currently exists in E.L.K. Energy's organizational structure.

2.5 Smart Grid Development

E.L.K. Energy has been closely monitoring the development of Smart Grid projects in Ontario as well as other jurisdictions such as in the United States. Smart Grid development projects are for the most part in a discovery phase.

The feeders servicing E.L.K. Energy's service areas are all owned by Hydro One. E.L.K. Energy has care and control of certain feeders within E.L.K. Energy's licensed service area while the remaining feeders are under the care and control of HO.

HO's feeders within E.L.K. Energy's licensed service area transport E.L.K. Energy's metered electrons with load customers connected sporadically along said feeders. Presently, there is no opportunity for E.L.K. Energy to install any control or monitoring devices on these feeders. In total these feeders account for 75% of E.L.K. Energy's peak load and 68% of our customer base.

The three feeders within E.L.K. Energy's care and control service three communities. These feeders account for 16% of E.L.K. Energy's peak load and 32% of our customer base. By peak load these feeders account for 11%, 2% and 3% of E.L.K. Energy's peak load. By customer base these feeders account for 23%, 3% and 6% of E.L.K. Energy's customer base.

The feeder peak loads, customer base and LDC in control of the feeder is indicated in Table 4 below:

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Table 4:

Station	Feeder	Voltage (kV)	Peak Load (kW)	Approximate Customer Base	Feeder Controlled By	Peak Load (%)	Customer Base (%)
Belle River TS	M4	27.6	7697	2,650	E.L.K.	11%	23%
Haycroft DS	F3	8.13	1402	380	E.L.K.	2%	3%
Kingsville TS	M1	27.6	9927	1,100	Hydro One	15%	9%
Kingsville TS	M5	27.6	17566	3,300	Hydro One	26%	28%
Kingsville TS	M7	27.6	12225	200	Hydro One	18%	2%
Kingsville TS	M10	27.6	2126	750	E.L.K.	3%	6%
Lauzon TS	M24	27.6	7,888	1,600	Hydro One	12%	14%
Lauzon TS	M29	27.6	8,824	1,720	Hydro One	13%	15%

E.L.K. Energy's strategy will be to monitor development in the Smart Grid area and when sufficient progress is made in this area will evaluate projects on an individual basis as it may suit the needs of E.L.K. Energy's customers. Before projects can be undertaken a full cost benefit analysis must be completed.

It is anticipated that costs to monitor and keep up to date with Smart Grid development will be contained within E.L.K. Energy's existing cost structure.

3 Regional Planning

3.1 Planning In Consultation With Third Parties

Chapter 5 implements the Board's policy direction on 'an integrated approach to distribution network planning'. Regional planning is conducted through the Integrated Regional Resource Planning (IRRP) process, whereby local stakeholders collaborate in the development of integrated solutions for maintaining a reliable supply of electricity to Ontario communities. The regional planning process begins with a needs assessment performed by the transmitter, which determines whether a regional plan is required or not. If a regional plan is required, the IESO then conducts a scoping assessment to determine whether a more comprehensive Integrated Regional Resource Plan is required (led by the IESO), or a more transmission - and distribution - focused Regional Infrastructure Plan is required (led by the transmitter).

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The objective of the IRRP process is to develop long-term electricity plans that thoughtfully integrate all relevant resource options, such as conservation and demand management, distributed generation, large-scale generation, transmission and distribution.

As of the current date, E.L.K. has contacted Hydro One in regard to the status of the Regional Planning Process. A response letter from Hydro One will follow as part of the DSP once received.

E.L.K. is part of the Windsor-Essex Region planning zone in Southern Ontario. The LDCs providing service to customers in the **Windsor-Essex** region include:

- E.L.K. Energy Inc.
- Entegrus Powerlines Inc.
- Enwin Utilities
- Essex Powerlines Corporation
- Hydro One Networks Inc.

