

Kitchener-Wilmot Hydro Inc.

2014 COS Application Application

EB-2013-0147

Rates Effective: January 1, 2014

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Kitchener-Wilmot Hydro Inc.

301 Victoria Street

P.O. Box 9010

Kitchener, ON

N2G 4L2

Appendix A

10 Year Capital Expenditures Forecast 2013 - 2022

2013-2022 CAPITAL EXPENDITURES FORECAST

ESTIMATED EXPENDITURES (x \$1000) (in 2013 dollars - no inflation)

DESCRIPTION	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BUILDINGS AND LAND										
301 Victoria St. S. Expansion	1,147.0									
Gas Tank Replacement & Paving		350.0								
Land Acquisition		1,000.0								
Subtotal	1,147.0	1,350.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
TRANSFORMATION FACILITIES										
Misc Transformer Station Upgrades & Modifications	221.2	87.0	200.0	400.0	300.0	500.0	500.0	500.0	500.0	500.0
#9TS Spare Transformer	513.9									
T99 Transformer Rewind	1,095.6									
P&C and Switchgear Upgrades at Various Stations	1,035.1	921.0	900.0	1,700.0	2,200.0	1,800.0	700.0	700.0		
#5TS Replace Power Transformers								800.0	1,000.0	4,500.0
Subtotal	2,865.8	1,008.0	1,100.0	2,100.0	2,500.0	2,300.0	1,200.0	2,000.0	1,500.0	5,000.0
POLE LINES										
Misc Overhead Distribution	775.0	700.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
System Expansion to Supply New Development	350.0	300.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
Relocations Due to Roadway Modification Projects	1,155.0	1,200.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
Replacement of Pole Line Assets Due to Age/Condition	2,216.2	2,575.0	2,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0
27.6 kV Voltage Conversion	430.0	550.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
Innovation and Reliability		250.0	350.0	450.0	450.0	450.0	450.0	450.0	450.0	450.0
Subtotal	4,926.2	5,575.0	5,300.0	6,400.0	6,400.0	6,400.0	6,400.0	6,400.0	6,400.0	6,400.0
UNDERGROUND DUCTS AND CABLES										
Misc Underground Distribution	450.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
System Expansion to Supply New Development	300.0	200.0	250.0	275.0	275.0	275.0	275.0	275.0	275.0	275.0
Installation of New Residential UG Services	450.0	450.0	475.0	475.0	500.0	500.0	500.0	500.0	500.0	500.0
Installation of Commercial, Industrial & Apartment Services	350.0	350.0	375.0	375.0	400.0	400.0	400.0	400.0	400.0	400.0
Installation of New Underground Residential Distribution	2,200.0	2,250.0	2,500.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0
Relocations Due to Roadway Modifications	3,443.7	3,944.1	2,650.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
Replacement of Primary Cables Due to Age/Condition	250.0	250.0	250.0	500.0	750.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
Rebuild Transformer Vaults				250.0	250.0	250.0	250.0	250.0	250.0	250.0
27.6 kV Voltage Conversion	50.0	220.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Subtotal	7,493.7	8,164.1	7,100.0	5,425.0	5,725.0	5,975.0	5,975.0	5,975.0	5,975.0	5,975.0
DISTRIBUTION TRANSFORMERS										
Installation & Replacement of Distribution Transformers	725.0	800.0	775.0	925.0	925.0	925.0	925.0	925.0	925.0	925.0
Installation of New URD Transformers	485.0	475.0	525.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
Overhead Transformer Purchases	444.6	444.6	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
Commercial, Industrial & Apartment Transformer Purchases	378.5	358.0	400.0	400.0	435.0	435.0	435.0	435.0	435.0	435.0
URD Transformer Purchases	688.6	657.1	730.0	820.0	820.0	820.0	820.0	820.0	820.0	820.0
Network Transformer Purchases	341.2	192.1	195.0	230.0	230.0	160.0	230.0	230.0	230.0	230.0
Subtotal	3,062.9	2,926.8	3,125.0	3,465.0	3,500.0	3,430.0	3,500.0	3,500.0	3,500.0	3,500.0
REVENUE METERS	690.0	612.0	550.0	450.0	450.0	450.0	450.0	450.0	450.0	450.0
OFFICE EQUIPMENT	90.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
INFORMATION TECHNOLOGY	739.0	720.0	750.0	750.0	800.0	800.0	800.0	800.0	800.0	800.0
VEHICLES	890.0	920.0	925.0	950.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
TOOLS & EQUIPMENT	88.4	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TOTAL	21,993.0	21,435.9	19,270.0	19,960.0	20,795.0	20,775.0	19,745.0	20,545.0	20,045.0	23,545.0

Appendix B

Stations 10 Year Plan 2013 - 2022

APPENDIX B
Stations' Major Equipment 10 Year Plan
2013-2022

ID	Task Name	Est Cost	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	#4TS - Install Arc Resistance on Switchgear	\$1.1M										
2	#9TS Spare Transformer	\$0.9M										
3	Engineering											
4	Manufacture and Install Transformer											
5	#7TS T14 Failure											
6	Move & Install T99 as New T14	\$0.3M										
7	Repair Failed T14 & Install as T99	\$1.1M										
8	#5TS - Building Addition & P&C Replacement	\$3.5M										
9	Engineering											
10	Install New P&C Equipment											
11	#5TS - Install Arc Resistance on Switchgear	\$1.1M										
12	Upgrade SCADA TS Fibre Loop Communications - 1TS, 3TS, 4TS, 5TS, 6TS, 7TS & 8TS	\$0.2M										
13	Engineering											
14	Installation & Commissioning											
15	#6TS - P&C Replacement	\$2.0M										
16	Engineering											
17	Rewire & Test P&C Panels											
18	Replace 17 SF6 Breakers at 3TS, 5TS & 6TS	\$0.5M										
19	#7TS - P&C Replacement	\$1.5M										
20	Engineering											
21	Rewire & Test P&C Panels											
22	#1TS - P&C Replacement	\$1.0M										
23	Engineering											
24	Rewire & Test P&C Panels											
25	#7TS - Replace 13 SF6 Breakers	\$0.7M										
26	#5TS - Replace Power Transformers	\$6.0										
27	Engineering											
28	Manufacture Transformers											
29	Install P&C Changes											
30	Install Transformers											
31	TOTALS FOR MAJOR EQUIPMENT	\$19.9M	2.7	1.0	0.9	1.7	2.2	1.8	0.7	1.5	1.0	4.5
32	Misc. Small Projects		0.3	0.1	0.2	0.4	0.3	0.5	0.5	0.5	0.5	0.5
33												
34	TOTALS (\$M)		3.0	1.1	1.1	2.1	2.5	2.3	1.2	2.0	1.5	5.0

Expansions of #8TS and #7TS postponed to 2024 and 2030 respectively, as predicted by current Mid-growth Load Forecast.