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Overview of Rate Base

Ex.2/Tab 1/Sch.1 - Rate Base Overview

The Rate Base used for the purpose of calculating the Revenue Requirement in this Application follows Chapter 2 of the Filing Requirements for Electricity Distribution Applications issued by the Ontario Energy Board ("OEB") on July 16th, 2015. Wasaga Distribution Inc.'s ("WDI") Rate Base is determined by taking the average of the balances at the beginning and the end of the 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 WDI 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%.

WDI was not previously directed by the OEB to undertake a lead/lag study.

WDI converted to Modified International Financial Reporting Standards ("MIFRS") on January 1, 2015 and has prepared this application under MIFRS. WDI has provided historical data for the years 2012, 2013 under CGAAP and WDI has presented 2014 data under both CGAAP and MIFRS.

WDI has reported PP&E under historical acquisition costs for regulatory purposes in accordance with Article 315 in the Accounting Procedure Handbook.

WDI adopted a change in capitalization and useful lives policies for their assets in 2012. This was submitted and approved during WDI's 2012 Cost of Service Application (EB-2011-0103). For the purpose of this Exhibit "NEW CGAAP" is herein referred to as "CGAAP".

The net fixed assets include those distribution assets associated with activities that enable the conveyance of electricity for distribution purposes. WDI does not have any non-distribution assets. Controllable expenses include operations and maintenance, billing and collecting and administration expenses.

This exhibit will compare historical data with the 2015 Bridge Year and 2016 Test Year

WDI has calculated its 2016 Test Year rate base to be $14,102,305. This rate base is also used to determine the proposed Revenue Requirement found at Exhibit 6. Table 2.1 illustrates WDI's Rate Base calculations for the test year.

Table 2.1: 2016 Test Year Rate Base

	MIFRS
Particulars	**2016**
Net Capital Assets in Service:	
Opening Balance	12,324,089
Ending Balance	12,996,573
Average Balance	12,660,331
Working Capital Allowance	1,441,974
Total Rate Base	**14,102,305**

	MIFRS
Expenses for Working Capital	**2016**
Eligible Distribution Expenses:	
3500-Distribution Expenses - Operation	77,011
3550-Distribution Expenses - Maintenance	795,181
3650-Billing and Collecting	1,027,236
3700-Community Relations	17,803
3800-Administrative and General Expenses	1,152,583
6105-Taxes other than Income Taxes	28,000
6205-Sub-account LEAP Funding	4,968
Total Eligible Distribution Expenses	3,102,782
3350-Power Supply Expenses	16,123,534
Total Expenses for Working Capital	19,226,316
Working Capital factor	7.5%
Total Working Capital Allowance	**1,441,974**

Ex.2/Tab 1/Sch.2 - Rate Base Trend

Table 2.2 presents WDI's Rate Base calculations for all required years including the 2016 Test Year. The year over year variance analysis follows this table.

Table 2.2: Rate Base Trend

	NEWGAAP	NEWGAAP	NEWGAAP	NEWGAAP	MIFRS	MIFRS
Particulars	**Last Board Approved**	**2012**	**2013**	**2014**	**2015**	**2016**
Net Capital Assets in Service:						
Opening Balance	9,818,321	9,818,321	10,682,115	11,353,857	11,940,197	12,324,089
Ending Balance	11,321,944	10,682,115	11,353,857	11,940,197	12,324,089	12,996,573
Average Balance	10,570,133	10,250,218	11,017,986	11,647,027	12,132,143	12,660,331
Working Capital Allowance	2,192,708	1,967,472	2,196,027	2,412,759	2,666,981	1,441,974
Total Rate Base	**12,762,840**	**12,217,690**	**13,214,013**	**14,059,786**	**14,799,125**	**14,102,305**

	NEWGAAP	NEWGAAP	NEWGAAP	NEWGAAP	MIFRS	MIFRS
Expenses for Working Capital	**Last Board Approved**	**2012**	**2013**	**2014**	**2015**	**2016**
Eligible Distribution Expenses:						
3500-Distribution Expenses - Operation	49,002	74,969	68,206	56,210	72,958	77,011
3550-Distribution Expenses - Maintenance	638,821	730,688	708,240	720,468	755,540	795,181
3650-Billing and Collecting	881,150	1,005,998	861,285	941,897	993,050	1,027,236
3700-Community Relations	9,800	11,652	4,804	7,473	10,803	17,803
3800-Administrative and General Expenses	965,963	966,301	1,053,974	1,087,760	1,113,967	1,152,583
6105-Taxes other than Income Taxes	25,000	24,670	26,361	27,199	27,500	28,000
6205-Sub-account LEAP Funding	4,500	4,460	4,762	4,762	4,762	4,968
Total Eligible Distribution Expenses	2,574,236	2,818,738	2,727,632	2,845,769	2,978,580	3,102,782
3350-Power Supply Expenses	13,087,961	11,234,636	12,958,277	14,388,222	16,071,287	16,123,534
Total Expenses for Working Capital	15,662,197	14,053,374	15,685,909	17,233,991	19,049,867	19,226,316
Working Capital factor	14%	14%	14%	14%	14%	7.5%
Total Working Capital Allowance	**2,192,708**	**1,967,472**	**2,196,027**	**2,412,759**	**2,666,981**	**1,441,974**

The Rate Base for the 2016 Test Year has been forecasted to decrease by $696,820 (-4.71%) over the 2015 Bridge Year. Furthermore, the Rate Base for the 2016 Test Year has been forecasted to have increased by $1,339,465 (10.50%) over the last Board Approved Rate Base. The reason for the variances between the 2016 Test Year and 2012 last Board Approved is mainly attributed to:

- The decrease in the working capital allowance rate has reduced the Rate Base by approximately $1.25 million. The decrease is mostly attributed to the decrease in the working capital rate of 7.5% from 14% as approved during WDI's 2012 settlement agreement.
- Annual changes in cost of power and increases in OM&A expenses. WDI has forecasted an increase in Power Supply Expenses of $3,035,573 and Eligible Distribution Expenses of $528,546 since the last Board Approved Rate Base.
- The average net capital assets in service added since the last Board Approved Rate Base has surpassed the amortization expense by $2,090,198. The main driver behind this is the decrease in useful lives, approved in WDI's 2012 Cost of Service application (EB-2011-0103) that had resulted in a decrease in depreciation expense. This is reflected through WDI's average capital expenditures from 2012 Actual – 2016 Test Year of $1,246,977 average depreciation expense of $578,583. Details of these additions are discussed in length in the Distribution System Plan.

Ex.2/Tab 1/Sch.3 - Rate Base Variance Analysis

The following paragraphs and Tables 2.3 to 2.7 provide a narrative on the changes that have driven the increase in rate base since WDI's 2012 Board Approved Cost of Service Application.

WDI's materiality threshold is $50,000

WDI has provided the following variances on the change on Rate Base:

- 2016 Test Year (MIFRS) against 2015 Bridge Year (MIFRS)
- 2015 Bridge Year (MIFRS) against 2014 Actual (MIFRS)
- 2104 Actual (MIFRS) against 2014 Actual (CGAAP)
- 2014 Actual (CGAAP) against 2013 Actual (CGAAP)
- 2013 (CGAAP) against 2012 (CGAAP)
- 2012 (CGAAP) against 2012 Board Approved (CGAAP)

2016 Test Year (MIFRS) vs. 2015 Bridge Year (MIFRS):

Table 2.3: 2016-2015 Rate Base Variances

	MIFRS			
Particulars	**2016**	**2015**	**Variance**	**%**
Net Capital Assets in Service:				
Opening Balance	12,324,089	11,940,197	383,892	3.2%
Ending Balance	12,996,573	12,324,089	672,484	5.5%
Average Balance	12,660,331	12,132,143	528,188	4.4%
Working Capital Allowance	1,441,974	2,666,981	(1,225,007)	-45.9%
Total Rate Base	**14,102,305**	**14,799,125**	**- 696,820**	**-4.7%**

The total projected Rate Base in 2016 of $14,102,305 is $696,820 or -4.7% less than 2015. The main reason for the variance is:

- The working capital allowance saw a decrease due to the reduction in rate from 14% to 7.5%. This resulted in a decrease in the rate base by approximately $1.25 million.
- The average net capital assets in service (including capital contributions) are approximately $500,000 higher than the amortization expense. The results in approximately $500,000 increase in the rate base.

- In 2016, the utility's investment in its distribution system is required in order to keep the system running in a safe and reliable manner significant projects include a Pole Line expansion to meet the development proposed in Sunnidale Trails and Overhead Plant replacement strategy, discussed further in WDI's Distribution System Plan
- The rest of the increase can be attributed to regular maintenance of the distribution system.

2015 Bridge Year (MIFRS) vs. 2014 Actual (MIFRS):

Table 2.4: 2015-2014 Rate Base Variances

	MIFRS			
Particulars	**2015**	**2014**	**Variance**	**%**
Net Capital Assets in Service:				
Opening Balance	11,940,197	11,353,857	586,340	5.2%
Ending Balance	12,324,089	11,940,197	383,892	3.2%
Average Balance	12,132,143	11,647,027	485,116	4.2%
Working Capital Allowance	2,666,981	2,412,759	254.222	9.5%
Total Rate Base	**14,799,125**	**14,059,786**	**739,339**	**5.0%**

The total projected Rate Base in 2015 of $14,799,125 is $739,339 or 5.0% greater than 2014. The main reason for the variance is:

- The average net capital assets in service (including capital contributions) are approximately $500,000 higher than the amortization expense. The results in approximately $500,000 increase in the rate base. Significant investments include a Pole Line expansion to meet the development proposed in Sunnidale Trails (multi-year project) and Overhead Plant replacement strategy, discussed further in WDI's Distribution System Plan.
- The rest of the increase can be attributed to regular maintenance of the distribution system.
- The working capital allowance saw an increase proportional to the increase in OM&A. Details of the OM&A expenditures are presented at Exhibit 4.

2014 Actual (MIFRS) vs. 2014 Actual (CGAPP):

Table 2.5: 2014 MIFRS - 2014 CGAAP Rate Base Variances

Particulars	2014 MIFRS	2014 CGAAP	Variance	%
Net Capital Assets in Service:				
Opening Balance	11,353,857	11,353,857	-	-
Ending Balance	11,940,197	11,940,197	-	-
Average Balance	11,647,027	11,647,027	-	-
Working Capital Allowance	2,412,759	2,412,759	-	-
Total Rate Base	**14,059,786**	**14,059,786**	**-**	**-**

There was no change in WDI's Rate Base on conversion to MIFRS.

2014 Actual (CGAAP) vs. 2013 Actual (CGAAP):

Table 2.6: 2014-2013 Rate Base Variances

	CGAAP			
Particulars	**2014**	**2013**	**Variance**	**%**
Net Capital Assets in Service:				
Opening Balance	11,353,857	10,682,115	671,742	6.29%
Ending Balance	11,940,197	11,353,857	586,340	5.16%
Average Balance	11,647,027	11,017,986	629,041	5.71%
Working Capital Allowance	2,412,759	2,196,027	216,732	9.87%
Total Rate Base	**14,059,786**	**13,214,013**	**845,773**	**6.40%**

The total projected Rate Base in 2014 of $14,059,786 is $845,773 or 6.4% greater than 2013. The main reason for the variance is:

- The average net capital assets in service (including capital contributions) are approximately $600,000 higher than the amortization expense. The results in approximately $600,000 increase in the rate base. Significant investments in the River Road West Widening project and the MS#2 repurchase discussed further in WDI's Distribution System Plan.
- Power Supply Expenses increased by $1,429,945 which is 11% higher than 2013.
- Regular maintenance of the distribution system.
- The working capital allowance saw an increase proportional to the increase in OM&A. Details of the OM&A expenditures are presented at Exhibit 4.

2013 Actual (CGAAP) vs. 2012 Actual (CGAAP):

Table 2.7: 2013-2012 Rate Base Variances

	CGAAP			
Particulars	**2013**	**2012**	**Variance**	**%**
Net Capital Assets in Service:				
Opening Balance	10,682,115	9,818,321	863,794	8.80%
Ending Balance	11,353,857	10,682,115	671,742	6.29%
Average Balance	11,017,986	10,250,218	767,768	7.49%
Working Capital Allowance	2,196,027	1,967,472	228,555	11.62%
Total Rate Base	**13,214,013**	**12,217,690**	**996,323**	**8.15%**

The total projected Rate Base in 2013 of $13,214,013 is $996,323 or 8.15% greater than 2012. The main reason for the variance is:

- The average net capital assets in service (including capital contributions) are approximately $800,000 higher than the amortization expense. The results in approximately $800,000 increase in the rate base. Significant investments include the completion of the Service Centre Building upgrade of $464,754.
- Power Supply Expenses increased by $1,723,640 which is 15.3% higher than 2013.
- Regular maintenance of the distribution system.
- The working capital allowance saw an increase proportional to the increase in OM&A. Details of the OM&A expenditures are presented at Exhibit 4.

2012 Actual (CGAAP) vs. 2012 Board-Approved (CGAAP):

Table 2.8: 2012 Actual - 2012 Board Approved Rate Base Variance

	CGAAP			
Particulars	**2012**	**Last Board Approved**	**Variance**	**%**
Net Capital Assets in Service:				
Opening Balance	9,818,321	9,818,321	-	0.00%
Ending Balance	10,682,115	11,321,944	(639,829)	5.65%
Average Balance	10,250,218	10,570,133	(319,914)	3.03%
Working Capital Allowance	1,967,472	2,192,708	(225,236)	10.27%
Total Rate Base	**12,217,690**	**12,762,841**	**(545,150)**	**4.27%**

Lastly, 2012 Actuals vs 2012 Board Approved shows a slight decrease in average net fixed assets. The 2012 Actual Rate Base of $12,217,690 is $545,150 lesser or 4.27% lesser than the 2012 Board Approved. The significant variance can be attributed to:

- Capital Investments in the 2012 last Board Approved included the Service Centre Building upgrade, and a new Primary metering point. These projects encountered delays nearing completion. This is reflected in the 2012 construction in progress (WIP) balance of $376,814 as at December 31, 2012; these projects were completed in 2013. The overall cost for the Service Centre was $464,754 and $97,995 for the new Primary metering point.
- Power Supply Expense was significantly lower than projected. The main driver for this was WDI's forecasted metered kWh's in the 2012 Board Approved were approximately 3.2% higher than 2012 Actual metered kWh's. This was impacted by the overall weather conditions for 2012.

Ex.2/Tab 1/Sch.4 – Fixed Asset Continuity Schedule

This Schedule presents a continuity schedule of its investment in capital assets, the associated accumulated amortization and the net book value for each Capital USoA account for the 2012 Historic Year, 2013 Historic Year, 2014 Historic Year, 2015 Bridge Year and 2016 Test Year. WDI attests that the continuity statements reconcile with the calculated depreciation expenses, under Exhibit 4 – Operating Costs, and presented by asset account.

Upon the date of IFRS adoption, Customer Contributions are no longer recorded in Account 1995 Contributions & Grants, but are recorded in Account 2440, Deferred Revenue and amortized to revenue over the service life of the related asset. For the purpose of Cost Allocation, and continuity within this application, WDI has included Account 2240 in the Continuity Schedules to track Contributed Capital forecast for the 2015 Bridge Year and 2016 Test Year. This is consistent with the Boards required treatment.

WDI's transition to IFRS has resulted in no impact to WDI's rate base.

WDI disposes of assets in accordance with IFRS. WDI has used a 3-year average from 2012-2014 to determine the disposal of assets for the 2015 Bridge and 2016 Test year. WDI has adjusted this amount in the 2016 Test year to reflect the Smart Meter replacement, Pole Replacement, and Transformer Replacement programs, as discussed in the DSP. Individually, the losses on disposals are not material.

The following Tables are Board Appendix 2-BA for the 2012, 2013 and 2014 Actuals in CGAAP, and 2014 Actuals, 2015 Bridge Year, and 2016 Test Year in MIFRS.

Appendix 2-BA

Fixed Asset Continuity Schedule [1]

Accounting Standard CGAAP
Year 2012

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 51,375	$ 89,000		$ 140,375	-$ 9,607	-$ 9,343		-$ 18,949	$ 121,426
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512			$ 5,512	-$ 5,512			-$ 5,512	$ -
N/A	1805	Land	$ 121,775			$ 121,775				$ -	$ 121,775
47	1808	Buildings				$ -				$ -	$ -
13	1810	Leasehold Improvements				$ -				$ -	$ -
47	1815	Transformer Station Equipment >50 kV				$ -				$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,358,633	-$ 114,220		$ 3,244,414	-$ 913,789	-$ 29,385		-$ 943,173	$ 2,301,241
47	1825	Storage Battery Equipment				$ -				$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 3,153,339	$ 330,497	-$ 6,765	$ 3,477,071	-$ 1,999,850	-$ 82,913	$ 6,004	-$ 2,076,758	$ 1,400,313
47	1835	Overhead Conductors & Devices	$ 3,515,888	$ 319,174		$ 3,835,061	-$ 2,130,237	-$ 81,214		-$ 2,211,451	$ 1,623,610
47	1840	Underground Conduit	$ 268,601	$ 1,797		$ 270,398	-$ 38,141	-$ 4,956		-$ 43,097	$ 227,301
47	1845	Underground Conductors & Devices	$ 5,015,219	$ 112,700		$ 5,127,919	-$ 2,231,847	-$ 147,675		-$ 2,379,522	$ 2,748,397
47	1850	Line Transformers	$ 4,049,391	$ 217,045	-$ 5,151	$ 4,261,286	-$ 2,092,868	-$ 66,611	$ 4,958	-$ 2,154,521	$ 2,106,765
47	1855	Services (Overhead & Underground)	$ 3,608,742	$ 282,236		$ 3,890,979	-$ 1,918,062	-$ 73,326		-$ 1,991,388	$ 1,899,591
47	1860	Meters	$ 4,336	$ 114,220		$ 118,555	-$ 87	-$ 55,570		-$ 55,656	$ 62,899
47	1860	Meters (Smart Meters)	$ 1,646,261	$ 90,639	-$ 70,001	$ 1,666,899	-$ 242,095	-$ 113,015	$ 13,727	-$ 341,383	$ 1,325,516
N/A	1905	Land	$ 382,467	$ 106,866		$ 489,333	$ -			$ -	$ 489,333
47	1908	Buildings & Fixtures	$ 1,014,876	$ 6,393		$ 1,021,270	-$ 361,291	-$ 19,830		-$ 381,121	$ 640,149
13	1910	Leasehold Improvements				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (10 years)				$ -				$ -	$ -
8	1915	Office Furniture & Equipment (5 years)				$ -				$ -	$ -
10	1920	Computer Equipment - Hardware				$ -				$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)				$ -				$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)				$ -				$ -	$ -
10	1930	Transportation Equipment				$ -				$ -	$ -
8	1935	Stores Equipment				$ -				$ -	$ -
8	1940	Tools, Shop & Garage Equipment				$ -				$ -	$ -
8	1945	Measurement & Testing Equipment				$ -				$ -	$ -
8	1950	Power Operated Equipment				$ -				$ -	$ -
8	1955	Communications Equipment				$ -				$ -	$ -
8	1955	Communication Equipment (Smart Meters)				$ -				$ -	$ -
8	1960	Miscellaneous Equipment				$ -				$ -	$ -
47	1970	Load Management Controls Customer Premises				$ -				$ -	$ -
47	1975	Load Management Controls Utility Premises				$ -				$ -	$ -
47	1980	System Supervisor Equipment		$ 40,942		$ 40,942	$ -	-$ 2,047		-$ 2,047	$ 38,895
47	1985	Miscellaneous Fixed Assets				$ -				$ -	$ -
47	1990	Other Tangible Property				$ -				$ -	$ -
47	1995	Contributions & Grants	-$ 5,377,446	-$ 251,752		-$ 5,629,198	$ 942,735	$ 136,581		$ 1,079,316	-$ 4,549,881
47	2440	Deferred Revenue[5]				$ -				$ -	$ -
	2055	Capital Lease		$ 126,793		$ 126,793		-$ 2,007		-$ 2,007	$ 124,786
						$ -				$ -	$ -
		Sub-Total	**$ 20,818,970**	**$ 1,472,332**	**-$ 81,917**	**$ 22,209,384**	**-$ 11,000,650**	**-$ 551,309**	**$ 24,690**	**-$ 11,527,269**	**$ 10,682,115**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 20,818,970**	**$ 1,472,332**	**-$ 81,917**	**$ 22,209,384**	**-$ 11,000,650**	**-$ 551,309**	**$ 24,690**	**-$ 11,527,269**	**$ 10,682,115**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 551,309**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*	
Transportation	
Stores Equipment	
Net Depreciation	-$ 551,309

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Appendix 2-BA
Fixed Asset Continuity Schedule [1]

Accounting Standard CGAAP
Year 2013

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 140,375			$ 140,375	-$ 18,949	-$ 13,779		-$ 32,728	$ 107,647
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512			$ 5,512	-$ 5,512			-$ 5,512	$ -
N/A	1805	Land	$ 121,775			$ 121,775	$ -			$ -	$ 121,775
47	1808	Buildings	$ -			$ -	$ -			$ -	$ -
13	1810	Leasehold Improvements	$ -			$ -	$ -			$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -			$ -	$ -			$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,244,414	$ 84,606	$ -	$ 3,329,020	-$ 943,173	-$ 81,389		-$ 1,024,562	$ 2,304,458
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -			$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 3,477,071	$ 102,449	$ -	$ 3,579,521	-$ 2,076,758	-$ 87,253		-$ 2,164,012	$ 1,415,509
47	1835	Overhead Conductors & Devices	$ 3,835,061	$ 120,402	$ -	$ 3,955,463	-$ 2,211,451	-$ 85,887		-$ 2,297,338	$ 1,658,125
47	1840	Underground Conduit	$ 270,398	$ 40,363	$ -	$ 310,761	-$ 43,097	-$ 5,364		-$ 48,461	$ 262,300
47	1845	Underground Conductors & Devices	$ 5,127,919	$ 320,215	$ -	$ 5,448,134	-$ 2,379,522	-$ 154,491		-$ 2,534,013	$ 2,914,121
47	1850	Line Transformers	$ 4,261,286	$ 295,560	-$ 20,237	$ 4,536,609	-$ 2,154,521	-$ 72,464	$ 12,472	-$ 2,214,514	$ 2,322,095
47	1855	Services (Overhead & Underground)	$ 3,890,979	$ 344,725	$ -	$ 4,235,704	-$ 1,991,388	-$ 82,081		-$ 2,073,469	$ 2,162,235
47	1860	Meters	$ 118,555	$ 99,255	$ -	$ 217,810	-$ 55,656	-$ 4,907		-$ 60,563	$ 157,247
47	1860	Meters (Smart Meters)	$ 1,666,899	$ 61,033	$ -	$ 1,727,932	-$ 341,383	-$ 113,106		-$ 454,489	$ 1,273,443
N/A	1905	Land	$ 489,333	$ 28,421	$ -	$ 517,754	$ -	$ -		$ -	$ 517,754
47	1908	Buildings & Fixtures	$ 1,021,270	$ 464,754	$ -	$ 1,486,024	-$ 381,121	-$ 23,367		-$ 404,487	$ 1,081,536
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -			$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -			$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -			$ -	$ -	$ -	$ -	$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ -			$ -	$ -	$ -	$ -	$ -	$ -
10	1930	Transportation Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -			$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ 40,942	$ 6,130		$ 47,073	-$ 2,047	-$ 4,247	$ -	-$ 6,295	$ 40,778
47	1985	Miscellaneous Fixed Assets	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	-$ 5,629,198	-$ 723,515		-$ 6,352,713	$ 1,079,316	$ 167,460	$ -	$ 1,246,776	-$ 5,105,937
47	2440	Deferred Revenue[5]	$ -			$ -	$ -	$ -	$ -	$ -	$ -
	2055	Capital Lease	$ 126,793			$ 126,793	-$ 2,007	-$ 4,014	$ -	-$ 6,022	$ 120,772
						$ -				$ -	$ -
		Sub-Total	**$ 22,209,384**	**$ 1,244,398**	**-$ 20,237**	**$ 23,433,546**	**-$ 11,527,269**	**-$ 564,891**	**$ 12,472**	**-$ 12,079,688**	**$ 11,353,857**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 22,209,384**	**$ 1,244,398**	**-$ 20,237**	**$ 23,433,546**	**-$ 11,527,269**	**-$ 564,891**	**$ 12,472**	**-$ 12,079,688**	**$ 11,353,857**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 564,891**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*
Transportation
Stores Equipment
Net Depreciation -$ 564,891