A Regional Infrastructure Plan (RIP) and an Integrated Regional Resource Plan (IRRP) have been completed for E.L.K.'s service territory. E.L.K. is included in "Group 1", which is the first group in the regional planning prioritization. There were no REG investments identified in the RIP or the IRRP as such E.L.K. Energy has not included any REG investments in the DS Plan.

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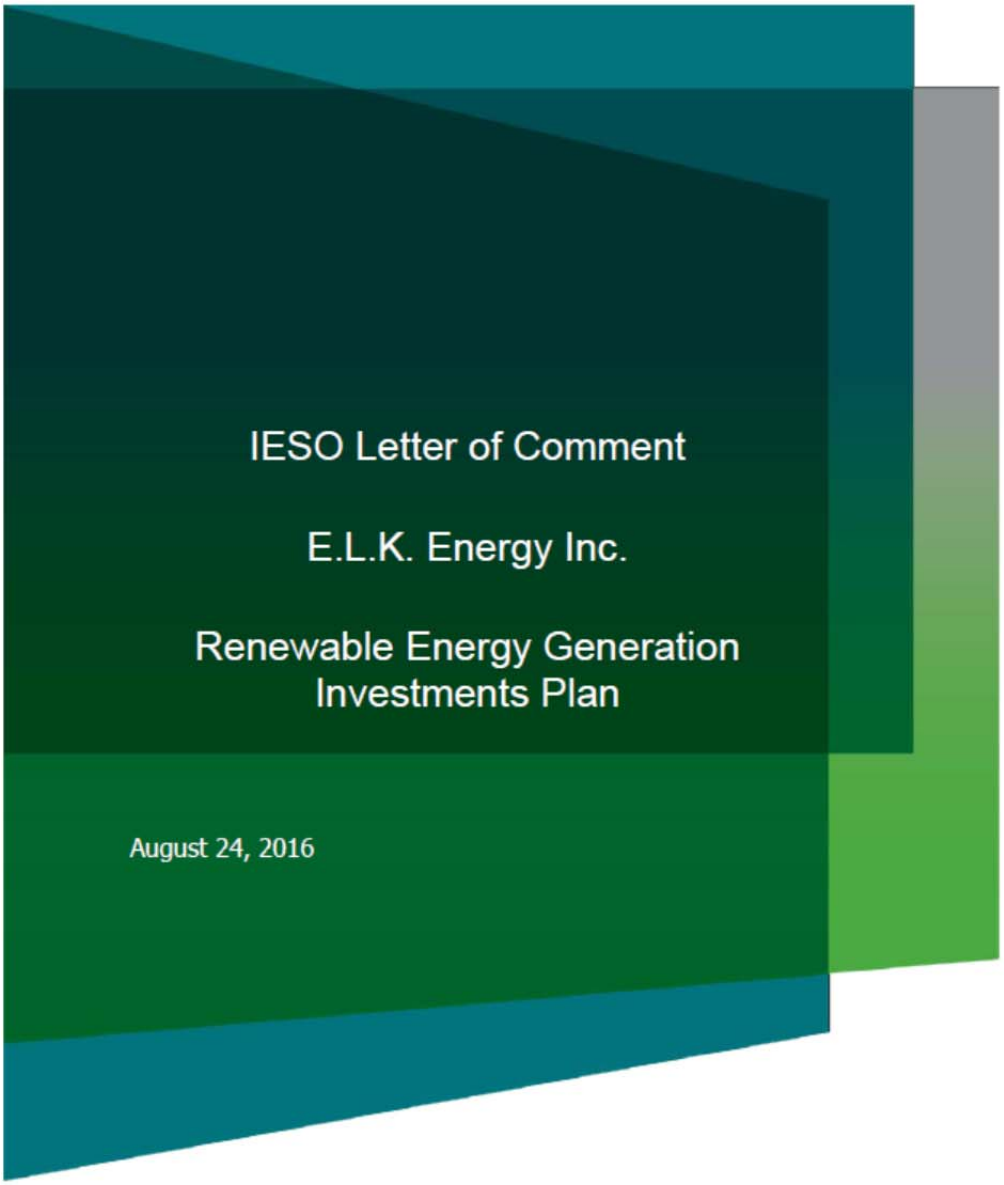
IESO LETTER OF COMMENT



Introduction

On March 28, 2013, the Ontario Energy Board ("the OEB" or "Board") issued its Filing Requirements for Electricity Transmission and Distribution Applications; Chapter 5 – Consolidated Distribution System Plan Filing Requirements (EB-2010-0377). Chapter 5 implements the Board's policy direction on 'an integrated approach to distribution network planning', outlined in the Board's October 18, 2012 Report of the Board - A Renewed Regulatory Framework for Electricity Distributors: A Performance Based Approach.