1

Appendix 2-BA
Fixed Asset Continuity Schedule [1]

Accounting Standard CGAAP
Year **2014**

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 140,375	$ -	$ -	$ 140,375	-$ 32,728	-$ 13,779	$ -	-$ 46,508	$ 93,867
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512	$ -	$ -	$ 5,512	-$ 5,512	$ -	$ -	-$ 5,512	$ -
N/A	1805	Land	$ 121,775	$ -	$ -	$ 121,775	$ -	$ -	$ -	$ -	$ 121,775
47	1808	Buildings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,329,020	$ 51,785	$ -	$ 3,380,805	-$ 1,024,562	-$ 84,461	$ -	-$ 1,109,023	$ 2,271,782
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 3,579,521	$ 472,241	-$ 24,578	$ 4,027,184	-$ 2,164,012	-$ 93,292	$ 19,984	-$ 2,237,320	$ 1,789,865
47	1835	Overhead Conductors & Devices	$ 3,955,463	$ 61,106	-$ 7,212	$ 4,009,357	-$ 2,297,338	-$ 87,768	$ 6,807	-$ 2,378,299	$ 1,631,058
47	1840	Underground Conduit	$ 310,761	$ 31,180	$ -	$ 341,941	-$ 48,461	-$ 6,080	$ -	-$ 54,541	$ 287,400
47	1845	Underground Conductors & Devices	$ 5,448,134	$ 475,382	$ -	$ 5,923,516	-$ 2,534,013	-$ 167,751	$ -	-$ 2,701,765	$ 3,221,751
47	1850	Line Transformers	$ 4,536,609	$ 338,531	-$ 18,110	$ 4,857,030	-$ 2,214,514	-$ 80,278	$ 14,792	-$ 2,280,000	$ 2,577,031
47	1855	Services (Overhead & Underground)	$ 4,235,704	$ 343,053	$ -	$ 4,578,757	-$ 2,073,469	-$ 91,894	$ -	-$ 2,165,363	$ 2,413,394
47	1860	Meters	$ 217,810	$ 5,254	$ -	$ 223,065	-$ 60,563	-$ 6,892	$ -	-$ 67,455	$ 155,610
47	1860	Meters (Smart Meters)	$ 1,727,932	$ -	$ -	$ 1,727,932	-$ 454,489	-$ 115,316	$ -	-$ 569,805	$ 1,158,127
N/A	1905	Land	$ 517,754	$ 91,245	$ -	$ 608,998	$ -	$ -	$ -	$ -	$ 608,998
47	1908	Buildings & Fixtures	$ 1,486,024	$ 4,626	$ -	$ 1,490,650	-$ 404,487	-$ 28,060	$ -	-$ 432,547	$ 1,058,102
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ 47,073	$ -	$ -	$ 47,073	-$ 6,295	-$ 4,401	$ -	-$ 10,695	$ 36,377
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	-$ 6,352,713	-$ 684,999	$ 7,123	-$ 7,030,589	$ 1,246,776	$ 186,598	-$ 4,482	$ 1,428,892	-$ 5,601,697
47	2440	Deferred Revenue[5]	$ -			$ -	$ -	$ -	$ -	$ -	$ -
	2055	Capital Lease	$ 126,793			$ 126,793	-$ 6,022	-$ 4,014	$ -	-$ 10,036	$ 116,757
						$ -				$ -	$ -
		Sub-Total	**$ 23,433,546**	**$ 1,189,404**	**-$ 42,777**	**$ 24,580,173**	**-$ 12,079,688**	**-$ 597,388**	**$ 37,101**	**-$ 12,639,975**	**$ 11,940,197**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 23,433,546**	**$ 1,189,404**	**-$ 42,777**	**$ 24,580,173**	**-$ 12,079,688**	**-$ 597,388**	**$ 37,101**	**-$ 12,639,975**	**$ 11,940,197**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 597,388**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*
Transportation
Stores Equipment
Net Depreciation -$ 597,388

1
2

1

Appendix 2-BA
Fixed Asset Continuity Schedule [1]

Accounting Standard MIFRS
Year **2014**

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 140,375			$ 140,375	-$ 32,728	-$ 13,779	$ -	-$ 46,508	$ 93,867
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512			$ 5,512	-$ 5,512	$ -	$ -	-$ 5,512	$ -
N/A	1805	Land	$ 121,775			$ 121,775	$ -	$ -	$ -	$ -	$ 121,775
47	1808	Buildings	$ -			$ -	$ -	$ -	$ -	$ -	$ -
13	1810	Leasehold Improvements	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -			$ -	$ -	$ -	$ -	$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,329,020	$ 51,785	$ -	$ 3,380,805	-$ 1,024,562	-$ 84,461	$ -	-$ 1,109,023	$ 2,271,782
47	1825	Storage Battery Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 3,579,521	$ 472,241	-$ 24,578	$ 4,027,184	-$ 2,164,012	-$ 93,292	$ 19,984	-$ 2,237,320	$ 1,789,865
47	1835	Overhead Conductors & Devices	$ 3,955,463	$ 61,106	-$ 7,212	$ 4,009,357	-$ 2,297,338	-$ 87,768	$ 6,807	-$ 2,378,299	$ 1,631,058
47	1840	Underground Conduit	$ 310,761	$ 31,180	$ -	$ 341,941	-$ 48,461	-$ 6,080	$ -	-$ 54,541	$ 287,400
47	1845	Underground Conductors & Devices	$ 5,448,134	$ 475,382	$ -	$ 5,923,516	-$ 2,534,013	-$ 167,751	$ -	-$ 2,701,765	$ 3,221,751
47	1850	Line Transformers	$ 4,536,609	$ 338,531	-$ 18,110	$ 4,857,030	-$ 2,214,514	-$ 80,278	$ 14,792	-$ 2,280,000	$ 2,577,031
47	1855	Services (Overhead & Underground)	$ 4,235,704	$ 343,053	$ -	$ 4,578,757	-$ 2,073,469	-$ 91,894	$ -	-$ 2,165,363	$ 2,413,394
47	1860	Meters	$ 217,810	$ 5,254	$ -	$ 223,065	-$ 60,563	-$ 6,892	$ -	-$ 67,455	$ 155,610
47	1860	Meters (Smart Meters)	$ 1,727,932	$ -	$ -	$ 1,727,932	-$ 454,489	-$ 115,316	$ -	-$ 569,805	$ 1,158,127
N/A	1905	Land	$ 517,754	$ 91,245	$ -	$ 608,998	$ -	$ -	$ -	$ -	$ 608,998
47	1908	Buildings & Fixtures	$ 1,486,024	$ 4,626	$ -	$ 1,490,650	-$ 404,487	-$ 28,060	$ -	-$ 432,547	$ 1,058,102
13	1910	Leasehold Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	1930	Transportation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1935	Stores Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communications Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1980	System Supervisor Equipment	$ 47,073	$ -	$ -	$ 47,073	-$ 6,295	-$ 4,401	$ -	-$ 10,695	$ 36,377
47	1985	Miscellaneous Fixed Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1990	Other Tangible Property	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1995	Contributions & Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	2440	Deferred Revenue[5]	-$ 6,352,713	-$ 684,999	$ 7,123	-$ 7,030,589	$ 1,246,776	$ 186,598	-$ 4,482	$ 1,428,893	-$ 5,601,697
	2055	Capital Lease	$ 126,793	$ -	$ -	$ 126,793	-$ 6,022	-$ 4,014	$ -	-$ 10,036	$ 116,757
						$ -				$ -	$ -
		Sub-Total	**$ 23,433,546**	**$ 1,189,404**	**-$ 42,777**	**$ 24,580,173**	**-$ 12,079,688**	**-$ 597,388**	**$ 37,101**	**-$ 12,639,975**	**$ 11,940,198**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 23,433,546**	**$ 1,189,404**	**-$ 42,777**	**$ 24,580,173**	**-$ 12,079,688**	**-$ 597,388**	**$ 37,101**	**-$ 12,639,975**	**$ 11,940,198**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 597,388**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*
Transportation
Stores Equipment
Net Depreciation -$ 597,388

2

Appendix 2-BA
Fixed Asset Continuity Schedule [1]

Accounting Standard MIFRS
Year **2015**

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 140,375	$ 15,000		$ 155,375	-$ 46,508	-$ 14,535		-$ 61,043	$ 94,332
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512			$ 5,512	-$ 5,512			-$ 5,512	$ -
N/A	1805	Land	$ 121,775			$ 121,775	$ -			$ -	$ 121,775
47	1808	Buildings	$ -			$ -	$ -			$ -	$ -
13	1810	Leasehold Improvements	$ -			$ -	$ -			$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -			$ -	$ -			$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,380,805			$ 3,380,805	-$ 1,109,023	-$ 86,008		-$ 1,195,031	$ 2,185,774
47	1825	Storage Battery Equipment	$ -			$ -	$ -			$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 4,027,184	$ 270,000	-$ 10,448	$ 4,286,736	-$ 2,237,320	-$ 101,384	$ 8,663	-$ 2,330,041	$ 1,956,696
47	1835	Overhead Conductors & Devices	$ 4,009,357	$ 110,000	-$ 2,404	$ 4,116,953	-$ 2,378,299	-$ 89,707	$ 2,269	-$ 2,465,737	$ 1,651,216
47	1840	Underground Conduit	$ 341,941	$ -		$ 341,941	-$ 54,541	-$ 6,423		-$ 60,964	$ 280,977
47	1845	Underground Conductors & Devices	$ 5,923,516	$ 190,000		$ 6,113,516	-$ 2,701,765	-$ 179,170		-$ 2,880,934	$ 3,232,582
47	1850	Line Transformers	$ 4,857,030	$ 245,000	-$ 14,533	$ 5,087,498	-$ 2,280,000	-$ 87,693	$ 10,751	-$ 2,356,942	$ 2,730,556
47	1855	Services (Overhead & Underground)	$ 4,578,757	$ 355,000		$ 4,933,757	-$ 2,165,363	-$ 102,076		-$ 2,267,440	$ 2,666,318
47	1860	Meters	$ 223,065	$ 5,000		$ 228,065	-$ 67,455	-$ 6,993		-$ 74,448	$ 153,617
47	1860	Meters (Smart Meters)	$ 1,727,932	$ 85,000	-$ 61,954	$ 1,750,978	-$ 569,805	-$ 118,759	$ 28,919	-$ 659,645	$ 1,091,333
N/A	1905	Land	$ 608,998	$ -		$ 608,998	$ -			$ -	$ 608,998
47	1908	Buildings & Fixtures	$ 1,490,650	$ 120,000		$ 1,610,650	-$ 432,547	-$ 29,337		-$ 461,885	$ 1,148,765
13	1910	Leasehold Improvements	$ -	$ -		$ -	$ -			$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -		$ -	$ -			$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -		$ -	$ -			$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -		$ -	$ -			$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -		$ -	$ -			$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ -	$ -		$ -	$ -			$ -	$ -
10	1930	Transportation Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1935	Stores Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1955	Communications Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -		$ -	$ -			$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -		$ -	$ -			$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -		$ -	$ -			$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -		$ -	$ -			$ -	$ -
47	1980	System Supervisor Equipment	$ 47,073	$ -		$ 47,073	-$ 10,695	-$ 4,401		-$ 15,096	$ 31,977
47	1985	Miscellaneous Fixed Assets	$ -	$ -		$ -	$ -			$ -	$ -
47	1990	Other Tangible Property	$ -	$ -		$ -	$ -			$ -	$ -
47	1995	Contributions & Grants	$ -	$ -		$ -	$ -			$ -	$ -
47	2440	Deferred Revenue[5]	-$ 7,030,589	-$ 345,000		-$ 7,375,589	$ 1,428,893	$ 203,129		$ 1,632,022	-$ 5,743,568
	2055	Capital Lease	$ 126,793			$ 126,793	-$ 10,036	-$ 4,014		-$ 14,050	$ 112,743
						$ -				$ -	$ -
		Sub-Total	**$ 24,580,173**	**$ 1,050,000**	**-$ 89,338**	**$ 25,540,834**	**-$ 12,639,975**	**-$ 627,371**	**$ 50,602**	**-$ 13,216,745**	**$ 12,324,089**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 24,580,173**	**$ 1,050,000**	**-$ 89,338**	**$ 25,540,834**	**-$ 12,639,975**	**-$ 627,371**	**$ 50,602**	**-$ 13,216,745**	**$ 12,324,089**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 627,371**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*	
Transportation	
Stores Equipment	
Net Depreciation	-$ 627,371

1

2

3

Appendix 2-BA
Fixed Asset Continuity Schedule [1]

Accounting Standard MIFRS
Year **2016**

CCA Class [2]	OEB Account [3]	Description [3]	Cost				Accumulated Depreciation				Net Book Value
			Opening Balance	Additions [4]	Disposals	Closing Balance	Opening Balance	Additions	Disposals	Closing Balance	
12	1611	Computer Software (Formally known as Account 1925)	$ 155,375	$ 40,000		$ 195,375	-$ 61,043	-$ 17,285		-$ 78,328	$ 117,047
CEC	1612	Land Rights (Formally known as Account 1906)	$ 5,512	$ -		$ 5,512	-$ 5,512			-$ 5,512	$ -
N/A	1805	Land	$ 121,775	$ -		$ 121,775	$ -			$ -	$ 121,775
47	1808	Buildings	$ -	$ -		$ -	$ -			$ -	$ -
13	1810	Leasehold Improvements	$ -	$ -		$ -	$ -			$ -	$ -
47	1815	Transformer Station Equipment >50 kV	$ -	$ -		$ -	$ -			$ -	$ -
47	1820	Distribution Station Equipment <50 kV	$ 3,380,805	$ -		$ 3,380,805	-$ 1,195,031	-$ 78,140		-$ 1,273,171	$ 2,107,634
47	1825	Storage Battery Equipment	$ -	$ -		$ -	$ -			$ -	$ -
47	1830	Poles, Towers & Fixtures	$ 4,286,736	$ 525,000	-$ 44,683	$ 4,767,054	-$ 2,330,041	-$ 65,567	$ 42,898	-$ 2,352,710	$ 2,414,344
47	1835	Overhead Conductors & Devices	$ 4,116,953	$ 265,000	-$ 35,464	$ 4,346,489	-$ 2,465,737	-$ 55,636	$ 35,329	-$ 2,486,044	$ 1,860,445
47	1840	Underground Conduit	$ 341,941	$ -		$ 341,941	-$ 60,964	-$ 6,423		-$ 67,387	$ 274,554
47	1845	Underground Conductors & Devices	$ 6,113,516	$ 112,000		$ 6,225,516	-$ 2,880,934	-$ 176,826		-$ 3,057,761	$ 3,167,755
47	1850	Line Transformers	$ 5,087,498	$ 235,000	-$ 24,533	$ 5,297,965	-$ 2,356,942	-$ 88,660	$ 20,751	-$ 2,424,851	$ 2,873,115
47	1855	Services (Overhead & Underground)	$ 4,933,757	$ 273,000		$ 5,206,757	-$ 2,267,440	-$ 111,048		-$ 2,378,487	$ 2,828,270
47	1860	Meters	$ 228,065	$ 5,000		$ 233,065	-$ 74,448	-$ 7,193		-$ 81,641	$ 151,424
47	1860	Meters (Smart Meters)	$ 1,750,978	$ 100,000	-$ 99,127	$ 1,751,851	-$ 659,645	-$ 120,797	$ 52,876	-$ 727,566	$ 1,024,285
N/A	1905	Land	$ 608,998	$ -		$ 608,998	$ -			$ -	$ 608,998
47	1908	Buildings & Fixtures	$ 1,610,650	$ -		$ 1,610,650	-$ 461,885	-$ 30,537		-$ 492,422	$ 1,118,228
13	1910	Leasehold Improvements	$ -	$ -		$ -	$ -			$ -	$ -
8	1915	Office Furniture & Equipment (10 years)	$ -	$ -		$ -	$ -			$ -	$ -
8	1915	Office Furniture & Equipment (5 years)	$ -	$ -		$ -	$ -			$ -	$ -
10	1920	Computer Equipment - Hardware	$ -	$ -		$ -	$ -			$ -	$ -
45	1920	Computer Equip.-Hardware(Post Mar. 22/04)	$ -	$ -		$ -	$ -			$ -	$ -
45.1	1920	Computer Equip.-Hardware(Post Mar. 19/07)	$ -	$ -		$ -	$ -			$ -	$ -
10	1930	Transportation Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1935	Stores Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1940	Tools, Shop & Garage Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1945	Measurement & Testing Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1950	Power Operated Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1955	Communications Equipment	$ -	$ -		$ -	$ -			$ -	$ -
8	1955	Communication Equipment (Smart Meters)	$ -	$ -		$ -	$ -			$ -	$ -
8	1960	Miscellaneous Equipment	$ -	$ -		$ -	$ -			$ -	$ -
47	1970	Load Management Controls Customer Premises	$ -	$ -		$ -	$ -			$ -	$ -
47	1975	Load Management Controls Utility Premises	$ -	$ -		$ -	$ -			$ -	$ -
47	1980	System Supervisor Equipment	$ 47,073	$ -		$ 47,073	-$ 15,096	-$ 4,401		-$ 19,497	$ 27,576
47	1985	Miscellaneous Fixed Assets	$ -	$ -		$ -	$ -			$ -	$ -
47	1990	Other Tangible Property	$ -	$ -		$ -	$ -			$ -	$ -
47	1995	Contributions & Grants	$ -	$ -		$ -	$ -			$ -	$ -
47	2440	Deferred Revenue[5]	-$ 7,375,589	-$ 276,250		-$ 7,651,839	$ 1,632,022	$ 212,212		$ 1,844,234	-$ 5,807,606
	2055	Capital Lease	$ 126,793			$ 126,793	-$ 14,050	-$ 4,014		-$ 18,065	$ 108,729
						$ -				$ -	$ -
		Sub-Total	**$ 25,540,834**	**$ 1,278,750**	**-$ 203,806**	**$ 26,615,778**	**-$ 13,216,745**	**-$ 554,315**	**$ 151,854**	**-$ 13,619,205**	**$ 12,996,573**
		Less Socialized Renewable Energy Generation Investments (input as negative)				$ -				$ -	$ -
		Less Other Non Rate-Regulated Utility Assets (input as negative)				$ -				$ -	$ -
		Total PP&E	**$ 25,540,834**	**$ 1,278,750**	**-$ 203,806**	**$ 26,615,778**	**-$ 13,216,745**	**-$ 554,315**	**$ 151,854**	**-$ 13,619,205**	**$ 12,996,573**
		Depreciation Expense adj. from gain or loss on the retirement of assets (pool of like assets), if applicable[6]									
		Total						**-$ 554,315**			

10		Transportation
8		Stores Equipment

Less: *Fully Allocated Depreciation*	
Transportation	
Stores Equipment	
Net Depreciation	-$ 554,315

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Gross Assets – PP&E and Accumulated Depreciation

Ex.2/Tab 2/Sch.1 - Gross Assets Variance Analysis

WDI chose to break down and categorize WDI asset into four categories; Distribution Plant, General Plant, Contributions and Grants, and WIP. In accordance with the Uniform System of Accounts ("USoA"), WDI has included Gross Assets as follows:

- Distribution Plant Asset Accounts include US0A 1820 to 1860 and USoA 1612 –this account includes assets such as distribution equipment, poles, wires, transformers and meters.
- General Plant Asset Accounts include USoA 1915 to 1980 and USoA 1805, 1611 – this account includes assets such as buildings, computer software and hardware.
- Contributions and Grants include USoA accounts 1995 and 2440 this account includes all contributions in aid of capital that WDI has received or forecasted to be received as per the Distribution System Code ("DSC") and,
- WIP – this account includes all costs related to assets that are not considered in-service as of December 31st of the applicable fiscal year. Costs are transferred out of WIP and into the appropriate category above once designated in-service.

Table 2.9 categorizes WDI's assets into the four categories according to USoA. Gross Assets under MIFRS are reported in accordance with Article 315 of the Accounting Procedures Handbook.

Table 2.9 – Gross Asset Breakdowns by Function

Description	2012 Board Approved	2012	2013	2014	2014	2015 Bridge Year	2016 Test Year
Reporting Basis	**CGAAP**	**CGAAP**	**CGAAP**	**CGAAP**	**MIFRS**	**MIFRS**	**MIFRS**
Distribution Plant	27,039,842	26,019,869	27,468,241	29,196,380	29,196,380	30,367,041	31,678,235
General Plant	2,116,699	1,818,713	2,318,018	2,414,382	2,414,382	2,549,382	2,589,382
Contribution and Grants	- 6,399,196	- 5,629,198	- 6,352,713	- 7,030,589	- 7,030,589	-7,375,589	-7,651,839
Total Excluding WIP	22,757,345	22,209,384	23,433,546	24,580,173	24,580,173	25,540,834	26,615,778
WIP	-	376,814	-	31,271	31,271	-	-
Total Including WIP	22,757,345	22,586,198	23,433,546	24,611,444	24,611,444	25,540,834	26,615,778

Detailed Breakdown by Major Plant Account

Table 2.10 illustrates 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 2016 Test Year. WDI has also included a breakdown of Accumulated Amortization in the same format in Table 2.11.

Table 2.10 – Gross Asset Breakdowns by Major Plant

Account Descriptions		2012 Board Approved CGAAP	2012 Actual CGAAP	Variance from 2012 Board Approved	2013 Actual CGAAP	Variance from 2012 Actual	2014 Actual CGAAP	Variance from 2013 Actual	2014 Actual MIFRS	Variance from 2014 Actual CGAAP	2015 Bridge MIFRS	Variance from 2014 Actual MIFRS	2016 Test MIFRS	Variance from 2015 Actual MIFRS
Building and Land														
1612	Land Rights (Formally known as Account 1906)	5,512	5,512	0	5,512	0	5,512	0	5,512	0	5,512	0	5,512	0
1805	Land	121,775	121,775	0	121,775	0	121,775	0	121,775	0	121,775	0	121,775	0
1905	Land	502,467	489,333	-13,134	517,754	28,421	608,998	91,245	608,998	0	608,998	0	608,998	0
1908	Buildings & Fixtures	1,464,857	1,021,270	-443,587	1,486,024	464,754	1,490,650	4,626	1,490,650	0	1,610,650	120,000	1,610,650	0
Distribution Station Equipment														
1820	Distribution Station Equipment <50 kV	3,503,633	3,244,414	-259,220	3,329,020	84,606	3,380,805	51,785	3,380,805	0	3,380,805	0	3,380,805	0
Overhead Plant														
1830	Poles, Towers & Fixtures	3,454,317	3,477,071	22,754	3,579,521	102,449	4,027,184	447,663	4,027,184	0	4,286,736	259,552	4,767,054	480,318
1835	Overhead Conductors & Devices	3,885,301	3,835,061	-50,239	3,955,463	120,402	4,009,357	53,894	4,009,357	0	4,116,953	107,596	4,346,489	229,536
Underground Plant														
1840	Underground Conduit	459,101	270,398	-188,703	310,761	40,363	341,941	31,180	341,941	0	341,941	0	341,941	0
1845	Underground Conductors & Devices	5,461,292	5,127,919	-333,373	5,448,134	320,215	5,923,516	475,382	5,923,516	0	6,113,516	190,000	6,225,516	112,000
Transformers														
1850	Line Transformers	4,484,508	4,261,286	-223,223	4,536,609	275,323	4,857,030	320,421	4,857,030	0	5,087,498	230,468	5,297,965	210,467
Services and Meters														
1855	Services (Overhead & Underground)	3,860,806	3,890,979	30,173	4,235,704	344,725	4,578,757	343,053	4,578,757	0	4,933,757	355,000	5,206,757	273,000
1860	Meters	37,336	118,555	81,219	217,810	99,255	223,065	5,254	223,065	0	228,065	5,000	233,065	5,000
1860	Meters (Smart Meters)	1,766,261	1,666,899	-99,362	1,727,932	61,033	1,727,932	0	1,727,932	0	1,750,978	23,046	1,751,851	873
IT Assets and Other Equipment														
1611	Computer Software (Formally known as Account 1925)	138,875	140,375	1,500	140,375	0	140,375	0	140,375	0	155,375	15,000	195,375	40,000
1920	Computer Equipment - Hardware	10,500	0	-10,500	0	0	0	0	0	0	0	0	0	0
1980	System Supervisor Equipment	0	40,942	40,942	47,073	6,130	47,073	0	47,073	0	47,073	0	47,073	0
1995	Contributions & Grants	-6,399,196	-5,629,198	769,998	-6,352,713	-723,515	-7,030,589	-677,876	0	7,030,589		0	0	0
2440	Deferred Revenue[5]	0	0	0	0	0	0	0	-7,030,589	-7,030,589	-7,375,589	-345,000	-7,651,839	-276,250
2055	Capital Lease	126,794	126,793	-1	126,793	0	126,793	0	126,793	0	126,793	0	126,793	0
Gross Assets for Rate Base		22,884,139	22,209,384	-674,755	23,433,546	1,224,161	24,580,173	1,146,627	24,580,173	0	25,540,834	960,662	26,615,778	1,074,944
2055	Construction Work in Progress - Electric	0	376,814	376,814	0	-376,814	31,271	31,271	31,271	0	0	-31,271	0	0
Total Assets Including WIP		22,884,139	22,586,198	-297,941	23,433,546	847,347	24,611,444	1,177,898	24,611,444	0	25,540,834	929,391	26,615,778	1,074,944

Table 2.11 – Accumulated Amortization Breakdowns by Major Plant

	Account Descriptions	2012 Board Approved CGAAP	2012 Actual CGAAP	Variance from 2012 Board Approved	2013 Actual CGAAP	Variance from 2012 Actual	2014 Actual CGAAP	Variance from 2013 Actual	2014 Actual MIFRS	Variance from 2014 Actual CGAAP	2015 Bridge MIFRS	Variance from 2014 Actual MIFRS	2016 Test MIFRS	Variance from 2015 Actual MIFRS
Building and Land														
1612	Land Rights (Formally known as Account 1906)	-5,512	-5,512	0	-5,512	0	-5,512	0	-5,512	0	-5,512	0	-5,512	0
1908	Buildings & Fixtures	-385,465	-381,121	4,344	-404,487	-23,367	-432,547	-28,060	-432,547	0	-461,885	-29,338	-492,422	-30,537
Distribution Station Equipment														
1820	Distribution Station Equipment <50 kV	-1,000,973	-943,173	57,800	-1,024,562	-81,389	-1,109,023	-84,461	-1,109,023	0	-1,195,031	-86,008	-1,273,171	-78,140
Overhead Plant														
1830	Poles, Towers & Fixtures	-2,082,273	-2,076,758	5,514	-2,164,012	-87,253	-2,237,320	-73,308	-2,237,320	0	-2,330,041	-92,721	-2,352,710	-22,669
1835	Overhead Conductors & Devices	-2,232,180	-2,211,451	20,729	-2,297,338	-85,887	-2,378,299	-80,961	-2,378,299	0	-2,465,737	-87,438	-2,486,044	-20,307
Underground Plant														
1840	Underground Conduit	-42,835	-43,097	-262	-48,461	-5,364	-54,541	-6,080	-54,541	0	-60,964	-6,423	-67,387	-6,423
1845	Underground Conductors & Devices	-2,376,243	-2,379,522	-3,279	-2,534,013	-154,491	-2,701,765	-167,751	-2,701,765	0	-2,880,934	-179,169	-3,057,761	-176,827
Transformers														
1850	Line Transformers	-2,162,061	-2,154,521	7,540	-2,214,514	-59,993	-2,280,000	-65,486	-2,280,000	0	-2,356,942	-76,942	-2,424,851	-67,909
Services and Meters														
1855	Services (Overhead & Underground)	-2,012,527	-1,991,388	21,139	-2,073,469	-82,081	-2,165,363	-91,894	-2,165,363	0	-2,267,440	-102,077	-2,378,487	-111,047
1860	Meters	-920	-55,656	-54,737	-60,563	-4,907	-67,455	-6,892	-67,455	0	-74,448	-6,993	-81,641	-7,193
1860	Meters (Smart Meters)	-355,846	-341,383	14,463	-454,489	-113,106	-569,805	-115,316	-569,805	0	-659,645	-89,840	-727,566	-67,921
IT Assets and Other Equipment														
1611	Computer Software (Formally known as Account 1925)	-18,863	-18,949	-86	-32,728	-13,779	-46,508	-13,779	-46,508	0	-61,042	-14,534	-78,328	-17,286
1920	Computer Hardware	-1,050	0	1,050	0	0	0	0	0	0	0	0	0	0
1980	System Supervisor Equipment	0	-2,047	-2,047	-6,295	-4,247	-10,695	-4,401	-10,695	0	-15,096	-4,401	-19,497	-4,401
1995	Contributions & Grants	1,120,891	1,079,316	-41,575	1,246,776	167,460	1,428,892	182,116	0	-1,428,892	0	0	0	0
2440	Deferred Revenue[5]		0	0	0	0	0	0	1,428,892	1,428,892	1,632,022	203,130	1,844,234	212,212
2055	Capital Lease	-6,340	-2,007	4,333	-6,022	-4,014	-10,036	-4,014	-10,036	0	-14,050	-4,014	-18,065	-4,015
	Total	-11,562,195	-11,527,269	34,926	-12,079,688	-552,419	-12,639,975	-560,287	-12,639,975	0	-13,216,745	-576,770	-13,619,205	-402,460
	Net Book Value	11,321,943	10,682,115	-639,828	11,353,857	671,742	11,940,197	586,340	11,940,198	0	12,324,089	383,892	12,996,573	672,484

Variance Analysis on Gross Assets

Table 2.12 below provides the same level of detail as Table 2.10, however, for the purposes of the Variance Analysis, asses are categorized as Distribution Assets and General Plant and explanations on variances are explained following the table.

Table 2.12 – Variance Analysis of Gross Asset Breakdowns by Major Plant and Function

Account Descriptions		2012 Board Approved CGAAP	2012 Actual CGAAP	Variance from 2012 Board Approved	2013 Actual CGAAP	Variance from 2012 Actual	2014 Actual CGAAP	Variance from 2013 Actual	2014 Actual MIFRS	Variance from 2014 Actual CGAAP	2015 Bridge MIFRS	Variance from 2014 Actual MIFRS	2016 Test MIFRS	Variance from 2015 Actual MIFRS
Distribution Assets														
1820	Distribution Station Equipment <50 kV	3,503,633	3,244,414	-259,220	3,329,020	84,606	3,380,805	51,785	3,380,805	0	3,380,805	0	3,380,805	0
1830	Poles, Towers & Fixtures	3,454,317	3,477,071	22,754	3,579,521	102,449	4,027,184	447,663	4,027,184	0	4,286,736	259,552	4,767,054	480,318
1835	Overhead Conductors & Devices	3,885,301	3,835,061	-50,239	3,955,463	120,402	4,009,357	53,894	4,009,357	0	4,116,953	107,596	4,346,489	229,536
1840	Underground Conduit	459,101	270,398	-188,703	310,761	40,363	341,941	31,180	341,941	0	341,941	0	341,941	0
1845	Underground Conductors & Devices	5,461,292	5,127,919	-333,373	5,448,134	320,215	5,923,516	475,382	5,923,516	0	6,113,516	190,000	6,225,516	112,000
1850	Line Transformers	4,484,508	4,261,286	-223,223	4,536,609	275,323	4,857,030	320,421	4,857,030	0	5,087,498	230,468	5,297,965	210,467
1855	Services (Overhead & Underground)	3,860,806	3,890,979	30,173	4,235,704	344,725	4,578,757	343,053	4,578,757	0	4,933,757	355,000	5,206,757	273,000
1860	Meters	37,336	118,555	81,219	217,810	99,255	223,065	5,254	223,065	0	228,065	5,000	233,065	5,000
1860	Meters (Smart Meters)	1,766,261	1,666,899	-99,362	1,727,932	61,033	1,727,932	0	1,727,932	0	1,750,978	23,046	1,751,851	873
1995	Contributions & Grants	-6,399,196	-5,629,198	769,998	-6,352,713	-723,515	-7,030,589	-677,876	0	7,030,589	0	0	0	0
2440	Deferred Revenue[5]	0	0	0	0	0	0	0	-7,030,589	-7,030,589	-7,375,589	-345,000	-7,651,839	-276,250
Subtotal Distribution Assets		20,513,359	20,263,384	-249,974	20,988,241	724,856	22,038,997	1,050,756	22,038,997	0	22,864,659	825,662	23,899,603	1,034,944
General Plant														
1612	Land Rights (Formally known as Account 1906)	5,512	5,512	0	5,512	0	5,512	0	5,512	0	5,512	0	5,512	0
1805	Land	121,775	121,775	0	121,775	0	121,775	0	121,775	0	121,775	0	121,775	0
1905	Land	502,467	489,333	-13,134	517,754	28,421	608,998	91,245	608,998	0	608,998	0	608,998	0
1908	Buildings & Fixtures	1,464,857	1,021,270	-443,587	1,486,024	464,754	1,490,650	4,626	1,490,650	0	1,610,650	120,000	1,610,650	0
1611	Computer Software (Formally known as Account 1925)	138,875	140,375	1,500	140,375	0	140,375	0	140,375	0	155,375	15,000	195,375	40,000
1920	Computer Equipment - Hardware	10,500	0	-10,500	0	0	0	0	0	0	0	0	0	0
1980	System Supervisor Equipment	0	40,942	40,942	47,073	6,130	47,073	0	47,073	0	47,073	0	47,073	0
2055	Capital Lease	126,794	126,793	-1	126,793	0	126,793	0	126,793	0	126,793	0	126,793	0
Subtotal General Plant		2,370,780	1,946,000	-424,780	2,445,305	499,305	2,541,176	95,871	2,541,176	0	2,676,175	135,000	2,716,176	40,000
Gross Asset Total		22,884,139	22,209,384	-674,755	23,433,546	1,224,161	24,580,173	1,146,627	24,580,173	0	25,540,834	960,662	26,615,778	1,074,944
WIP														
2055	Construction Work in Progress - Electric	0	376,814	376,814	0	-376,814	31,271	31,271	31,271	0	0	-31,271	0	0
Subtotal WIP		0	376,814	376,814	0	-376,814	31,271	31,271	31,271	0	0	-31,271	0	0
Gross Asset Including WIP Total		22,884,139	22,586,198	-297,941	23,433,546	847,347	24,611,444	1,177,898	24,611,444	0	25,540,834	929,391	26,615,778	1,074,944

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

Distribution Assets Variance: -$249,974

2012 Actual Distribution Assets were lower than the 2012 Board Approved amounts by $249,974. The items primarily related to this variance include:

- $100,000 - WDI had budgeted for new primary metering unit along Highway 26 south. There ended up being delays on the delivery of the unit. Additionally, WDI's in-service date was dependent on HONI installation. This project was completed in 2013.
- $125,000 – WDI had budgeted for new development projects of $165,272 (net of capital contributions). These projects are driven by the developers. Total actual cost of development for WDI in 2012 was $41,039 (net of capital contributions). WDI budgeted developments, approved in WDI's 2012 Board Approved included Stonebridge Phase 4A, Wasaga Country Meadows – Phase 3A, Wasaga Country Life Phase 4C, Founders Village Phase 1B (Park Place), Trillium North Phase 1A, and New England Village Phase 1. WDI's actual spend included Wasaga Country Meadows – Phase 3A and Wasaga Country Life Phase 4C. Stonebridge Phase 4A, New England Village Phase 1 and Founders Village Phase 1B were completed in 2013. Followed by Trillium North Phase 1A in 2014.
- In conjunction with WDI's fixed asset studies in anticipation of MIFRS conversion. WDI completed a capital contribution analysis – completed in 2013. WDI re-evaluated capital contributions received to date (starting in the year 2000) and made adjustments to assets as identified in the analysis. The adjustments resulted in reclassification of variances which had no impact on WDI's Rate Base.

General Assets Variance: -$424,780

2012 Actual General Assets were lower than the 2012 Board Approved amount by $424,780. This item is primarily related to the Service Centre renovation with the completion delayed until the 1st quarter of 2013.

Work in Progress Variance: $376,814

2012 Actual Work in Progress was higher than the 2012 Board Approved amount by $376,814. This item is primarily related to the Service Centre renovation with the completion being delayed until the 1st quarter of 2013.

2013 Actual (CGAAP) compared to 2012 Actual (CGAAP):

Distribution Assets Variance: $724,856

2013 Actual Distribution Assets were higher than the 2012 Actual amounts by $724,856. The items primarily related to this variance include:

- The completion of the PME on Highway 26, Highway 92 pole line expansion, and continued investment in residential and commercial developments.
- Contributed Capital offset Distribution Assets by approximately $700,000

General Assets Variance: $499,305

2013 Actual General Assets were higher than the 2012 Actual amount by $499,305. This item is primarily related to the Service Centre renovation completion extending into the 1st quarter of 2013.

Work in Progress Variance: -$376,814

2013 Actual Work in Progress was lower than the 2012 Actual amount by $376,814. This item is primarily related to the Service Centre renovation which was completed and moved to Distribution Assets during the 1st quarter of 2013.

2014 Actual (CGAAP) compared to 2013 Actual (CGAAP):

Distribution Assets Variance: $1,050,756

2014 Actual Distribution Assets were higher than the 2013 Actual amounts by $1,050,756. The items primarily related to this variance include:

- WDI's continued investment in residential and commercial developments. Major projects included the Village of Upper Wasaga Express and Trillium North.
- A major municipal roadway relocation which cost upwards of $450,000
- Contributed Capital offset Distribution Assets by approximately $700,000 - reduced by $274,000 of which was a result of repurchasing a portion a Distribution Station that was partially contributed from a large commercial development.

General Assets Variance: $95,871

2014 Actual General Assets were higher than the 2013 Actual amount by $95,871. This was for getting a parcel of land purchased in 2012 ready for WDI to use as storage.

Work in Progress Variance: $31,271

2014 Actual Work in Progress was higher than the 2013 Actual amount by $31,271. This was for uncompleted work on municipally driven roadway relocation.

2014 Actual (MIFRS) compared to 2014 Actual (CGAAP):

The only variance is a result of the Contributed Capital being general ledger account 1995 reclassified to Deferred Revenue general account 2240.

2015 Bridge (MIFRS) compared to 2014 Actual (MIFRS):

Distribution Assets Variance: $825,662

2015 Bridge Year Distribution Assets under MIFRS were higher than the 2014 Actual Assets under MIFRS by $825,662. The items primarily related to this variance include:

- WDI's continued investment in residential and commercial developments major projects which included the Village of Upper Wasaga, Trillium North, and New England Village Phase 2.
- A major Pole line expansion is scheduled to be constructed to feed a large residential development in the Sunnidale Trails neighborhood.
- WDI has projected an increase in system renewal projects for the replacement of aged poles and transformers.
- Contributed Capital offset Distribution Assets by approximately $345,000

General Assets Variance: $135,000

2015 Bridge Year General Assets under MIFRS were higher than the 2014 Actual General Assets under MIFRS by $135,000. Projects include a new roof for the Service Centre, HVAC upgrades and a new sign for WDI's Administration building.

Work in Progress Variance: -$31,271

2015 Bridge Year Work in Progress under MIFRS is projected to be lower than the 2014 Actual under MIFRS amount by $31,271. This was for uncompleted work on municipally driven roadway relocation being placed in-service for the 2015 Bridge Year. WDI does not expect a balance of Work in Progress as of December 31, 2015.

2016 Test (MIFRS) compared to 2015 Bridge (MIFRS):

Distribution Assets Variance: $1,034,944

- WDI's continued investment in residential and commercial developments major projects.
- A major Pole line expansion is scheduled to continue (2nd Phase) and be constructed to feed a large residential development in the Sunnidale Trails neighborhood.
- WDI has projected an increase in system renewal projects for the replacement of aged poles and transformers.
- Contributed Capital offset Distribution Assets by approximately $276,250.

General Assets Variance: $40,000

2016 Test Year General Assets under MIFRS are projected to $40,000 higher than 2015 Bridge Year under MIFRS. This item is primarily related to a GIS upgrade and a Website redesign.

A listing of WDI's material projects can be found in Ex. 2/Tab 5/Sch. 3.

Ex.2/Tab 2/Sch.2 - Accumulated Depreciation

WDI has adopted depreciation useful lives based on the information provided in the Kinectrics Asset Depreciation Study for the OEB published July 8th, 2010. The useful lives used are presented below.

WDI's Accumulated Depreciation by Asset Account is presented in Ex. 2/Tab 2/Sch. 1, Table 2.11.

WDI's depreciation expense policy and methodology are provided at Ex. 2/Tab 5/Sch. 3.The depreciation expenses continuity schedules are presented at Ex. 4/Tab 4/Sch. 1.

Table 2.13 below provides WDI's depreciable lives by asset class (Adopted in 2012, EB-2011-0103).

Table 2.13: Comparison of Depreciation Rates

USoA Account Number	Description	Current	Proposed
		(EB-2011-0103)	Years
1611	Computer Software	10	10
1820	Distribution Station Equipment - Transformer	45	45
1820	Distribution Station Equipment - Equipment	40	40
1820	Distribution Station Equipment – Reclosures and Breakers	20	20
1820	Distribution Station Equipment - Structure/Civil	50	50
1830	Poles, Towers and Fixtures - All	45	45
1835	Underground Conductors and Devices- All	45	45
1840	Conduit	50	50
1845	Underground Conductor - Direct Buried	30	30
1850	Line Transformers – All	40	40
1855	Secondary Services	35	35
1860	Primary Metering Equipment	25	25
1860	GS>50 Meters	25	25
1860	Smart Meters	15	15
1908	Building and Fixtures	50	50
1980	System Supervisor Equipment	20	20
2055	Capital Leases – Communication Equipment	20	20
2055	Capital Leases – Towers	50	50

Allowance for Working Capital

Ex.2/Tab 3/Sch.1 - Derivation of Working Capital

The Filing Requirements permit applicants to take one of two approaches for calculation of the Allowance for Working Capital; the 7.5% Allowance Approach or the filing of a lead/lag study. WDI has currently used the 7.5% default allowance rate for the purpose of calculating its Allowance for Working Capital. This was done in accordance with the letter issued by the Board on June 3, 2015 a rate of 7.5% of the sum of Cost of Power and controllable expenses (i.e., Operations, Maintenance, Billing and Collecting, Community Relations, Administration and General).

WDI is looking into completing a Lead-Lag study to determine if the 7.5% default value is appropriate. WDI will submit preliminary results if available.

Table 2.14 presented below show WDI's calculations in determining its Allowance for Working Capital.

Table 2.14: Allowance for Working Capital

	CGAAP	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS
Expenses for Working Capital	**Last Board Approved**	**2012**	**2013**	**2014**	**2015**	**2016**
Eligible Distribution Expenses:						
3500-Distribution Expenses - Operation	49,002	74,969	68,206	56,210	72,958	77,011
3550-Distribution Expenses - Maintenance	638,821	730,688	708,240	720,468	755,540	795,181
3650-Billing and Collecting	881,150	1,005,998	861,285	941,897	993,050	1,027,236
3700-Community Relations	9,800	11,652	4,804	7,473	10,803	17,803
3800-Administrative and General Expenses	965,963	966,301	1,053,974	1,087,760	1,113,967	1,152,583
6105-Taxes other than Income Taxes	25,000	24,670	26,361	27,199	27,500	28,000
6205-Sub-account LEAP Funding	4,500	4,460	4,762	4,762	4,762	4,968
Total Eligible Distribution Expenses	2,574,236	2,818,738	2,727,632	2,845,769	2,978,580	3,102,782
3350-Power Supply Expenses	13,087,961	11,234,636	12,958,277	14,388,222	16,071,287	16,123,534
Total Expenses for Working Capital	15,662,197	14,053,374	15,685,909	17,233,991	19,049,867	19,226,316
Working Capital factor	14%	14%	14%	14%	14%	7.5%
Total Working Capital	**2,192,708**	**1,967,472**	**2,196,027**	**2,412,759**	**2,666,981**	**1,441,974**

Cost of Power Calculations

WDI attests that the Cost of Power ("COP") is determined by a split between the Regulated Price Plan ("RPP") and non-RPP customers based on actual data, use of most current RPP price, and use current Uniform Transmission Rates ("UTR"). WDI has calculated the COP for the 2016 Test Year based upon the 2016 Load Forecast adjusted for the impact of Conservation and Demand Management ("CDM") Activities and in accordance with the Board's Filing Requirements. A summary of the Total COP expenses in provided in Table 2-15

Table 2-15 – Summary of total Cost of Power Expenses

	2012 Board Approved	2012	2013	2014	2015 Bridge Year	2016 Test Year
Power Purchased	10,900,443	9,257,170	10,756,687	12,078,842	13,594,255	13,534,587
Wholesale Market Services/Rural Rate assistance	855,650	664,414	696,612	760,327	781,411	777,728
Network Charges	702,328	704,730	819,463	867,554	776,007	954,651
Connection Charges	408,403	426,634	460,502	454,556	569,690	500,973
Low Voltale Charges	221,137	181,688	225,012	226,944	226,286	230,183
Smart Metering Entrity Charge	-	-	81,942	118,447	123,638	125,411
Total Cost of Power Expenses	13,087,961	11,234,636	13,040,218	14,506,669	16,071,287	16,123,534

Commodity Prices

In accordance with the Filing Requirements, the commodity price estimate used to calculate COP was determined in a way that bases the split between RPP and Non-RPP customers on 2014 actual data and uses the most current RPP price.

The RPP and Non-RPP price was obtained from the RPP Report for the period of May 1, 2015 through April 30, 2016 published by the Board April 20, 2015. For the purposes of calculating the 2016 Test Year, WDI has used an estimate of $0.10210 per kWh for RPP customers. For Non-RPP customers, WDI has used $0.010186 as per the kWh for Non-RPP customers. WDI understands that the commodity charge will be updated to reflect any changes to commodity prices that may become available prior to the approval of its Application.