As outlined in the Chapter 5 filing requirements, the Board expects that the [Independent Electricity System Operator][1] ("[IESO]") comment letter will include:

- the applications it has received from renewable generators through the FIT program for connection in the distributor's service area;
- whether the distributor has consulted with the [IESO], or participated in planning meetings with the [IESO];
- the potential need for co-ordination with other distributors and/or transmitters or others on implementing elements of the Renewable Energy Generation ("REG") investments; and
- whether the REG investments proposed in the DS Plan are consistent with any Regional Infrastructure Plan.

E.L.K. Energy Inc. – Distribution System ("DS") Plan

On July 29, 2016, the IESO received a 5-year (2016-2020) REG Investments Plan ("Plan") from E.L.K. Energy Inc. ("E.L.K. Energy"). The IESO has reviewed the Plan and provides the following comments.

IESO FIT/microFIT Applications Received

As at the end of 2015, the Plan indicates that E.L.K. Energy has connected 139 microFIT projects, and 5 FIT projects. E.L.K. Energy has forecast an additional 34.28 kW from potential microFIT projects connecting in each of the 5 years of the Plan, as well as 340 kW in 2016 and 200 kW in each subsequent year (2017-2020). No REG investments are included as part of E.L.K. Energy's DS Plan.

According to the IESO's information as of June 30, 2016, the IESO has offered contracts to 142 microFIT projects totalling 1,242 kW of capacity, all of which have reached commercial operation. The IESO has also offered contracts to 11 FIT projects totalling 2,959 kW of capacity, of which 5 projects, totalling 1,729 kW have reached commercial operation. The REG connections information in E.L.K. Energy's Plan is therefore substantially consistent with that of the IESO.

[1] On January 1, 2015, the Ontario Power Authority ("OPA") merged with the Independent Electricity System Operator ("IESO") to create a new organization that will combine the OPA and IESO mandates. The new organization is called the Independent Electricity System Operator.

Independent Electricity System Operator
1600 – 120 Adelaide Street West, Toronto, ON M5H 1T1
t 416 967-7474 f 416 967-1947 toll free 1-800-797-9604 customer.relations@ieso.ca www.ieso.ca

Consultation / Participation in Planning Meetings; Coordination with Distributors / Transmitters / Others; Consistency with Regional Plans

E.L.K. Energy is one of the five local distribution companies in the Windsor-Essex Region identified through the OEB regional planning process. As member of the Technical Working Group for the Windsor-Essex Region, E.L.K. Energy has been involved in the development of the Windsor-Essex Region Integrated Regional Resource Plan ("IRRP"), which was published in April 2015.[2] On December 22, 2015, Hydro One Networks Inc. published a Regional Infrastructure Plan ("RIP") for this region in which E.L.K. Energy participated as a member of the Working Group.[3]

The regional planning process for this region is now complete and will be undertaken again when the next 5-year planning cycle commences, unless there is sufficient load growth, or an event that triggers the requirement to initiate the regional planning process earlier.

The IESO appreciates the opportunity to comment on the REG Investments Plan provided by E.L.K. Energy, as part of its DS Plan at this time.

[2] http://www.ieso.ca/Documents/Regional-Planning/Windsor_Essex/2015-Windsor-Essex-IRRP-Report.pdf
[3] http://www.hydroone.com/RegionalPlanning/Windsor-Essex/Documents/RIP%20Report%20Windsor-Essex.pdf

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