Wholesale Market Service

The Wholesale Market Service ("WMS") Charges for the 2016 Test Year were calculated based on the OEB Decision and Tate Order issued on December 19, 2014 (EB-2014-0347), which sets the Rural Rate Protection Charge to $0.0013 per kWh effective January 1, 2015 and does not amend the WMS Rate currently at $0.0044 per kWh. The Wholesale Market Service Costs

have been very stable for a number of years so it was determined that no change is required for 2016. These rates were applied to the forecasted power purchases for the 2016 Test Year.

Network and Connection Charges

WDI pays Network and Connection charges from Hydro One. WDI is fully embedded to Hydro One.

WDI determined the kW billed by Hydro One for 2014 actual Network and Connection Charges. The 2014 kW was then utilized to estimate the monthly Network and Connection costs for the 2016 Test Year by applying the forecasted kW by the January 1, 2015 Uniform Transmission Rates (UTR) as approved by the Board (EB-2014-0357).

WDI understands that the transmission costs will be updated to reflect any new rates that may become available prior to the approval of its application.

Low Voltage Charges

WDI incurs low voltage charges from Hydro One. WDI is embedded to Hydro One, thus, incurs charges. In Exhibit 8 WDI proposes Low Voltage Service Rates, detailed calculations are provided in this Exhibit. WDI applied the 2014 kW charged by Hydro One and allocated the charge base on Transmission-Connection revenue by rate class. WDI has estimated the Low Voltage charge to be the same as 2014 Actual amount of $226,944.

Smart Meter Entity Charges

The Smart Meter Entity costs are calculated based on the rate of $0.79 per month for each Residential and General Service < 50 kW customers. This rate was approved by the Board as at March 28, 2014. The forecasted 2016 average customer was used to calculate the 2016 Test Year.

Table 2-16 provides a summary of the COP calculation for the 2016 Test Year.

Table 2-16 – 2016 Cost of Power Calculation

Determination of Commodity

Customer Class Name		Last Actual kWh's	non-RPP	RPP
Residential		87,611,190	3,027,200	84,583,989
General Service < 50 kW		16,552,639	2,108,189	14,444,450
General Service > 50 to 4999 kW		17,311,423.28	16,395,763	915,660
Street Lighting		1,834,663	1,834,663	0
Unmetered Scattered Load		247,974		247,974
other		-	-	0
other		-	-	0
other		-	-	0
other		-	-	0
TOTAL		**123,557,890**	**23,365,816**	**100,192,074**
%		*100.00%*	*18.91%*	*81.09%*

Wholesale Market Participants - kWh's				
2012	2013	2014	2015	2016
3,761,856	3,594,884	3,453,199	3,592,944	3,538,626

Loss Factor	
Old	Proposed
1.0810	1.0802

Forecast Price

HOEP ($/MWh)				$21.68		Note: Table ES-1 from current RPP report - Load Weighted price for RPP Consumers
Global Adjustment ($/MWh)				$81.94		Note: Table ES-1 from current RPP report - Impact of Global Adjustment
Adjustments				($1.52)		
TOTAL ($/MWh)				**$102.10**	**$101.86**	Note: Table ES-1 from current RPP report - Impact of Global Adjustment
$/kWh				***$0.10210***	***$0.10186***	
%				81.09%	18.91%	
WEIGHTED AVERAGE PRICE		**$0.1021**		**$0.0828**	**$0.0193**	

Electricity Projections

(volumes for the bridge and test year are automatically loss adjusted)

				2015			2016		
Customer		**Revenue**	**Expense**						
Class Name		USA #	USA #	Volume	rate ($/kWh):	Amount	Volume	rate ($/kWh):	Amount
Residential	kWh	4006	4705	94,759,260	$0.10205	$9,670,620	94,561,074	$0.10205	$9,650,394
General Service < 50 kW	kWh	4010	4705	18,149,484	$0.10205	$1,852,239	18,404,164	$0.10205	$1,878,230
General Service > 50 to 4999 kW	kWh	4035	4705	18,724,404	$0.10205	$1,910,912	18,756,727	$0.10205	$1,914,211
Street Lighting	kWh	4010	4705	1,321,304	$0.10205	$134,845	660,310	$0.10205	$67,388
Unmetered Scattered Load	kWh	4025	4705	251,236	$0.10205	$25,640	238,748	$0.10205	$24,365
TOTAL				**133,205,689**		**$13,594,255**	**132,621,024**		**$13,534,587**

Transmission - Network

(volumes for the bridge and test year are automatically loss adjusted)

				2015			2016		
Customer		**Revenue**	**Expense**						
Class Name		USA #	USA #	Volume	Rate	Amount	Volume	Rate	Amount
Residential	kWh	4066	4714	94,759,260	0.0059	$559,080	94,561,074	0.0073	$690,296
General Service < 50 kW	kWh	4066	4714	18,149,484	0.0053	$96,192	18,404,164	0.0065	$119,627
General Service > 50 to 4999 kW	kW	4066	4714	51,929	2.185	$113,464	51,946	2.6860	$139,526
Street Lighting	kW	4066	4714	3,604	1.648	$5,939	1,802	2.0255	$3,651
Unmetered Scattered Load	kWh	4066	4714	251,236	0.0053	$1,332	238,748	0.0065	$1,552
TOTAL				**113,215,513**		**$776,007**	**113,257,734**		**$954,651**

Transmission - Connection

(volumes for the bridge and test year are automatically loss adjusted)

				2015			2016		
Customer		**Revenue**	**Expense**						
Class Name		USA #	USA #	Volume	Rate	Amount	Volume	Rate	Amount
Residential	kWh	4068	4716	94,759,260	0.0044	$416,941	94,561,074	0.0039	$368,788
General Service < 50 kW	kWh	4068	4716	18,149,484	0.0038	$68,968	18,404,164	0.0033	$60,734
General Service > 50 to 4999 kW	kW	4068	4716	51,929	1.5069	$78,251	51,946	1.3248	$68,818
Street Lighting	kW	4068	4716	3,604	1.1649	$4,198	1,802	1.0241	$1,846
Unmetered Scattered Load	kWh	4068	4716	251,236	0.0053	$1,332	238,748	0.0033	$788
TOTAL				**113,215,513**		**$569,690**	**113,257,734**		**$500,973**

Wholesale Market Service
(volumes for the bridge and test year are automatically loss adjusted)

				2015			2016		
Customer		**Revenue**	**Expense**		**rate ($/kWh):**	**0.0052**		**rate ($/kWh):**	**0.0052**
Class Name		USA #	USA #	Volume		Amount	Volume		Amount
Residential	kWh	4062	4708	94,759,260	0.00440	$416,941	94,561,074	0.00440	$416,069
General Service < 50 kW	kWh	4062	4708	18,149,484	0.00440	$79,858	18,404,164	0.00440	$80,978
General Service > 50 to 4999 kW	kWh	4062	4708	22,608,377	0.00440	$99,477	22,579,151	0.00440	$99,348
Street Lighting	kWh	4062	4708	1,321,304	0.00440	$5,814	660,310	0.00440	$2,905
Unmetered Scattered Load	kWh	4062	4708	251,236	0.00440	$1,105	238,748	0.00440	$1,050
TOTAL				**137,089,662**		**$603,195**	**136,443,448**		**$600,351**

Rural Rate Protection
(volumes for the bridge and test year are automatically loss adjusted)

				2015			2016		
Customer		**Revenue**	**Expense**		**rate ($/kWh):**			**rate ($/kWh):**	
Class Name		USA #	USA #	Volume		Amount	Volume		Amount
Residential	kWh	4062	4730	94,759,260	0.00130	$123,187	94,561,074	0.00130	$122,929
General Service < 50 kW	kWh	4062	4730	18,149,484	0.00130	$23,594	18,404,164	0.00130	$23,925
General Service > 50 to 4999 kW	kWh	4062	4730	22,608,377	0.00130	$29,391	22,579,151	0.00130	$29,353
Street Lighting	kWh	4062	4730	1,321,304	0.00130	$1,718	660,310	0.00130	$858
Unmetered Scattered Load	kWh	4062	4730	251,236	0.00130	$327	238,748	0.00130	$310
TOTAL				**137,089,662**		**$178,217**	**136,443,448**		**$177,376**

Smart Meter Entity Charge
(per customer)

				2015			2016		
Customer		**Revenue**	**Expense**		**Per bill**			**Per bill**	
Class Name		USA #	USA #	Volume		Amount	Volume		Amount
Residential	kWh			12,256	0.79000	$116,187	12,440	0.79000	$117,931
General Service < 50 kW	kWh			786	0.79000	$7,451	789	0.79000	$7,480
General Service > 50 to 4999 kW	kW			38	0.00000	$0	38	0.00000	$0
TOTAL				**13,080**		**$123,638**	**13,267**		**$125,411**

Low Voltage Charges to be added to power supply expense for bridge and test year.
(volumes are not loss adjusted)

Customer		**Revenue**	**Expense**	**2015**			**2016**		
Class Name		USA #	USA #	Volume	Rate	Amount	Volume	Rate	Amount
Residential	kWh	4075	4750	87,658,890	$0.0019	$166,552	94,561,074	$0.0018	$170,210
General Service < 50 kW	kWh	4075	4750	16,789,532	$0.0016	$26,863	18,404,164	$0.0015	$27,606
General Service > 50 to 4999 kW	kW	4075	4750	51,929	$0.5944	$30,866	51,946	$0.6001	$31,173
Street Lighting	kW	4075	4750	3,604	$0.4595	$1,656	1,802	$0.4639	$836
Unmetered Scattered Load	kWh	4075	4750	232,411	$0.0015	$349	238,748	$0.0015	$358
TOTAL		**0**	**0**	**104,736,370**		**$226,286**	**113,257,738**		**$230,183**

1

Projected Power Supply Expense	**$16,071,287**	**$16,123,534**

Ex.2/Tab 3/Sch.2 - Lead Lag Study

WDI is undertaking a basic analysis of a Lead Lag Study to determine whether the default rate is appropriate for WDI. Due to time constraints, WDI has submitted evidence to support the default rate of 7.5%. However, WDI does feel that since the majority of WDI customers (including all large commercial) have a due date that ranges from 43-52 days (3rd Tuesday of the following month) past the date of actual usage; the subsequent revenue lag might support a higher rate for WDI. However, if the analysis supports a lower rate, WDI will submit that rate.

WDI has not previously been directed by the Board to undertake a lead/lag study.

Smart Meter Deployment and Stranded Meters

Ex.2/Tab 4/Sch.1 - Disposition of Smart Meters and Treatment of Stranded Meters

In WDI's last COS Application completed in 2012 WDI received approval from the Board for the disposition and recovery of costs related to smart meters. No further dispositions or recoveries are requested in this Application.

Capital Expenditures

Ex.2/Tab 5/Sch.1 - Planning

Please note that when the term "Capital Expenditures" is used, WDI has presented all information on the basis of Capital Additions and has not included Work in Process in its numbers, unless otherwise indicated.

In accordance with the Filing Requirements, WDI is filing its consolidated DSP as a stand-alone document which includes all elements of the DSP as Attachment A of this Exhibit. WDI 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.

All categories of system investments, including System Renewal, System Access, System Service, and General Plant have been addressed and consolidated in WDI's capital expenditure plan. WDI has provided historical spending by material capital project in the categories mentioned for 2011 Actual, 2012 Actual, 2013 Actual, 2014 Actual, 2015 Bridge and 2016 Test Year. WDI has assigned all historical and future construction projects to the new categories as required by the Board. WDI has leveled the plan to address pacing and affordability.

Information related to the Regional Planning Process is found in section 2.2 [5.2.2] of the DSP and information related to Capital Planning can be found in section 4.2 [5.4.2].

Based on the evaluation of the distribution system WDI is not proposing any capital investments for capacity upgrades to accommodate applications for the connection of renewable energy generation plant for the 2016 Test Year.

Ex.2/Tab 5/Sch.2 - Required Information (Distribution System Plan)

WDI has provided a copy of the Distribution System Plan (DSP) as Attachment A of this Exhibit.

Ex.2/Tab 5/Sch.3 – Capital Expenditures

Table 2-17 provides a summary of all capital projects for the years 2011 through 2014, the 2015 Bridge Year and the 2016 Test Year. All projects above WDI's threshold of $50,000 have been listed individually within the DSP categories and all individual projects below the threshold have been grouped together as miscellaneous within the applicable category. WDI's DSP, found in Attachment A, provides capital project summaries that provide a full description and justification of all material project listed in the table for the 2016 Test Year. These summaries are found in section 4.5.2 [5.4.5], and section 5.3. Table 2-17 is consistent with the Board's Appendix 2-AA.

WDI's miscellaneous projects did not exceed materiality threshold. Therefore WDI's year over year variances are mostly attributed to specific projects identified. For the year 2011, WDI started working on the River Road East System renewal project which was completed in 2012.

Table 2-17 – Capital Projects Table - 2012 – 2016

Projects	2011	2012	2013	2014	2015 Bridge Year	2016 Test Year
Reporting Basis	**CGAAP**	**CGAAP**	**CGAAP**	**MIFRS**	**MIFRS**	**MIFRS**
System Access						
Residential and Commercial Developments (net of contributions)	$ 33,506	$ 41,039	$ 71,089	$ 64,028	$ 75,000	$ 68,750
New and Upgraded Services (net of contributions)	$111,751	$ 88,353	$ 92,310	$159,930	$ 115,000	$ 115,000
Smart Metering	$ 67,641	$ 90,637	$ 62,293	$ -	$ 90,000	$ 105,000
Highway 26 Pole Line Expansion		$255,707				
Highway 26 Primary Metering Equipment			$ 97,995			
Puccine Drive - O/H Expansion and Development (net of contributions)			$115,599			
Upper Wasaga Express Feed Expansion (net of contributions)				$149,486		
Distribution Station Contribution Repurchase				$274,000		
River Road West - Pole Line Upgrade (50% contributed)				$216,515	$ 50,000	
Sunnidale Road - Pole Line Expansion					$ 260,000	$ 300,000
Miscellaneous (net of contributions)	$ 23,357	$ 23,687	$ -	$ 11,788		
Sub-Total	236,255	499,423	439,286	875,747	590,000	588,750
System Renewal						
River Road East Upgrade		$446,559				
Highway 92 Upgrade			$141,356			
Distribution Station Equipment Replacement			$ 84,606	$ 51,785		
O/H Replacements		$ 23,987				$ 75,000
Pole Replacements	$ 32,813	$ 47,665	$ 34,902	$ 60,656	$ 130,000	$ 375,000
Transformer Replacements	$ 17,911	$ 36,368	$ 39,972	$ 72,999	$ 105,000	$ 130,000
Miscellaneous (net of contributions)	$ 41,701	$ 48,335	$ 4,971	$ 30,395	$ 90,000	$ 70,000
Sub-Total	92,425	602,914	305,807	215,835	325,000	650,000
System Service						
SCADA		$129,942	$ 6,130			
VLAN & Towers - Communication Equipment		$126,793				
Miscellaneous				$ 1,951		$ 10,000
Sub-Total	0	256,735	6,130	1,951	0	10,000
General Plant						
Service Centre Land Addition		$106,886	$ 28,421	$ 91,245		
Service Centre Building Upgrade			$464,754			
Administration Building Upgrades					$ 90,000	
Shop Roof Replacement					$ 30,000	
Miscellaneous	$ 27,718	$ 6,373	$ -	$ 4,626	$ 15,000	$ 30,000
Sub-Total	27,718	113,259	493,175	95,871	135,000	30,000
Miscellaneous						
Total	**356,398**	**1,472,331**	**1,244,398**	**1,189,404**	**1,050,000**	**1,278,750**
Less Renewable Generation Facility Assets and Other Non-Rate-Regulated Utility Assets *(input as negative)*						
Total	**356,398**	**1,472,331**	**1,244,398**	**1,189,404**	**1,050,000**	**1,278,750**

Treatment of Projects

Lifecycle Greater than one Year:

WDI's accounting policy is to include projects in Fixed Assets when they are completed. 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.

Treatment of Cost of Funds:

WDI does not capitalize interest on capital projects unless they meet the IFRS criteria of a qualifying asset which is defined in the Board's Report of the Board EB-2008-0408 Transition to International Financial Reporting Standards, June 28, 2009 as "an asset that necessarily takes substantial period of time to get ready for its intended use or sale." WDI does not have any capitalized borrowing costs forecasted in it the 2015 Bridge or 2016 Test Years. Nor has WDI capitalized any borrowing costs in the past.

Components of Other Capital Expenditures:

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

Ex.2/Tab 5/Sch.4 - Capitalization Policy

Capitalization Policy under CGAAP:

WDI follows Generally Accepted Accounting Principles, in particular the CICA Handbook Section 3060, Capital Assets as well as the guidelines as set out in the OEB Accounting Procedure Handbook.

WDI does not capitalize interest on funds used during construction as capital projects are constructed. In addition, WDI does not capitalize, through internal cost allocations, any indirect administrative support costs such as Finance or Facilities. WDI does not have a Human Resource or Corporate Services Department.

Capitalization Policy under IFRS:

WDI follows IFRS, in particular the IAS 16, Property, Plant and Equipment as well as the guidelines as set out in the OEB Accounting Procedure Handbook.

WDI does not capitalize interest on funds used during construction as capital projects are constructed. In addition, WDI does not capitalize, through internal cost allocations, any indirect administrative support costs such as Finance or Facilities.

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 the manner intended by management. All costs shall be documented, recorded historically, including methods and sources used to establish any estimated costs.

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 Policy for Capitalization and Depreciation:

WDI capital assets, and their designated service life, are categorized in Table 2-18.

Table 2-18 – assets designated service life

USoA Account Number	Description	Useful Lives
1611	Computer Software	10
1820	Distribution Station Equipment – Transformer	45
1820	Distribution Station Equipment – Equipment	40
1820	Distribution Station Equipment – Reclosures and Breakers	20
1820	Distribution Station Equipment - Structure/Civil	50
1830	Poles, Towers and Fixtures – All	45
1835	Underground Conductors and Devices- All	45
1840	Conduit	50
1845	Underground Conductor - Direct Buried	30
1850	Line Transformers – All	40
1855	Secondary Services	35
1860	Primary Metering Equipment	25
1860	GS>50 Meters	25
1860	Smart Meters	15
1908	Building and Fixtures	50
1980	System Supervisor Equipment	20
2055	Capital Leases – Communication Equipment	20
2055	Capital Leases – Towers	50

The minimum threshold for capitalizing is $500 for all capital project or expense. It is implied that a number of expenditures can be grouped together under a specified capital project in order to reach the minimum threshold and be recorded as capital asset.

Distribution Plant – General Ledger Accounts 1830 to 1860 – Poles, OH Conductors, Transformers, UG Conduit and Meters

The capitalized expenditures for these accounts include:

- Material and supplies direct costs
- Contractor Expenses

Material and Supplies Direct Costs:

The material and supplies direct cost is comprised of all the eligible material that is used on a capital project, including its freight to destination. No storage, stockroom expenses or administrative charges are added.

Contractor Expenses:

- WDI contracts Wasaga Resource Services (WRSI) and or other third party contractors for work needed to construct assets based on WDI's approved budget and capital plan.

General Ledger Account 1905 - Land Acquisition:

The recorded cost of land includes:

- The purchase price;
- Costs of closing the transaction and obtaining title, which includes but are not limited to legal fees, survey costs and land transfer taxes:
- The cost for preparing the land for its particular use such as clearing and grading. If the land is purchased for the purpose of constructing a building, all costs incurred up to the excavation for the new building should be considered land costs. Removal of an old building, clearing, grading and filling are considered land costs because they are necessary to get the land in condition for its intended purpose. Any proceeds obtained in the process of getting the land ready for its intended use, such as salvage receipts on the demolition of the old building or the sale of cleared timber, are treated as reductions in the price of the land.

Expenditures for land acquisition usually do not deteriorate with use or passage of time, therefore the cost of land is generally not exhaustible, and therefore not depreciable.

General Ledger Account 1908 – Building:

Capitalization of Building costs include, but are not limited to, the following:

- Original contract price of asset;
- Expenses for remodeling, repairing or changing a purchased building to make it available for the purpose for which it was acquired;
- Architects and engineers fees for design as well as expenses for the preparation of plans, specifications, blueprints, etc.;
- Cost of building permits.

The total cost of the building or additional square footage is then allocated among the 4 major building components.

Building Renovations/Rehabilitation:

A building renovation is defined as enhancements made to a previously existing building component. The total expenditure capitalized is based on the invoice or contract price. No administrative charges are added.

Building Outside / Fence improvements:

Building Outside / Fence improvements include items such as landscaping, driveways, sidewalks, parking lots, fencing, outdoor lighting, and other non-building improvements. Please note that Land improvements can be further categorized as non-exhaustible under account 1905 – Land acquisitions. The total project cost must meet the set minimum threshold and shall be recorded as capital based on the invoice or contract price. No administrative charges are added.

General Ledger Accounts 1915 to 1955 – Office Furniture, Computer, Vehicles, Tools and Other Equipment:

For capitalization of expenditures with a service life of more than one year, the total invoice or contract price is used, including its freight to destination. No storage, stockroom expenses or administrative charges are added.

Changes to Capitalization Policy:

WDI has implemented the regulatory accounting changes to its capitalization policy effective January 1, 2012 as evidenced in the last COS Application for rates (EB-2011-0103) effective December 1, 2012. No further changes to the capitalization policy have been made since the last COS Application.

Customer Contribution changes:

Under CGAAP, WDI recorded customer contributions as an offset to the Cost of Capital Assets and amortized accordingly. Under MIFRS, WDI cannot capitalize these customer contributions as part of its net capital assets, but instead will classify the contributions as a liability under deferred revenue and amortize the costs to revenue over the life of the asset the contribution relates to. For financial reporting purposes, WDI has classified forecasted Customer Contributions for the 2015 Bridge Year and 2016 Test Year as deferred revenue and amortized the contribution to revenue over the life of the related asset. For rate setting purposes, these costs are included as an offset to rate base and the related amortized revenue as an offset to depreciation expense. Historical Contributed Capital costs are included in Account 1995 and Forecasted Contributed Capital costs are included in Account 2440, however, both are included in the Fixed Asset Continuity Schedules and within the Rate Base calculation.

Ex.2/Tab 5/Sch.5 - Capitalization of Overhead

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

Ex.2/Tab 5/Sch.6 - Costs of Eligible Investments for Distributors

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

Ex.2/Tab 5/Sch.7 - New Policy Options for the Funding of Capital

WDI is not proposing any special or different approach of funding its capital expenditure

Ex.2/Tab 5/Sch.8 - Addition of ICM Assets to Rate Base

WDI has never applied for a rate adder to recover an investment through the OEB's Incremental Capital Module.

Ex.2/Tab 5/Sch.9 - Service Quality and Reliability Performance

WDI 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 WDI 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.

Appendix 2-G Service Reliability Indicators 2010-2014

Index	Including outages caused by loss of supply					Excluding outages caused by loss of supply				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
SAIDI	1.90	1.70	1.12	0.37	1.67	0.89	1.66	1.05	0.35	1.53
SAIFI	1.52	1.61	1.28	0.41	1.55	0.50	1.58	1.25	0.41	1.46

5 Year Historical Average				
SAIDI		1.352		1.096
SAIFI		1.274		1.040

Indicator	OEB Minimum Standard	2010	2011	2012	2013	2014
Low Voltage Connections	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%
High Voltage Connections	90.0%	n/a	n/a	n/a	n/a	n/a
Telephone Accessibility	65.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Appointments Met	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Written Response to Enquires	80.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Emergency Urban Response	80.0%	98.1%	97.6%	95.7%	93.8%	100.0%
Emergency Rural Response	80.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Telephone Call Abandon Rate	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Appointment Scheduling	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rescheduling a Missed Appointment	100.0%	n/a	n/a	n/a	n/a	n/a
Reconnection Performance Standard	85.0%	n/a	n/a	100.0%	100.0%	100.0%
Micro-embedded Generation Facilities	90.0%	n/a	n/a	n/a	100.0%	100.0%

Attachments

Attachment A - Wasaga Distribution Inc. Distribution System Plan

Wasaga Distribution Inc.

Distribution System Plan

Submitted by:

Paul Trace, CET, Director of Operations

And

Brandon Weiss, CPA, CMA, Senior Financial Accountant

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TABLE OF CONTENTS

Executive Summary

This Distribution System Plan follows the chapter and section headings set out in Chapter 5 of the filing requirements for electricity transmission and distribution prepared by Wasaga Distribution Inc.'s ("WDI") regulator, the Ontario Energy Board ("OEB"). Although the section numbering in this Distribution System Plan does not match the Chapter 5 reference numbers, the Chapter 5 reference numbers are included in each of the heading titles in brackets. The report follows the headings in the sequence required in Chapter 5

WDI has adopted budgeting processes categorizing investments according to the OEB requested investment categories. This has allowed WDI's internal processes to align with the regulator and provide consistent reporting to WDI's stakeholders.

WDI continues to coordinate planned capital work with regional partners and interested third parties and is actively involved in annual meetings allowing WDI to continually improve operation efficiencies. Additionally, WDI continues to perform well compared to industry standards, albeit, WDI has experienced recent equipment failures and has addressed the need to maintain reliability addressed within the DSP. WDI is also actively engaging their customer base to make sure WDI's operational objectives allow for customer input and is cognizant of the fact that significant costs have an impact on ratepayers.

Throughout the development of the DSP, WDI has been able to enhance their asset management process, focusing on a variety of inputs including, infrastructure, asset conditions, finance, regulatory, demand requirements, strategic objectives, and maintenance costs. This process now incorporates a more calculated approach in determining capital expenditures that was assisted by an internal assessment on the condition of assets within WDI's distribution system. Through condition assessment, WDI has determined that much of its overhead plant is approaching end of life and is the main driving force for capital investments over the forecast period. WDI intends to incorporate more rigorous testing of assets to effectively apply maintenance activities, and to assist in effective prioritization of investments and to optimize the lifecycle of the assets. Replacing assets that WDI has determined to be the most critical will assist WDI in reducing future unplanned maintenance expenses to assist in achieving cost savings. Furthermore, WDI is aware that capital investments are constrained by financial resources and appropriate planning is underway to ensure WDI is forward thinking in their approach to appropriately maintain WDI's distribution system.

WDI's capital expenditure plan for the forecast period has increased to $1.19 million compared to the prior year actual and bridge year of $1.06 million for an expected 12% annual increase over the forecast period. This expected increase is to accommodate the increase in system renewal investments that includes the replacement of 725 poles, 10 km of conductor and 225 overhead transformers that are at the end of their useful lives. WDI has planned for the increase of System Renewal projects and based on the extrapolation of the historical trend leads WDI to expect that System Access investments required in the forecast period will decrease relative to the historical trend. WDI does not have significant investments planned for general plant over the forecast period.

WDI capital plan still forecasts a consistent growth of 1.5% per year on WDI's customer base and includes a 2.5 km investment along Sunnidale Road for a new Pole Line to accommodate a large

development. Additionally, WDI has also forecasted for a road widening project driven by the Town of Wasaga Beach on River Road West as indicated in the Town's 10 year capital forecast plan.

Overall, WDI feels that the investments as identified in the DSP address WDI's needs to update their aging overhead plant to allow WDI to maintain acceptable reliability levels throughout the forecast period. WDI also feels that they have identified the current need for continued growth within WDI's service territory to appropriately meet the growth of WDI's service territory and third party requirements.

1. Introduction

This Distribution System Plan follows the chapter and section headings set out in Chapter 5 of the filing requirements for electricity transmission and distribution prepared by Wasaga Distribution Inc.'s ("WDI") regulator, the Ontario Energy Board ("OEB"). Although the section numbering in this Distribution System Plan does not match the Chapter 5 reference numbers, the Chapter 5 reference numbers are included in each of the heading titles in brackets. The report follows the headings in the sequence required in Chapter 5. The information in this report was prepared by WDI and a final review was completed by Acumen Engineered Solutions International Inc. with the accompanying letter provided in Appendix D.

1.1. Utility Overview

WDI serves the Town of Wasaga Beach to its borders with electricity and is 100% owned by the Town of Wasaga Beach. As it is commonly known, Wasaga Beach is a tourist town, with a growing population. The present population, as provided by the Town, is over 18,000, with a total service area of 61 square kilometers. The utility presently serves approximately 13,000 customers and has more than 265 kilometers of conductor, both overhead and underground. The system also has more than 1,500 distribution transformers, and approximately 5,100 poles in service, fed from five owned, and one shared distribution stations.

The Town of Wasaga Beach was incorporated on May 16, 1976, and in the process grew from a population of about 600 to 5,000 overnight. In the process, WDI inherited the existing distribution system from the former Ontario Hydro. This is reflected in the asset data presented later in the plan.

WDI is governed by a Board of Directors appointed by the Town of Wasaga Beach.

WDI has seen significant growth in the community over the last 10 years as shown in the Table 1. WDI has also seen a shift from a town of primarily smaller cottages used on a seasonal basis, with electric heat, being replaced by much larger homes, equipped with gas heat and air conditioning. New subdivision expansions follow similar standards. This has caused a significant expansion in the WDI system, and a change in the system utilization and load pattern. WDI load patterns are still largely dependent on tourism, which is heavily dependent on the weather.

Table 1 - 10 Year Customer and Load Growth

	Customers	Average kW	Annual kWh
Increase of 10 years	29.33%	25.5%	23.46%
2014	13,029	22,138.7	129,721,073
2009	11,836	20,638.6	123,800,273
2004	10,074	17,642.5	105,068,137

The historical cumulative 10-year growth rate clearly demonstrates the significant growth of the Wasaga Beach community and the corresponding load requirements and supporting system infrastructure, required to service the new customers.

WDI operates a 44kV sub-transmission network which is fully embedded with the Hydro One Networks Inc. ("HONI") system. WDI delivers power to its customers via three feeders from Stayner TS, which is owned by Hydro One. Revenue is earned by WDI delivering electric power to the homes and businesses in the service territory. The rates charged for this and the performance standards that the energy delivery system must meet are regulated by the OEB.

This Distribution System Plan ("DSP") documents WDI's Asset Management Plan and the Capital Expenditure Plan. The DSP covers the period from 2011 to 2020. The current date for all the information provided is August 2015, except where noted otherwise. This report reflects the costs incurred and the practices in place as of this date. The financial data incorporates the financial results of WDI for the year ended December 31, 2014. The 2015 Financial information is based on the actual to July 1, and a forecast for the remainder of 2015.

WDI has translated all the capital expenditures to the investment categories as required in the Chapter 5 section 5.2.1 filing requirements.

For the purposes of this DSP, 2011 to 2014 are the historical period, 2015 is the current year (bridge year), 2016 is the Test Year and 2017 to 2020 are the forecast years.

A summary of the type and number of assets, as well as the age distribution, is provided. The maintenance cost per year is provided as required.

The process WDI uses to assess the condition of its assets has been documented within the plan.

The Capital Expenditure Forecast for the 2016 to 2020 time period and the Historical Capital Budget and Actual Expenditure information for the 2011 to 2015 time period is found in section 4.4 [5.4.4] Table 28.

The materiality threshold for detailed reporting of projects is $50,000.

WDI gathers relevant information about the assets and uses the judgment and the experience of its staff to interpret this information to develop appropriate cost effective programs that deliver reliable service to its customers at a reasonable cost.

1.2. [5.1.2] Investments Related to Renewable Energy Generation (REG)

WDI has a total of twenty six (26) microFIT renewable energy generation installations presently connected to their distribution system under the province's Feed-in-Tariff (FIT) and microFIT programs. There are presently four (4) proposed microFIT installations totaling 38.7kW currently registered with the IESO, which have not yet proceeded to the connection stage, and three (3) FIT projects totaling 260kW currently in the queue, which are scheduled to be connected by the end of 2015. There are currently no constraints in the distribution system preventing connection of additional distributed generation from renewable sources to the distribution system. WDI does not anticipate any material investments related to the connection of distributed or renewable generation over the forecast period.

2. [5.2] Distribution System Plan

2.1. [5.2.1] Distribution System Plan Overview

For the purposes of this Distribution System Plan, 2011 to 2014 are the previous 4 years, 2015 is the Bridge Year, 2016 is the Test Year and 2017 to 2020 are the forecast years.

WDI expects business conditions to have a negative impact on capital investments relative to what historical trends have indicated over the forecast period of this report. The Town of Wasaga Beach continues to grow; however, the rate of growth has decreased relative to recent historical trends. It is felt that the decrease in growth rate includes, but are not limited to, the increased cost of fuel, decline in tourism, and increase in housing prices relative to surrounding areas. WDI has forecasted an annual growth rate of approximately 1.5% in the residential and commercial sectors as there are still developments planned, although timing is uncertain and market dependent. WDI has included, in Appendix B, all active and proposed developments as of October 2014 as per the Town of Wasaga Beach planning department (http://www.wasagabeach.com/town-hall/planning-development). All known expansion plans for commercial and residential segments are driven by retirees moving into the town boundaries and the growth of the economies in the surrounding areas. Planned expansions could require significant investments on behalf of WDI to supply services as required.

WDI has invested in a culture that prioritizes safety as a key factor in business operations.

WDI has prepared their DSP and Asset Condition Assessment using the Typical Useful Life (TULs) and Maximum Useful Life (MULs) as provided and determined in the Kinectrics Inc. Asset Depreciation Study for the OEB published July 8th, 2010. WDI has slightly modified the useful lives used based on experience in this particular geographic area. WDI adopted new useful lives for depreciation purposes January 1, 2012. Table 2 details the asset by classes.

Table 2 - WDI's Asset Class useful life

Asset Details	Asset Useful Life		
	Kinectrics Inc.		WDI
	TUL	MAX UL	
Power Transformers	45	60	45
Switchgear	40	60	40
Digital Relays	20	20	20
Station Breakers	45	65	40
MS Steel Structure	50	90	50
Fully Dressed Wood Poles	40	55	45
OH Line Switch	45	55	45
OH Conductors	60	75	45
Pole Mounted Transformers	40	60	50
Power Transformers	45	60	45
Station Metal Clad Switchgear	40	60	40
Solid State Relays	30	45	20
Primary Non-TR XLPE Cables in Duct	25	30	30
Secondary Cables Direct Buried	35	40	35
Pad Mounted Transformers	40	45	40
Industrial/Commercial Energy Meters	35	35	25
Wholesale Energy Meters	30	30	25
Smart Meters	15	15	15

WDI's has a significant portion of overhead plant that is approaching the end of its useful life and will no longer be able to serve its purpose. An internal assessment of the condition of the system was carried out using in-house resources. This assessment identified a need for a replacement program in excess of 1,900 poles, 10km of overhead conductor, and 175 overhead transformers over the forecast period. The replacement will include increased capacity with a new pole line to meet the town's growth on Sunnidale Road, River Road West road widening project, and the replacement pole line on Mosley Street. WDI expects to be able to allocate specific resources and coordinate the projects geographically within WDI's territory to increase crew efficiencies and achieve cost savings on capital investments. Additionally, WDI should be able to maintain reliability and minimize unplanned service interruptions with their system renewal investment projects, therefore avoiding unexpected costs. WDI intends to spread out infrastructure renewal investments projects over the forecast period to avoid lumpy investments. WDI recognizes that all the work identified in the Asset Condition Assessment cannot be completed in a single year and therefore will prioritize and schedule work to assist WDI in infrastructure renewal projects.

WDI's underground plant is mostly direct buried and is relatively new and the condition assessment of the system identified no foreseeable upgrades or replacements required during the forecast period. However, since WDI experienced significant growth in the mid-90s; WDI will have to plan strategically to meet the need to replace underground plant as these assets near the end of their life in the next forecast period. WDI's current investment strategy would allocate resources in the

current forecast period for system renewal investment projects focusing on overhead plant, which would allow WDI to shift resources to underground plant in the next forecast period as WDI's underground plant ages. In the event WDI needs to replace underground plant, WDI will replace like for like in an emergency situation.

Overhead Plant failures have not been a frequent occurrence, although WDI has significant assets nearing the anticipated end of their useful lives. WDI has created a condition assessment methodology that has identified the replacement of assets which is mostly driven by the age of the plant; however other health indices have been taken into consideration including visual inspections, and loading profiles. WDI has experienced system failures due to 15kV porcelain insulators which have been identified through outage reporting and reliability indicators. Therefore WDI has initiated an insulator replacement program. Although this is not a material project, this project began in 2015 and is expected to be finished by 2017 the priority is to work from the station outwards. Porcelain insulator failures often occur outside of normal working hours which cause power restoration to take place at premium wage rates. WDI expects these occurrences to be significantly reduced once the project is complete, thus maintaining reliability indicators.

WDI began their Smart Meters implementation in 2008 and completed in 2011. WDI continues to invest in Smart Meters through the growth of the utility and is currently investing in the replacement of 1st generation Smart Meters that cannot be encrypted for cyber security purposes. This was a risk that was identified through security testing conducted by Bell Wurldtech Network Security Audit. WDI will continue to monitor the lifecycle of their Smart Metering assets as the seal period expires as governed by Measurement Canada standards. At this time, and with the best available information, WDI does not expect to replace these assets during the forecast period.

As identified in WDI's 2010 Asset Management Plan, filed with WDI's 2012 Cost of Service Rate ("COS") Application Board (EB-2011-0103), WDI recognized the need to appropriately plan for aging infrastructure. Consequently, and as identified in WDI's condition assessment, investments for replacement projects have increased and will continue to increase throughout the forecast period. WDI has enhanced the condition assessment to assist in more accurate planning through improved analytics, and process refinements as indicated in section 3.2[5.3.2]. It should be noted that an IESO regional planning study is currently being finalized with input from local utilities. Currently there have been no projects identified that will require significant investments by WDI.

In 2012, Wasaga Distribution invested in a SCADA system at its five Municipal Stations. Furthermore, WDI utilizes the services of Utilismart to provide remote meter readings to some of its stations, PMEs, large customers, and generation customers. This assists in more accurate and timely station and feeder loading models. Additionally, WDI implemented a GIS to assist in mapping assets, and improving data input for increased system optimization.

The data in the DSP is current as of the end of August 2015 unless indicated otherwise in a specific section of the report.

2.2. [5.2.2] Coordinated Planning With Third Parties

WDI coordinates with the capital programs undertaken by the Town of Wasaga Beach. WDI monitors the plans of the Town, the scope of work and the impact on existing plant as well as the

timing proposed by the Town for their programs. WDI responds in a timely manner when the projects are committed to by the Town.

Similarly, WDI monitors the plans of the MTO and responds to any requirements and obligations it has with respect to its plant on Provincial Public Rights of Way.

WDI was invited to participate in the IESO regional planning study which is currently being finalized with input from local utilities. Currently there have been no projects identified that will require significant investments by WDI. WDI further consults with HONI on forecasting load requirements. There have been no significant investment projects identified with HONI.

WDI attends annual utility coordination meetings which include; but not limited to, the Town of Wasaga Beach, Bell Communications, Rogers Communication, and Enbridge Gas. The meetings look at short and long term projects that have the potential to achieve cost savings by working collaboratively. Current projects include Bell FTTH (fiber to the home), road widening, and bridge replacements.

WDI currently has a functioning SCADA system, however would like to add an OMS (outage management system). At this time, WDI has not spent a significant amount of time investigating the technology and cost available.

There are no new studies that WDI has been part of and thus there are no deliverables and plans to be incorporated.

In accordance with the filing requirements a report outlining WDI's REG plan was sent to the IESO. The response to this report can be found in Appendix A. In summary, IESO concurs with the plan and report submitted by WDI.

2.3. [5.2.3] Performance Measurement for Continuous Improvement

WDI is aware of and pays close attention to the customer oriented performance of the utility. Consequently, WDI monitors the reliability performance of its system. Power quality has not been an issue at WDI and it has not been raised as an issue by the public in the WDI service area. Maintaining distribution system reliability and quality is a core objective of WDI. Key quantitative metrics include; SAIDI, CAIDI and SAIFI as summarized in the table below:

	2010	2011	2012	2013	2014
CAIDI	1.77	1.05	0.84	0.85	1.05
SAIDI	0.89	1.66	1.05	0.35	1.53*
SAIFI	0.50	1.58	1.25	0.41	1.46*

Reliability Statistics for the Historical Period (2010 – 2013 are adjusted for loss of supply as presented in the yearbook, 2014 is loss adjusted based on outage coding provided)

***On June 2, 2014 WDI experienced a large wind storm that caused a large outage to the entire 44kV system that impacted all of WDI's customers.**

Additional details and analysis are presented below. The calculation of the reliability indices is based on outage information as gathered and presented by WDI. A summary of this information is presented below:

WDI uses OEB defined Outage Codes, which are identified below:

Cause of Service Interruption

Code	Cause
0	**Unknown/Other** *Customer interruptions with no apparent cause that contributed to the outage*
1	**Scheduled Outage** *Customers interruptions due to the disconnection at a selected time for the purpose of construction or preventive maintenance*
2	**Loss of Supply** *Customer Interruptions due to problems in the bulk electricity supply*
3	**Tree Contacts** *Customer Interruptions caused by faults resulting from tree contact with energized circuits*
4	**Lightning** *Customer Interruptions due to lightning striking the distribution system, resulting in an insulation breakdown and/or flash-over*
5	**Defective Equipment** *Customer Interruptions resulting from equipment failures due to deterioration from age, incorrect maintenance or imminent failures detected by maintenance*
6	**Adverse Weather** *Customer Interruptions resulting from rain, ice storms, snow, winds, extreme temperatures, freezing rain, frost, or other extreme weather conditions*
7	**Adverse Environment** *Customer Interruptions due to equipment being subject to abnormal envirnments , such as salt spray, industrial contamination, humidity, corrosion, vibration, or fire*
8	**Human Element** *Customer Interruptions due to the interface of distribution staff with the system*
9	**Foreign Interference** *Customer Interference beyond the control of the distributor, such as animals, vehicles, dig-ins, vandalism, sabotage, and foreign objects*

Figure 1 is an indication of the total number of interruptions by cause codes over the period of 2010 - 2014. It can clearly be seen that the majority of outages are (1) *Scheduled Outages.* This would hold true due to the fact that many of the scheduled outages are because of capital system renewable projects while transferring conductors. The second highest cause of outages is (5) *Defective*

Equipment. This would include insulator failures, transformer failures and secondary connector failures. Other outage causes to note would be (3) *Tree Contacts* and (0) *Unknown/Other.*

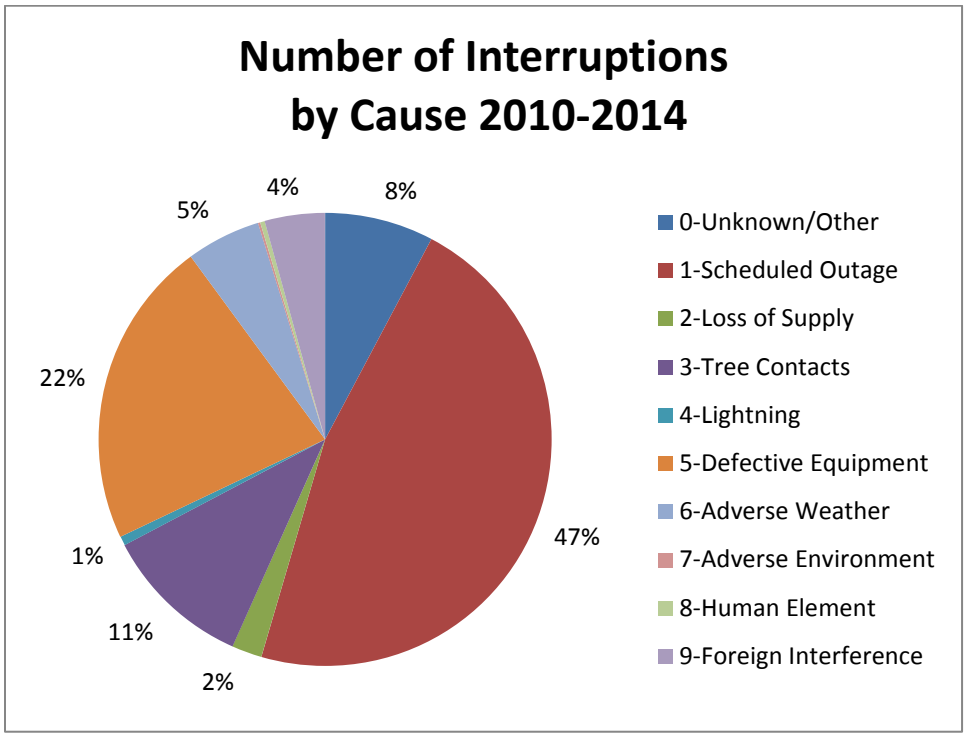


Figure 1 - Number of Interruptions

Although Figure 1 is an indication of the number of outages, it's not a true representation of the number of customer hours of interruptions caused by the outages. With this in-mind we have included Figure 2 which shows the customer hours of interruptions by cause code.

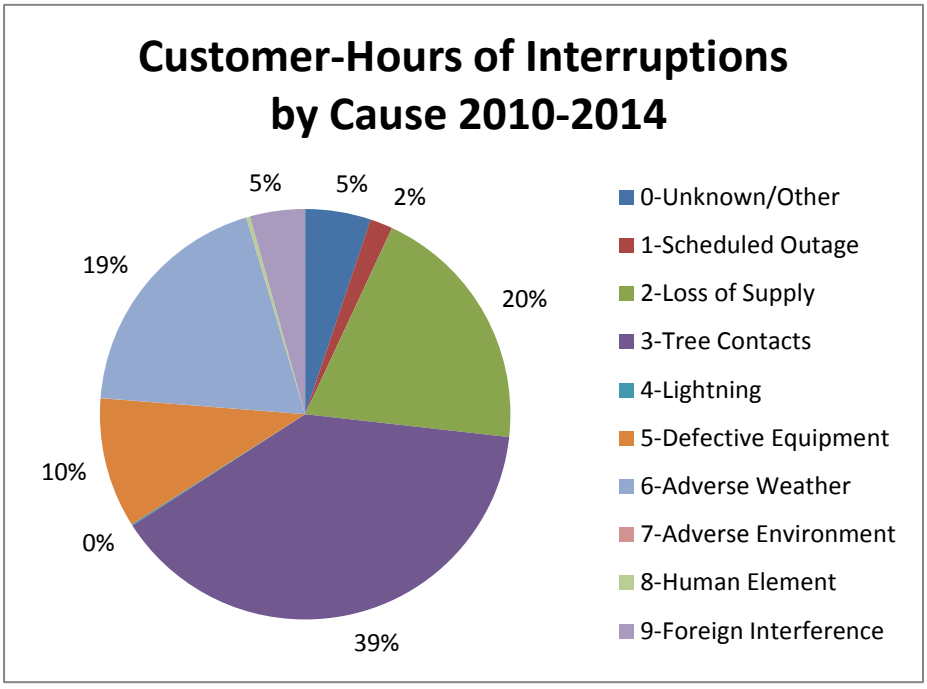


Figure 2 – Customer hours of Interruptions

Figure 2 above illustrates a better indication of the areas of concern. (3) *Tree Contacts* is now the top cause of customer hours of interruptions where it was the third highest in number of interruptions. This is usually the case as a tree contact would cause outages to more customers at a time. (6)*Adverse Weather* sometimes gets misinterpreted as (3) *Tree Contact* and vice versa however with the exception of (2) *Loss of Supply* which we have little or no control over, these are the largest causes of interruptions.

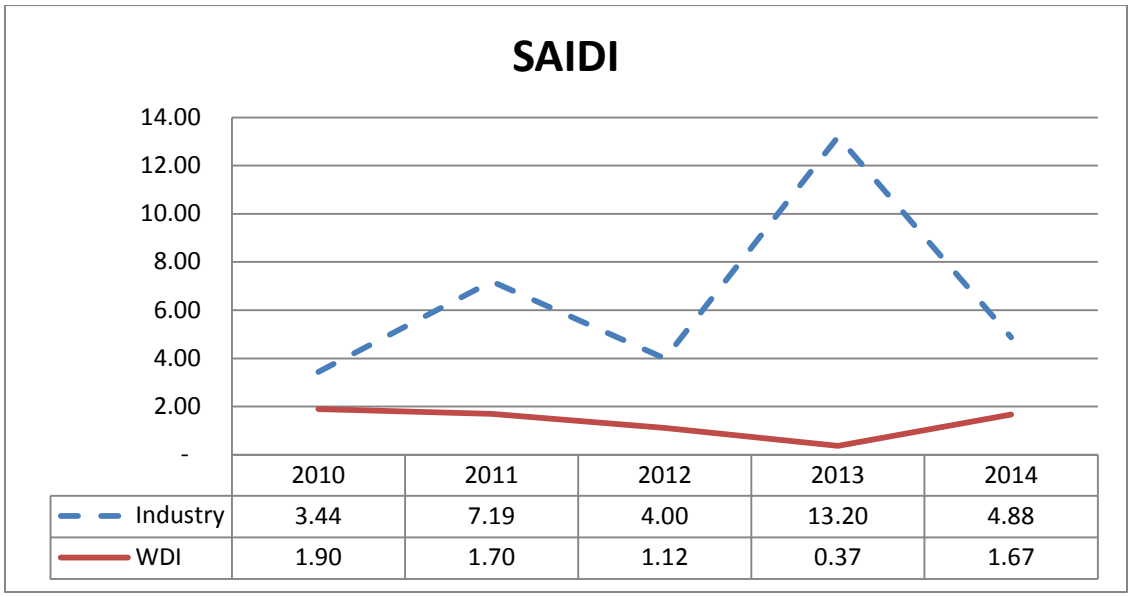
Another cause which is of concern is (5) *Defective Equipment* which accounted from 10% of the total customer hours of interruptions over the five year period. As stated in the previous chart this has been from defective insulators and transformers. WDI had a couple of incidents with 15kV insulator failures causing feeders to be de-energized for long periods of time.

Cause Codes along with system reliability performance indicators were tabulated to show trends and possible areas of concern.

System Average Interruption Duration Index (SAIDI)

SAIDI is an indicator used to calculate the average length of time a customer is without power in the year.

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



	2010	2011	2012	2013	2014
Industry	3.44	7.19	4.00	13.20	4.88
WDI	1.90	1.70	1.12	0.37	1.67

Figure 3 - SAIDI

Figure 3 compares WDI's SAIDI indices with the industry average. WDI's 5 year average SAIDI is 1.348 including Loss of Supply interruptions. WDI works to maintain these levels of performance and strives to perform above industry average. Table 3 further breaks down interruptions by cause code.

Table 3 - SAIDI by cause code

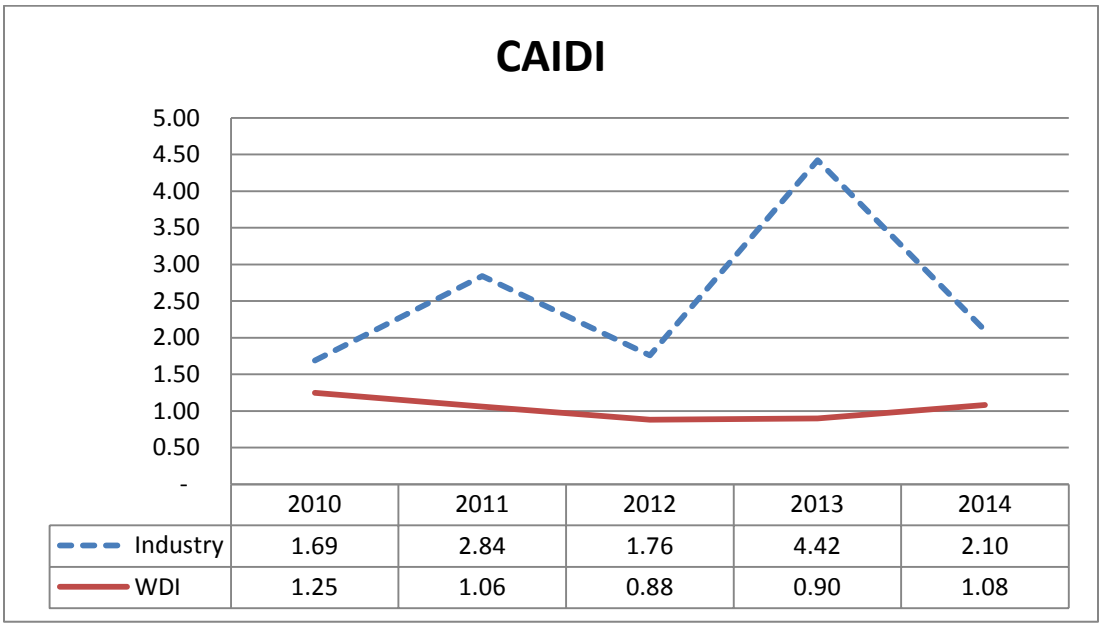
Cause	2010	2011	2012	2013	2014
0	0.05	0.05	0.14	0.09	0.00
1	0.01	0.06	0.01	0.01	0.02
2	1.01	0.04	0.07	0.04	0.14
3	0.16	0.79	0.16	0.15	1.17
4	0.00	0.01	0.00	0.00	0.00
5	0.29	0.06	0.03	0.01	0.25
6	0.38	0.08	0.69	0.00	0.07
7	0.00	0.00	0.00	0.00	0.00
8	0.00	0.02	0.00	0.00	0.00
9	0.00	0.14	0.02	0.08	0.03

WDI's customers, on average, are not without power for great lengths of time. June 2, 2014 was an exception as a large wind storm caused a tree to fall into the 44kV lines and disrupt power to the entire system.

Customer Average Interruption Duration Index (CAIDI)

CAIDI is an indicator used to calculate the average duration of each interruption in the year.

$$\text{CAIDI} = \frac{\textit{Total Customer Hours of Interruptions}}{\textit{Total Customers Interruptions}}$$



	2010	2011	2012	2013	2014
Industry	1.69	2.84	1.76	4.42	2.10
WDI	1.25	1.06	0.88	0.90	1.08

Figure 4 - CAIDI

Figure 4 compares WDI's CAIDI indices with the industry average. WDI's 5 year average CAIDI is 1.03 including Loss of Supply interruptions. WDI works to maintain these levels of performance and strives to perform above industry average. Table 4 further breaks down interruptions by cause code.

Table 4 - CAIDI by cause code

Cause	2010	2011	2012	2013	2014
0	1.65	1.92	1.19	0.72	0.14
1	0.72	0.55	0.62	1.00	0.66
2	0.99	1.41	3.00	2.00	1.59
3	1.28	2.21	2.99	1.08	1.11
4	5.50	0.90	0.00	0.00	1.25
5	1.84	1.42	1.39	1.15	1.21
6	2.16	0.67	0.67	0.00	2.13
7	0.00	0.00	0.00	0.50	0.00
8	0.00	0.18	0.00	0.00	0.00
9	0.85	1.44	1.21	0.74	0.19

The average interruption duration can vary year to year. The largest fluctuation is under the (6)*Adverse Weather* code which would hold true, as a large storm could cause several outages and take crews longer to attend at various locations. (2)*Loss of Supply* again is something WDI has no control over and we are at the mercy of Hydro One as to the duration of the outage*. (3) Tree Contact* again is seen as a constant cause, for outages of longer duration simply because there is usually more damage.

System Average Interruption Frequency Index (SAIFI)

SAIFI is an indicator used to calculate the average number of interruptions per customer in the year.

$$SAIFI = \frac{Total\ Customer\ Interruptions}{Total\ Customer\ Served}$$

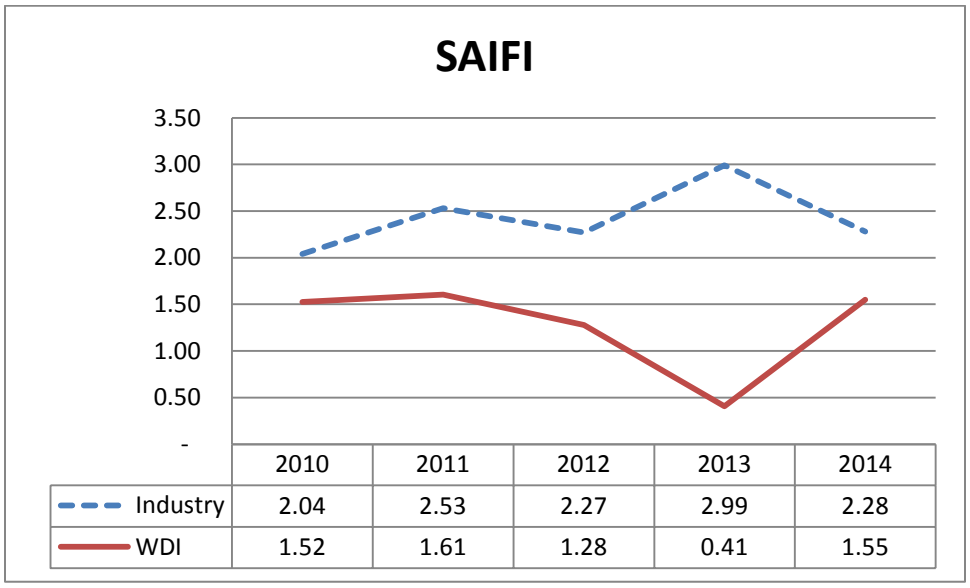


Figure 5 - SAIFI

Figure 5 compares WDI's SAIFI indices with the industry average. WDI's 5 year average SAIFI is 1.27 including Loss of Supply interruptions. WDI works to maintain these levels of performance and strives to perform above industry average. Table 5 further breaks down interruptions by cause code.

Table 5 - SAIFI by cause code

Cause	2010	2011	2012	2013	2014
0	0.03	0.02	0.12	0.12	0.00
1	0.01	0.11	0.02	0.01	0.03
2	1.02	0.03	0.02	0.02	0.09
3	0.13	0.36	0.05	0.14	1.06
4	0.00	0.01	0.00	0.00	0.00
5	0.16	0.05	0.02	0.01	0.20
6	0.17	0.12	1.02	0.00	0.03
7	0.00	0.00	0.00	0.00	0.00
8	0.00	0.11	0.00	0.00	0.00
9	0.00	0.10	0.02	0.11	0.13

The average number of interruptions per customer is fairly low. Once again *(3) Tree Contacts* is the only indictor of any significance.

The outage performance indicators are used as an aid in WDI's operating and system design practices. In the past WDI has concentrated on locating the point of system failure and making repairs to restore power. WDI is considering a move to concentrate on the restoration of power to as many customers as possible through system switching before commencing any repair activities. By doing this WDI expects to restore a significant number of customers to full power sooner thereby improving its CAIDI and SAIDI performance. To accomplish this WDI will review its system's ability to restore customers through switching in addition to identifying strategic points for the installation of additional switches to maintain focus on system optimization and the use of data analytics accumulated through system software. This will reduce the duration of customer outages that the system experiences and thus improve the customer experience.

Another observation identified by WDI is the 15kV porcelain insulators. These are older insulators and have a history of failing. While the number of failures has been modest, they are associated with major power interruptions. In addition to the negative impact on the reliability performance of the power system, they also present a potential safety hazard to the public because of the low hanging conductor which is often the cause when an insulator fails. WDI plans to replace insulators over a three year period starting in 2015 and beginning with the locations closest to the municipal stations where there is the largest possibility of outages.

WDI has completed a detailed asset condition assessment of all of their plant. This is to assess the condition of the assets using a calculated and systematic approach in identifying assets that are in need of replacement or at risk of failing over the forecast period. WDI did this to be able to properly

plan the replacement of its at risk assets but in a planned, affordable cost effective manner and gradual impact on the customer's cost of power.

These steps are expected to result in a modest improvement of system outage performance, allowing WDI to maintain their 5 year average performance indices. Additionally, WDI will benefit from improved safety of the power system for the public and enhance the customer experience while incurring modest capital cost. By the replacement of the porcelain insulators starting at the municipal stations, the risk of injury to the public is reduced as much as possible and as quickly as possible recognizing that failures are infrequent at present but could cause injury. The result is a planned and a cost effective method of addressing the issues discovered by the Distribution System Planning process from both the management of the assets and the capital expenditure planning process perspectives

In addition to the previous performance indicators WDI incorporates customer feedback into the planning process. Being a small utility and living in the community means that customer concerns are communicated quite easily just by interaction.

WDI has been conducting surveys of their customer base over the last couple of years. The responses have indicated that customers are happy with WDI's current capital spending program and reliability of the distribution system. Customers have also indicated that energy costs have an impact on their budget and that cost of energy is a concern. The results of the surveys are included in this rate filing at Exhibit 1, Tab 3, Schedule 2. It should be noted that the cost of electricity are frequently commented on.

According, the summary of the surveys, with select responses have been summarized as follows:

CHEC (Cornerstone Hydro Electric Concepts Inc.) Joint Utilities Survey – Utility PULSE – June 2014

- Customers are concerned about the cost of electricity
- Customers are adaptive to change within the energy sector
- 88% agree that the utility provides excellent quality of services
- 78% agree that the utility operates a cost effective hydro-electric system

Customer Service Results – Home and Garden Show, April 2015 – Contest Survey (153 responses)

- Customers on average scored WDI 81% for customer satisfaction
- Customers on average scored WDI 73% with preference to reliability with the understanding that higher costs could occur.

Customer Service Survey – WDI (Survey Monkey), July 2015 (471 responses)

- 94% of responses indicated that the cost of electricity is impactful on their household budget
- 65-80% of responses indicated that the cost efficiencies and reliability of energy services are the most important aspect of service, compared to Customer Service and Energy Conservation
- 88% rated the overall value of their electricity service between good to excellent
- 85% of respondents stated that they find the existing level of spending and reliability to be acceptable
- 95% rated WDI's performance in restoring service from good to excellent

- 97% of respondents indicated WDI is a respected company in the community.

Overall, WDI customers are satisfied with the service they receive and WDI's system reliability. They perceive the cost of power as a good deal when compared to other services, but the cost of power does impact their budget. The respondents also believe WDI is highly respected in the community.

These results demonstrate that WDI is paying attention to customer oriented performance and is meeting the customer's expected performance very well.

WDI monitors the reliability performance of its system. While no one wants to have power interruptions, the customers have not raised any special concerns in this area of performance.

Power quality is not and has not been an issue raised by the public in the WDI service area.

Planning Performance:

WDI has prepared this DSP in accordance with their strategic plan completed in 2014 provided in Appendix E. WDI's Asset Management Objectives guide it towards the attainment of the OEB RRFE Outcomes and are based on WDI's corporate Mission and Vision.

WDI's Vision:

- As WDI looks to the future, it will remain fully focused on the needs and priorities of the Community in delivering safe, reliable, and efficient electrical power in its service area.
- WDI will continue to build long term value for customers and shareholders alike and places a very strong emphasis on operation excellence and productivity gain.
- WDI will continue its cooperative endeavors with other like-minded LDC's within the CHEC group of companies to realize operating efficiencies and cost savings for customers.

WDI's Mission:

- To provide our customers with excellent products and services in a competitive, safe, reliable and efficient manner, while always recognizing our community and environmental responsibilities.

WDI's vision and mission help to guide it to achieve the four RRFE outcomes as prescribed by the OEB:

- Customer Focus
- Operational Effectiveness
- Public Policy Responsiveness
- Financial Performance

Asset Management objectives are used to link the corporate mission and vision to the more practical aspect of managing the corporate assets. They would also be used to measure the success of the Asset Management Plan. The objectives are expressed in the following key goals:

Safety:

The safety goal is to ensure that the safety of the public, of workers remains the number one priority.

Measure	Target
Lost/non-lost time injuries	Zero
ESA Non- Compliance	Zero (Max 1 Needs Improvement)

Reliability:

The reliability Goal is to ensure the appropriate management of the system and assets to provide a sustainable and reliable service to our customers.

Measure	Target
SAIDI	past 5 year rolling average
SAIFI	past 5 year rolling average

Customer Service:

The Customer Service goal is to ensure that the goals of the asset management plan and the plan itself is relevant and is delivering service and information to customers in the way in which they would like to receive it.

Measure	Target
Customer Survey response	Customer survey results => previous year for : a) Customer Care b) Company Image c) Operational Efficiencies

Financial Integrity:

The Financial Integrity Goal is to ensure that maintenance program and prioritized investments are scheduled and delivered on time to mitigate rate impacts while managing acceptable levels of risk.

Measure	Target
Investment Spending	Annual OM&A +/- 5%; Annual Capital +/-10%
Investment Scheduling	>80% annual projects/ programs completed on time

Environmental Stewardship:

The Environmental Stewardship Goal is to ensure that environmental protection remains a priority.

Measure	Target
Reportable spills to the MOE	Zero reportable spills to MOE

According to the 2014 PEG report, WDI continues to perform well with a cost per customer of $423 of which is ranked 3rd lowest in the province and a cost per kilometer of line at $19,328 of which is ranked 15th lowest in the province. Overall efficiency rating of -40.3% is ranked 2nd best in the province and clearing indicates WDI's focus on operational performance.

WDI's Asset Management process has incorporated WDI's strategic plan, finance and regulatory requirements, maintenance, asset condition assessment, impacts on load growth, demand management and infrastructure development into their decision making process to ensure appropriate planning is undertaken. This robust process should allow WDI to maintain key performance indicators such as service quality, system reliability and control costs.

WDI has identified its' capital requirements using the investment categories indicated by the OEB. WDI remains financially responsible to their shareholders and their customers based on feedback received.

The System Access requirements are driven by third parties such as customers and other authorities. WDI's focus in the past has been on investing in system access, simply because of customer load growth being at over 29% within the last 10 years. At present these requirements are dependent on developments and growth within WDI's territory. The majority of the projects receive significant funds from customer contributions. For the forecast period WDI expects customer growth to be approximately 1.5% per year. This forecasted growth will require WDI to upgrade a current pole line 2.5km to meet this demand. WDI will continue to invest in service upgrades and new services. Furthermore, WDI expects to continue with the River Road West road widening project as required by the Town of Wasaga Beach and indicated in the Town's 10 year capital plan.

The System Renewal projects are required for the replacement of WDI's aging assets, including pole, transformer, insulator, and conductor replacement programs. Many poles and transformers are replaced with scheduled line rebuilds. Those that are not prioritized for immediate replacement are addressed on an individual basis. These investments are in line with the Asset Management objectives set forth in WDI's Asset Management Plan originally created in 2010 and updated in 2015, in addition to WDI's long term objectives. WDI has identified over 1900 poles that are currently in service, past their typical useful life ("TUL"), and determined to be in poor to critical condition. Accordingly, due to project prioritization, the need to maintain consistent capital expenditures over the forecast period, and addressing WDI's customer concerns, WDI has determined 725 poles should be replaced during the forecast period. Additionally WDI identified over 225 transformers all past their TUL life with loading concerns as identified in WDI's asset condition assessment which has deemed these transformers to be in poor to critical condition. These transformers will need to be replaced over the forecast period. WDI will replace these transformers with new transformers that are built to higher standards. Furthermore with the replacement of the poles and transformers, along with upgrades to an existing pole line to accommodate development WDI will be able to replace over 10km of conductors determined to be past its TUL further identified in section 3.2 [5.3.2].

WDI's completed an Asset Management Plan in 2010 and was filed with WDI's 2012 Cost of Service application (EB-2011-0103).

The actual plant capital expenditures and WDI's 2010 asset management plan from 2011 to 2014 are shown in Table 6 below:

Table 6 - Historical Capital Expenditures

	2011			2012			2013			2014			2015		
Category	Plan	Actual	% Variance	Plan	Actual	% Variance	Plan	Actual	% Variance	Plan	Actual	% Variance	Plan	Actual	% Variance
System Access	775	237	-69.5	513	499	-2.6%	745	439	-41.0%	677	876	29.3%	585	585	0.0%
System Renewal	167	92	-44.7%	126	603	378.5%	126	306	142.7%	126	216	71.3%	335	335	0.0%
System Service	55	0	-100%	50	257	413.5%	65	6	-90.6%	65	2	-97.0%	0	0	0.0%
General Plant	0	28	--	0	113	--	0	493		0	96	0.0%	135	135	0.0%
Total Expenditures	997	356	-64.3%	686	1,472	77.5%	936	1,244	32.9%	868	1,189	36.9%	1,050	1,050	0.0%

As illustrated in Table 6, the plant capital plan-to-actual figures have a large variance. The planning and rationale for the capital work for WDI's Asset Management Plan was completed in 2010 and was submitted with WDI's 2012 Cost of Service Rate filing (EB-2011-0103).

WDI's original Asset Management plan was completed before the currently categories, as listed in Table 5, were identified (System Access, System Renewal, System Service, and General Plant). WDI's original plan categories were driven by WDI's general ledger accounts, with the expenditures being allocated between new construction and line improvements. Consequently, WDI's interpretation of new construction programs in the 2010 Asset Management Plan would include a combination of System Access and System Renewal projects, if the categories were used today for comparison. WDI has chosen to classify new construction projects solely as System Access as it is felt that no reasonable assumptions at this time could be made otherwise. For the sole purpose of comparing the original plan to actual expenditures System Access and System Renewal should be grouped together in the year reported.

WDI's actual expenditures reported are based on actual assets capitalized in the year reported and follow current MIFRS standards, using the OEB's guidelines, with contributed capital included. WDI's original Asset Management Plan was based on cash expenditures, which subsequently created timing difference. WDI provided detailed expenditures for 2010, and 2011 reported to the regulator (EB-2011-0103), 2012-2014 were projected as estimates.

Variances between Plan and Actual (System Access and System Renewal):

- During 2011, River Road East and Highway 26 pole line expansions/upgrades were originally planned to be completed in 2011, consequently, these were completed in 2012. The gross difference would account for approximately $700,000 timing difference.
- During 2012, 2013, and 2014 there was no specific material variances, otherwise noted in 2011. These differences were timing differences.

Variances between Plan and Actual (System Service):

- During 2011, Station metering was planned, but never implemented. Additionally, Smart Metering installations were not included in the original Asset Management Plan.

- During 2012, Station metering was planned, instead, SCADA, as well as VLAN communication equipment to communicate with the SCADA was installed. Additionally, Smart Metering installations were not included in the original Asset Management Plan.
- During 2013, there was no material difference.
- During 2014, there were no new investments in Smart Meters.

Variances between Plan and Actual (General Plant):

- This category was not considered in the original Asset Management Plan as management was unaware of guidelines for reporting at that time. The actual expenditures in this category included an upgrade to WDI's service centre building, land purchases for increased storage capacity, and an upgrade to the administration building.

Overall, actual historical four year averages from 2011-2014, when combing the investment categories of System Renewal and System Access and comparing to WDI's 2010 Asset Management Plan is shown in Figure 6. As can be seen, when comparing the average spent over a four year period WDI's variances were almost nil, and not material. The only exception was General Plant, which as noted was not considered in WDI's 2010 Asset Management Plan.

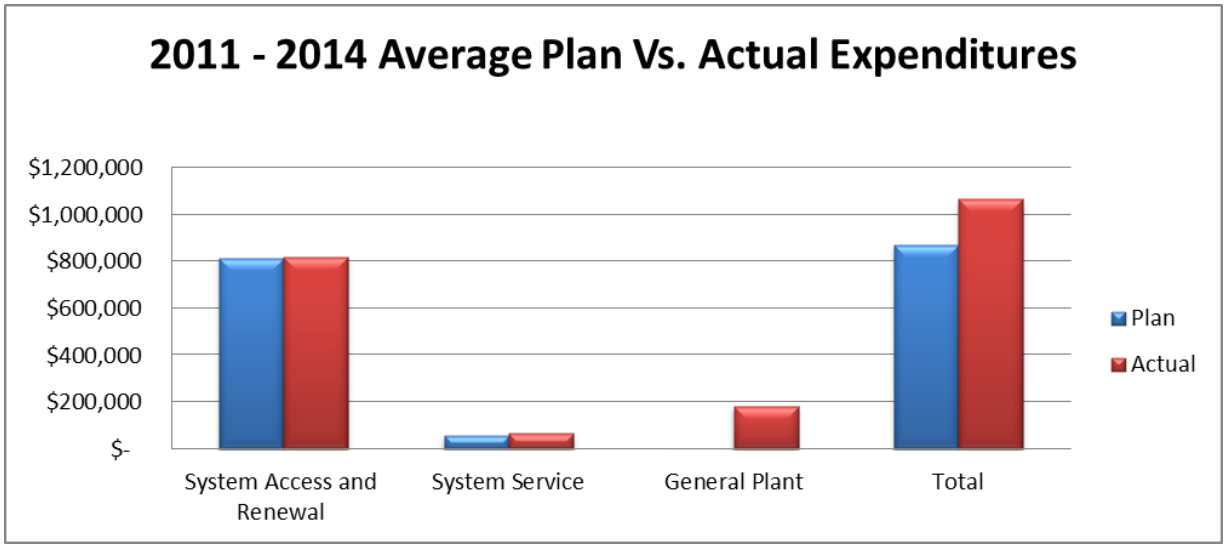


Figure 6 - 2011-2014 Average Plan Compared to Average Actual Expenditures

It should be noted that WDI's original Asset Management Plan was prepared up until the end of 2014 - the plan reported for 2015 was updated to reflect WDI's 2015 forecasted expenditure. Moving forward WDI has made adjustments to enhance the Asset Management planning process, using the guidelines and investment categories provided by the regulator for consistent reporting. WDI expects timing differences to occur, but the differences should easily be identifiable. WDI is committed to accurate reporting using the best information available at the present time.

3. [5.3] Asset Management Process

3.1. [5.3.1] Asset Management Process Overview

In developing and implementing the Asset Management Plan, WDI has pursued the best practices of the electricity distribution industry for many years and continues to work collaboratively with CHEC utilities for improved efficiencies and implementation of best practices. This has included adhering to the OEB's Distribution System Code ("DSC") that sets out both good utility practices, minimal performance standards for electricity distribution systems in Ontario, and minimal inspection requirements for distribution equipment. Consistent with best practices, over the years WDI has diligently maintained its equipment in safe and reliable working order and, only when economically justified, upgraded or replaced equipment.

WDI's mission is to provide our customers with excellent products and services in a competitive, safe, reliable and efficient manner, while always recognizing our community and environmental responsibilities. Additionally, WDI's customers have been surveyed over the past few years to ensure that the utility spends its resources consistent with its customers' needs and wishes while maintaining reliability. WDI's desired vision to focus on the needs and priorities of the community has been influenced in part by customer feedback and emphasize operational excellence.

The asset management process focuses on asset inspection and maintenance, capital expenditure planning and the required supporting information management systems and an asset condition assessment.

In developing this Asset Management Plan, the following factors were considered:

1) Available asset inventory and lead time for inventory purchases,
2) asset condition based on the current inspection process,
3) current capital expense programs, and
4) best practices of the electricity industry.

Observations for improvements in inspection, data collection, supporting systems and related asset management processes, were also made.

In order to leverage the efficiencies that are possible through emerging new technologies, WDI would need to investigate the benefits and determine if these would provide value to WDI's customers relative to the cost of the investment.

WDI feels that in order to achieve the foregoing desired distribution system, sufficient well-trained and well-equipped labour is also required.

Figure 7 details the basic process WDI is using now and moving forward with the asset management planning process.

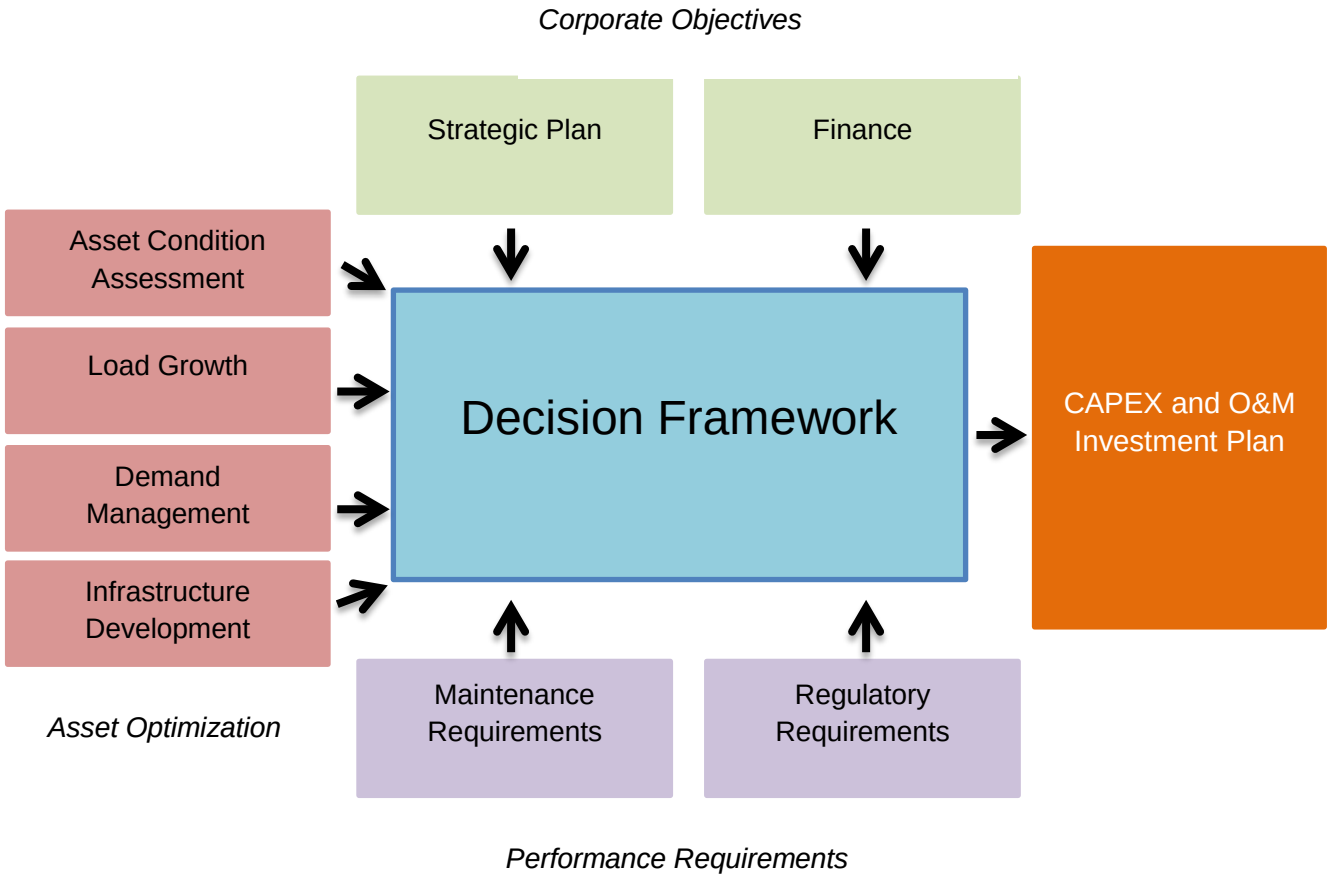


Figure 7 - Asset Management Process Overview

Asset Condition Assessment

- WDI performed an internal asset condition assessment. As identified, WDI Overhead Plant is old. Although, it is felt future risks could be minimized through timely system upgrades.
- WDI implemented a new GIS system to update the asset and improve the tracking of assets. This information is also coordinated with the financial system to ensure proper reporting requirements under IFRS.
- WDI does not currently apply a reliability-based 'worst performing feeder' in its asset management process. However, WDI does track outages per feeder for OEB reporting purposes and will look into an outage management system.

Load Growth

- The Town of Wasaga Beach has experienced significant growth over the last 20 years and as required, WDI has had to invest in capacity upgrades. WDI foresight and due diligence into the future needs has resulted in no capacity constraints throughout the distribution system. Although there are significant plans for major developments within sections of WDI's territory which, if developed simultaneously, could cause constraints.

Demand Management

- WDI evaluates the capacity to successfully operate the system with a single contingency anywhere on the system, with the installation of loop feeds, except where loop feeds are not practical.

Infrastructure Growth

- Though localized planning meetings, projects are identified and timelines are provided to WDI.

Maintenance

- Addresses public safety concerns.
- Addresses causes of significant outages and determine if capital investment is required.
- Maintaining existing reliability indicators
- The general inspection as required by the Distribution System Code also impacts the condition based maintenance activities and may change the preventative maintenance program. Also some potential capital projects may be initiated. Neither of these have been the case at this time in preparing this DSP.

Regulatory

- O.Reg. 22/04 requirements
- OEB Distribution System Code requirements and updates are taken into consideration during decision making.

Strategic/Finance Objectives

- WDI implemented a new GIS system to ensure proper tracking of equipment and structures and coordinates with the financial system to ensure proper reporting requirements under IFRS.
- WDI focuses on long term value and operational excellence throughout the planning process.
- Maintain consistent expenditures while offering dependable, safe, and reliable service to customers.
- WDI maintains capital budgets to ensure consistent spending unless circumstances dictate otherwise.
- WDI's cash reserves continue to be depleted as indicated in WDI's KPI 2014 scorecard. WDI aims to maintain steady long term investment strategies, which are consistent with prior spending and current customer input suggesting current level of spending is appropriate. WDI will ensure appropriate debt financing is required as needed to maintain long term positive financial health of the organization.

WDI has taken into consideration a variety of factors using the inputs above when assessing the need for investments and maintenance requirements. Potential projects can be initiated internally, externally by new customers or by other authorities. These tend to be market dependent within WDI's service territory as significant plans for expansion have been identified, but several projects are currently under planning stages, which has caused timing uncertainty. Additionally, these projects will have an impact on internal requirements on the distribution system which could have significant investment requirements.

WDI reviews condition assessments and potential impact on reliability in coordination with investment projects driven externally, and capital budget expenditures, prioritizing investments based on asset condition evaluations along with review of annual maintenance logs and DSC inspections to determine short and long term needs for asset replacements and renewals.

The potential projects are reviewed before including them in the approved capital plan. The first process is to determine if the project is necessary and what the scope and financial cost is, and the impact on WDI's deemed ROE and corporate objectives. WDI ensures investments in capital are fairly consistent year over year.

WDI reviews the scope and magnitude to determine if the project can logically and cost effectively be completed in a staged manner with multiple year projects. The major criteria for justification are public and staff safety.

WDI reviews and determines the reliability impact on investment and prioritizes the potential impact of each of the projects. WDI ensures that adequate capacity and flexibility exists in the distribution system to supply its' customers. Projects that have an impact on System Capacity are identified and prioritized based on the best available information provided to WDI. Some improvement is required in the system flexibility to be able to restore customers quickly.

Power quality has not been an issue to date for WDI.

3.2. [5.3.2] Overview of Assets Managed

WDI serves the Town of Wasaga Beach to its borders with electricity. As it is commonly known, Wasaga Beach is a tourist town, with an ever growing population. The present population, as provided by the Town, is over 18,000, with a total service area of 61 square kilometers. The utility presently serves approximately 13,000 customers and has more than 280 kilometers of conductor, both overhead and underground. The system also has more than 1,500 distribution transformers, and approximately 5,100 poles in service, fed from five owned, and one shared distribution stations.

The Town of Wasaga Beach was incorporated on May 16, 1976, and in the process grew from a population of about 600 to 5,000 overnight. In the process, WDI inherited the existing system from Ontario Hydro. This is reflected in the asset data presented in this report.

WDI installed a GIS system in 2010 which was used to gather most of the information for this study. It was however determined that additional information needs to be added to the GIS to make reporting more automated.

This section summarizes the results of the Asset Condition Assessment study completed in 2015, with the objective of establishing the health and condition of fixed assets currently in service on WDI's system.

The assets covered by the report include;

- Distribution Stations
- Station Feeders
- Distribution Transformers
- Poles
- Conductors
- Switches
- Meters
- General Plant

3.2.1. Distribution Stations

WDI owns and operates five municipal distribution stations, all fed from the 44kV system and stepped down to 8.32kV. These stations are located within town limits, as shown in Figure 8.

A brief description of each station follows.

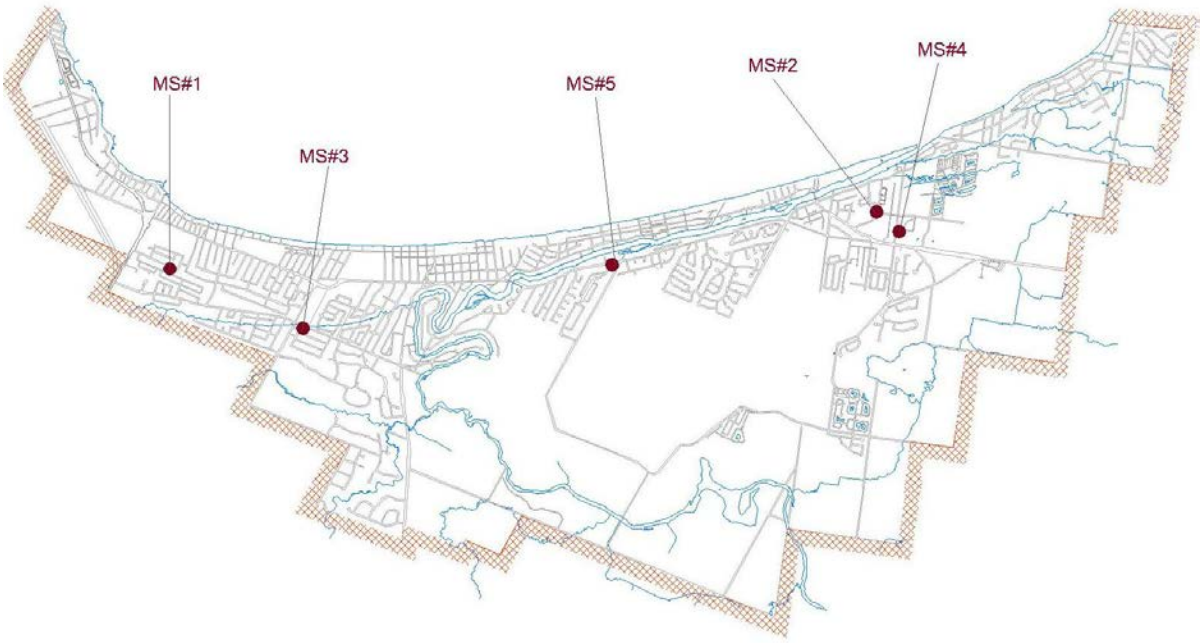


Figure 8 - Station Location

Station Overview

All five stations have a primary voltage of 44,000 volts and a secondary voltage of 8,320 volts and are connected to a Survalent SCADA system which is monitored at the Administration office.

MS#1 – Baysands Drive

Sub-station#1 primarily provides service to the west end of the town, presently covering everything from 57th Street west to 75th Street. The transformer is a 7.5MVA, and has three feeders, all of which are protected using three phase 600 Amp Nova reclosers. This station was put into service in 2008, to relieve load on the MS#3 station. It has mainly residential load.

MS#2 –Stonebridge Boulevard

Sub-station#2 is primary used to service a Commercial/Residential Development along Stonebridge Boulevard; however it also feeds a local residential area. The transformer is a

5MVA, and has two feeders, both of which are protected using three phase Nova reclosers, which are interchangeable with those from MS#1. This station was put into service in 2009.

MS#3 –Frank Street (Knox Road West)

Sub-station#3 provides service to the central and west end of town, and covers everything from Sunnidale Road west to 57th Street. The transformer is a 10MVA, and has four feeders, all of which are protected using three phase 400 Amp breakers. These breakers have been replaced in 2013 and 2014 along with protection control in 2012. This station was the first to be put into service by WDI in 1980 and has been a workhorse for the utility throughout the years, seeing winter loads in excess of 130% of rated capacity in the late 1980's. With the recent implementation of MS#1 this station now sees some relief, and can better be used as a backup to neighbouring stations. This station has a good mix of Commercial and Residential load.

MS#4 – Zoo Park Road

Sub-station#4 primarily provides service to the east end of town, covering everything from 15th and Mosley Street east and Blueberry Trails Road east to the town limits. The transformer is a 10/11.2MVA, with supplemental fans for cooling, it has four feeders all of which are protected by three phase, 600 Amp electronic reclosers. This station was put into service in 1989; however in 2009, there was a failure to the transformer, it was rebuilt in 2009.

MS#5 – Fernbrook Drive

Sub-station #5 primarily provides service to the central part of the town, from 15th and Mosley Street west to Sunnidale Road, and along River Road West, west of Blueberry Trails Road to and including Oxbow Park Drive. This transformer, like the MS#4 is a 10/11.2MVA, with supplemental fans added for additional cooling. It has four feeders, all of which are protected with three phase 600 Amp electronic reclosers. This station was put into service in 1995.

Spare Transformer

This transformer is a 5MVA and resides at our Service Center and was purchased in 2009. This transformer can be installed temporarily or permanently with minor modifications at any of the existing five stations.

Distribution Station Condition Assessment

WDI condition scores for station equipment are calculated using a determined weighting of variables. The scoring is based on the age, and loading requirements of the equipment as well as visual inspection results.

The assessment is based on a scoring from 0-100 ranging from Excellent to Critical. Table 7 identifies the ranges and defines the rating as it pertains to the condition of the assets.

Table 7- Asset Condition Scores

Rating	Range of Score	Description
Excellent	0-35	Asset is in no need to be replaced
Good	36-55	Asset might need to be re-assessed in 10 years
Fair	56-70	Asset should be re-assessed in 5 years
Poor	71-85	Asset should be replaced within 5 years
Critical	86-100	Asset should be replaced immediately

The three variables used for the assessment were each assigned a range of health scores and an overall weighting per health score. A maximum score achieved would indicate an immediate need for replacement. Table 8 identifies the weighted scaling.

Table 8 - Weighted Scaling

	Health Score	Weight	Max
Age	1->6	10	60
Loading	1->4	5	20
Visual	1->3	6.67	20

Age

WDI has currently five stations in service, with one spare transformer. Due to the significant investments made for the installation of the equipment; WDI has detailed information on the installation and prior replacement of existing equipment.

The Health Score assigned for the range of age for station equipment are identified in Table 9.

Table 9 - Age Scaling

Year	Age	Health Score
1965 and older	>50	6
1966 – 1975	40-49	5
1976 – 1985	30-39	4
1986 – 1995	20-29	3
1996 – 2005	10-19	2
2006 – 2015	0-9	1

Loading Requirements

WDI has invested in SCADA equipment which has been able to provide detailed loading information. Loading has been compared and assessed to determine the impact on the condition of station equipment.

The Health Score assigned for impact of load on the station equipment is identified in Table 10.

Table 10 - Load Scaling

Load	Health Score
>100 %	3
85 - 100 %	2
<85 %	1

Visual

WDI completes visual inspections as per the OEB's DSC requirements of its plant and performs predictive testing on certain assets where such testing is available, and replaces assets based on inspection and testing results as warranted. Additionally, infrared scanning and oil sampling are completed every two years for asset optimization.

The Health Score assigned for issues identified on inspection are identified in Table 11.

Table 11 - Load Scaling

Year	Health Score
>1 issues	3
1 issue	2
no issues	1

Asset Condition

The major assets reviewed in Distribution Stations include:

A. Station Transformers (Including Spare)
B. Feeder Protection

The overall health of WDI's MS station's equipment was computed using the variables as discussed. Table 12 summarizes the variables with the computed health scores to determine the overall rating of the station transformer.

Table 12 - Station Transformer Overall Health

STN	Age	Load	Visual	Score	Rating
MS#1	10	5	6.67	21.67	Excellent
MS#2	10	5	6.67	21.67	Excellent
MS#3	40	5	6.67	51.67	Good
MS#4	10	15	6.67	31.67	Excellent
MS#5	30	15	6.67	51.67	Good
Spare	10	5	6.67	21.67	Excellent

Overall WDI's station transformers are all in good to excellent condition. Therefore there shouldn't be a need to replace any of the transformers during the forecast period.

Table 13 shows the calculated overall health of WDIs feeder protection.

Table 13 - Feeder Overall Health

Feeder	Age	Load	Visual	Score	Rating
1F1	10	5	6.67	21.67	Excellent
1F2	10	5	6.67	21.67	Excellent
1F3	10	5	6.67	21.67	Excellent
2F1	10	5	6.67	21.67	Excellent
2F2	10	5	6.67	21.67	Excellent
3F1	10	5	6.67	21.67	Excellent
3F2	10	5	6.67	21.67	Excellent
3F3	10	5	6.67	21.67	Excellent
3F4	10	5	6.67	21.67	Excellent
4F1	30	5	6.67	41.67	Good
4F2	10	5	6.67	21.67	Excellent
4F3	10	5	6.67	21.67	Excellent
4F4	30	5	6.67	41.67	Good
5F1	30	5	6.67	41.67	Good
5F2	20	5	6.67	31.67	Excellent
5F3	30	5	6.67	41.67	Good
5F4	30	5	6.67	41.67	Good

With the recent replacement of the breakers at MS#3, as with the station transformers, WDI's Feeder protection is in good to excellent condition and therefore there shouldn't be a need to replace any of the equipment during the forecast period.

3.2.2. Station Feeders

As per the feeder protection at the distribution stations there are (17) seventeen feeders in total as well as (2) two shared feeders from Hydro One's Brock's Beach Distribution Station.

The number of customers per feeder can be seen in the Figure 9.

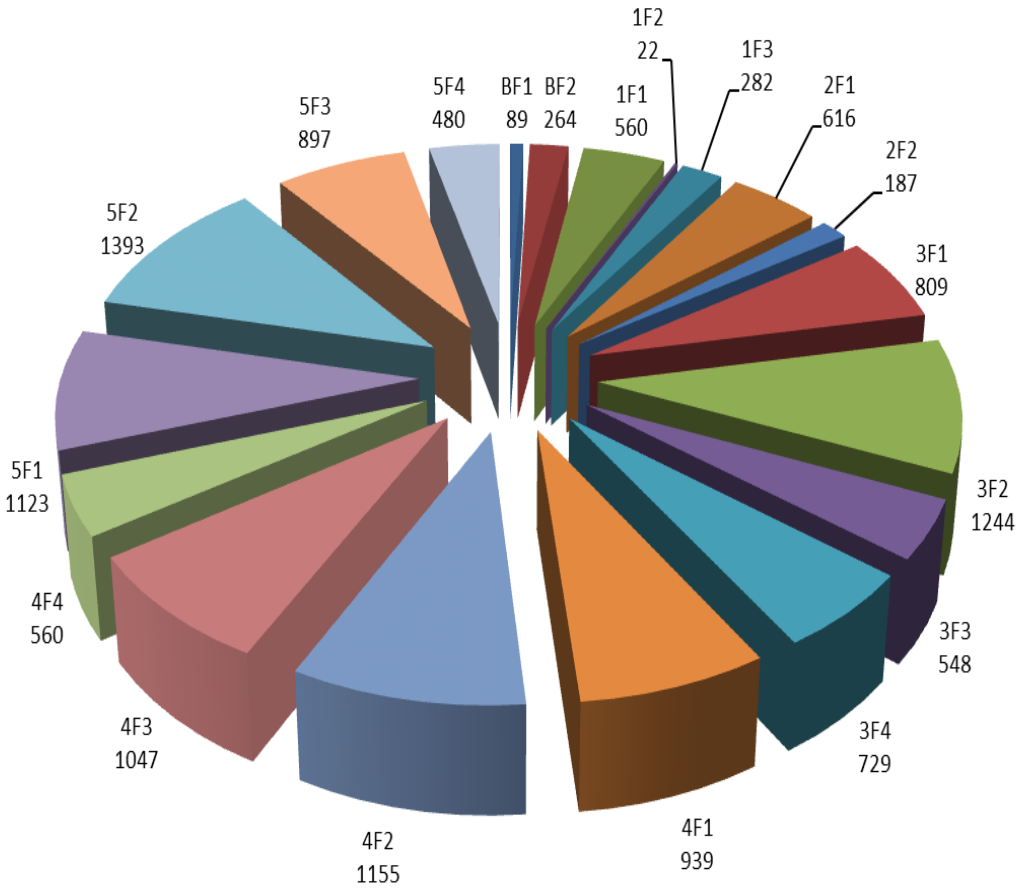


Figure 9 - Customers per Feeder

The above customer counts are used for reporting customer outages, and tracking potential problems. It was through such tracking that WDI discovered that there were two large outages that were a result of 15kV porcelain insulator failures.

3.2.3. Distribution Transformers

Based on the information retrieved from the GIS system, there are approximately 1,539 distribution transformers on WDI's distribution system. These are further categorized into three main types of transformers;

- Pole mounted transformers
- Pad mounted transformers
- Poletrans transformers

Aside from the different design and construction standards employed in their manufacture and installation, each type of transformer serves the same functions and the same asset management strategy can be employed in all of them.

Many utilities have, in the past, run the distribution transformers to failure. With the exception of rust proofing and painting of the tanks, replacing a damaged bushing or repairing a leaky gasket, very little preventative maintenance or testing was carried out.

WDI adopted a historical useful life for distribution transformer of 40 years. WDI has verified transformer TUL using age and loading criteria exported from WDI's GIS to determine asset condition; this calculated approach has been used to determine WDI's transformer overall health indices.

Distribution Transformer Condition Assessment

WDI condition assessment for Distribution Transformers is calculated using a determined weighting of two variables. The scoring is based on the age, and loading.

The assessment is based on a scoring from 0-100 ranging from Excellent to Critical. Table 14 identifies the ranges and defines the rating as it pertains to the condition of the assets.

Table 14 - Asset Condition Scores

Rating	Range of Score	Description
Excellent	0-35	Asset is in no need to be replaced
Good	36-55	Asset might need to be re-assessed in 10 years
Fair	56-70	Asset should be re-assessed in 5 years
Poor	71-85	Asset should be replaced within 5 years
Critical	86-100	Asset should be replaced immediately

The two variables used for the assessment were each assigned a range of health scores and an overall weighting per health score. A maximum score achieved would indicate an immediate need for replacement. Table 15 identifies the weighted scaling.

Table 15 - Weighted Scaling

	Health Score	Weight	Max
Age	1->6	11.67	70
Loading	1->3	10.00	30

Age

WDI has currently 1,539 distribution transformers in service that are being tracked through WDI's GIS system.

Figure 10 breaks down the type of transformer by age. According to WDI's asset registry it has been identified that most of WDI's older transformers are pole mounted.

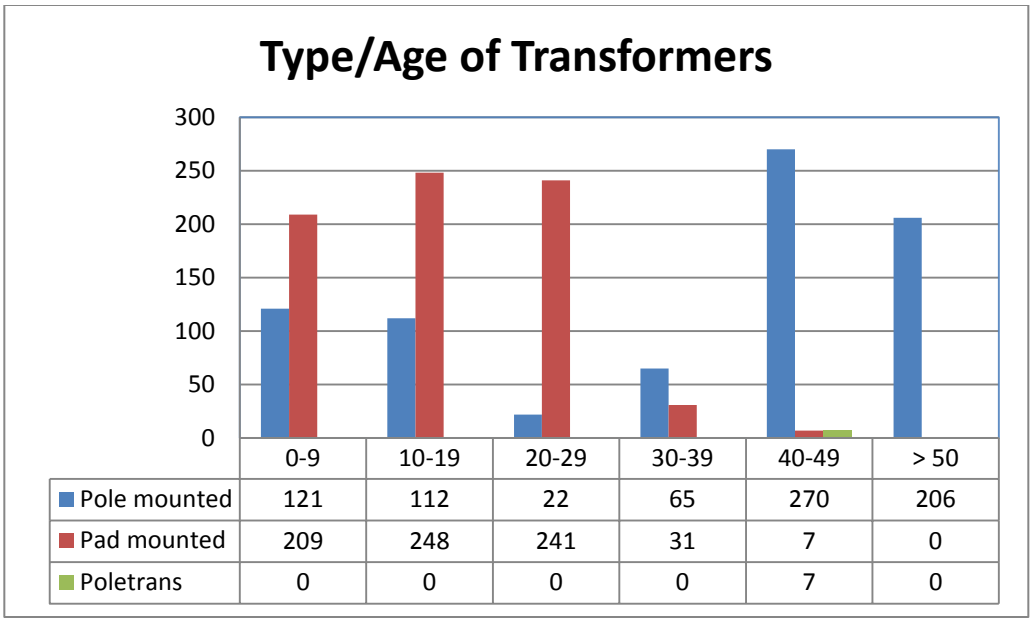


Figure 10 - Type/Age of Transformer Profile

The age is consistent with the demographics of the WDI's pole population, showing the majority of the overhead transformers to be more than forty years old. The majority of WDI's newer transformers are Pad mounted which is consistent with the significant growth and investment into underground plant within WDI's service territory during the last 25 years.

PoleTrans are transformers contained at the base of a streetlight pole and were used for improved streetscape. They are however difficult to maintain and can be a safety hazard. With this in mind, WDI is in the process of removing these units and replacing them with Pad mounted transformers.

The Health Score assigned for the range of age for distribution are identified in Table 16. This is consistent and reflective with the typical useful life and maximum useful life as assigned by the Kinectrics study on asset depreciation.

Table 16 - Age Scaling

Year	Age	Health Score
1965 and older	>50	6
1966 - 1975	40-49	5
1976 - 1985	30-39	4
1986 - 1995	20-29	3
1996 - 2005	10-19	2
2006 - 2015	0-9	1

Loading Requirements

WDI uses monthly reporting through the GIS system and CIS system to determine the load impact on distribution transformers.

WDI is primarily a summer peaking utility and it is felt that the loading impacts the overall health of the distribution transformers. The reports are run annually to identify the over loaded transformers. The over loaded transformers are then investigated further to determine if immediate attention is required. Figure 11 further breaks down the overloaded transformers.

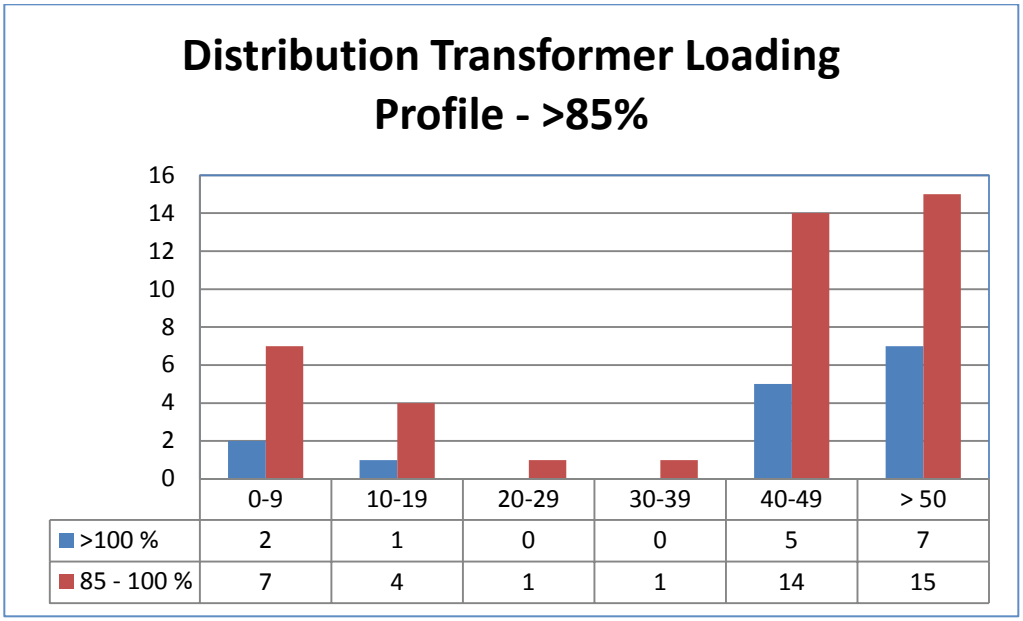


Figure 11 - Transformer Load Profile

The Health Score assigned for impact of load on the station equipment is identified in Table 17.

Table 17 - Load Scaling

	0-9	10-19	20-29	30-39	40-49	> 50	Health Score
>100 %	2	1	0	0	5	7	3
85 - 100 %	7	4	1	1	14	15	2
< 85 %	321	355	262	95	265	184	1

Visual

WDI completes visual inspections as per the OEB's DSC requirements of its plant and performs predictive testing on certain assets where such testing is available, and replaces assets based on inspection and testing results as warranted. Additionally, infrared scanning is completed every two years for asset optimization. For the purpose of the condition assessment visual inspections were not considered.

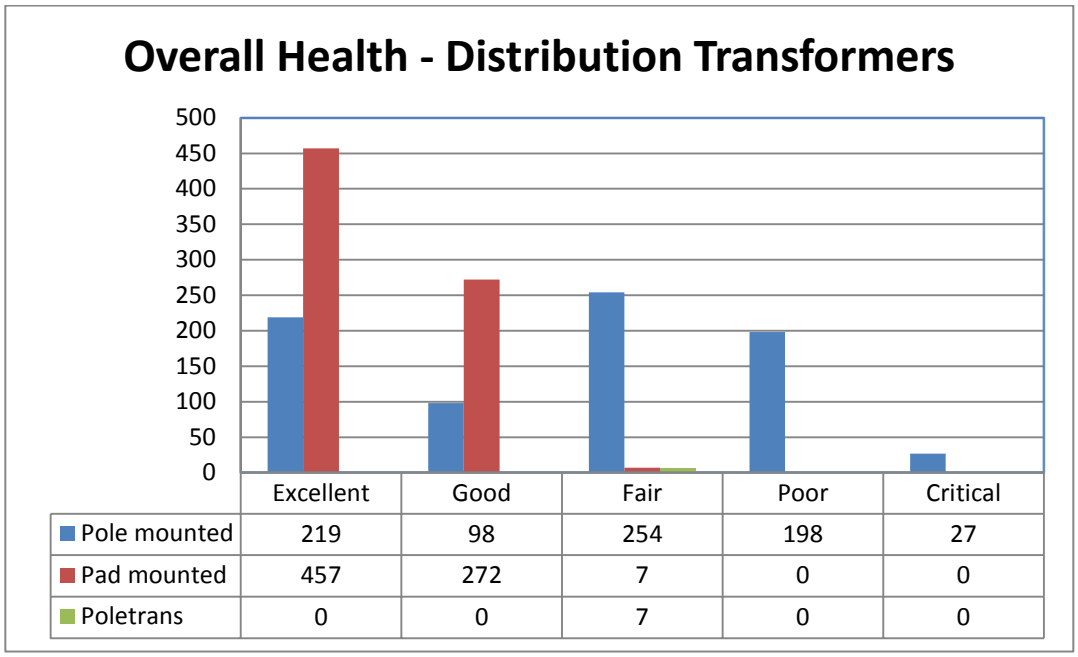
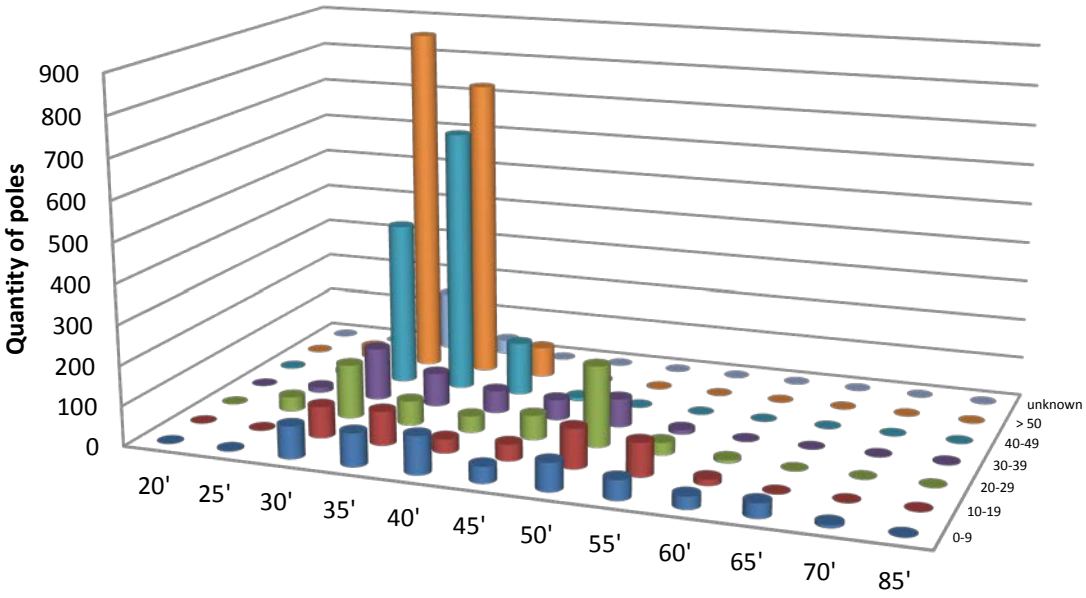


Figure 12 - Transformer Overall Health

Figure 12 identifies the calculated condition of the transformers as determined through WDI's assessment. For the purpose of the forecast period WDI will be addressing the replacement of 225 Pole mounted distribution transformers determined to be in poor and critical condition. As identified through the condition of assessment; all critically identified distribution transformers are at minimum 100% overloaded and past the TUL (40 years) or in excess of 50 years old and at a minimum of 85% of maximum load requirements.

3.2.4. Poles

Based on the information retrieved from the GIS system, there are approximately 5,100 poles employed on WDI's distribution system. The majority of these poles are wood with the exception of a few steel poles which are newer and were not considered as part of this study.



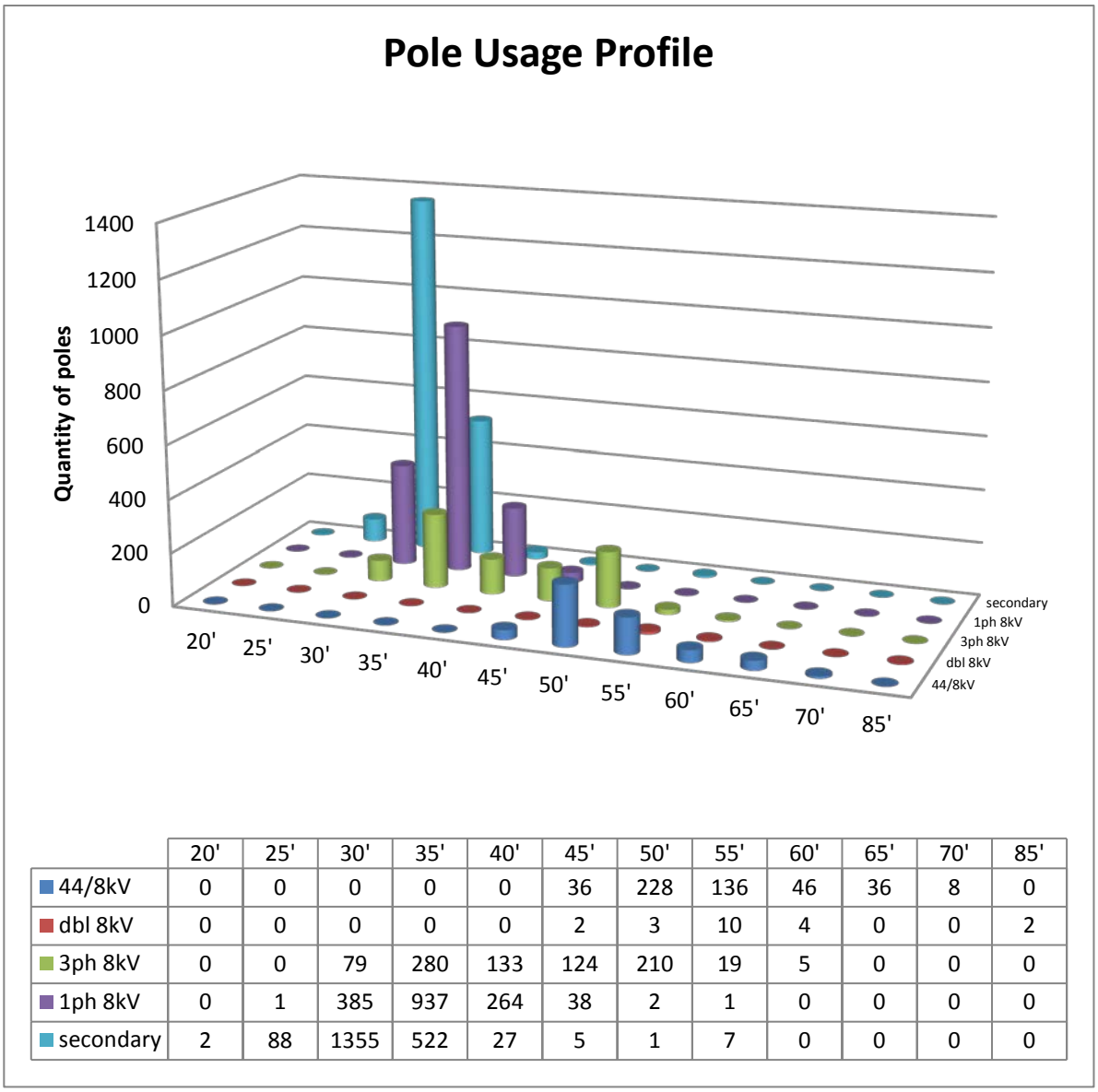
	20'	25'	30'	35'	40'	45'	50'	55'	60'	65'	70'	85'
0-9	0	2	81	83	95	41	70	49	31	36	7	0
10-19	0	1	79	85	35	41	99	84	15	0	0	0
20-29	0	36	136	61	41	61	202	31	8	0	0	0
30-39	0	13	132	84	56	51	71	11	1	0	1	2
40-49	2	9	412	663	134	8	1	0	0	0	0	0
> 50	1	30	882	758	77	4	1	0	0	0	0	0
unknown	0	0	149	36	0	0	0	0	0	0	0	0

Figure 13- Pole age/height demographic

Figure 13 information displays the age and height profile of the poles in WDI's distribution system. It is assumed that all the unknown poles were likely older than 50 years and as such were categorized as the same. As illustrated, WDI has approximately 3,167 poles that have been in service for more than 40 years, which equated to 62.1% of its total number of poles. Forty years is the Typical Useful Life ("TUL") of Fully Dressed Wood Poles as per the Kinectrics' study.

It is further evident that the pole age profile highlights some trends in the pole population:

- The older poles are shorter – this also reflects the fact that a number of these were inherited from Ontario Hydro.
- More recent construction standards use taller poles – this is consistent with the fact that much of the new construction has focused on building or re-building main 3-phase feeder lines.



	20'	25'	30'	35'	40'	45'	50'	55'	60'	65'	70'	85'
44/8kV	0	0	0	0	0	36	228	136	46	36	8	0
dbl 8kV	0	0	0	0	0	2	3	10	4	0	0	2
3ph 8kV	0	0	79	280	133	124	210	19	5	0	0	0
1ph 8kV	0	1	385	937	264	38	2	1	0	0	0	0
secondary	2	88	1355	522	27	5	1	7	0	0	0	0

Figure 14 - Pole Usage Profile

Figure 14's information was used to show the usage of the poles, which is an indication of the type of stress on the pole. A pole with 44kV and 3 phase 8kV would have significantly more

stress then a pole with only secondary cables. It is also an indication that the shorter poles are primarily used for secondary and service poles, whereas the taller poles are used for the 3 phase 8kV and 44kV circuits.

The information below has taken into account all the data above and calculated the probability of the numbers of poles that will need to be replaced. It can be further assumed that as the majority of poles are over forty years old; this is where replacement efforts will need to be concentrated.

Distribution Poles Condition Assessment

WDI's condition assessment for Distribution Poles is calculated using a determined weighting of two variables. The scoring is based on the age, and stress on the poles.

The assessment is based on a scoring from 0-100 ranging from Excellent to Critical. Table18 identifies the ranges and defines the rating as it pertains to the condition of the assets.

Table 18 - Asset Condition Score

Rating	Range of Score	Description
Excellent	0-35	Asset is in no need to be replaced
Good	36-55	Asset might need to be re-assessed in 10 years
Fair	56-70	Asset should be re-assessed in 5 years
Poor	71-85	Asset should be replaced within 5 years
Critical	86-100	Asset should be replaced immediately

The two variables used for the assessment were each assigned a range of health scores and an overall weighting per health score. A maximum score achieved would indicate an immediate need for replacement. Table 19 identifies the weighted scaling.

Table 19 - Weighted Scaling

	Health Score	Weight	Max
Age	1->6	11.67	70
Stress	1->6	5.00	30

Age

WDI has currently 5,100 poles in service that is being tracked through WDI's GIS system. 62% of all poles have exceeded their typical useful life. WDI assigned a health score based on age with poles nearing the maximum useful life being assigned a score of 6. The scores assigned for the age of the pole are provided in table 20.

Table 20 - Age Scaling

Year	Age	Health Score
1965 and older	>50	6
1966 - 1975	40-49	5
1976 - 1985	30-39	4
1986 - 1995	20-29	3
1996 - 2005	10-19	2
2006 - 2015	0-9	1

Pole Stress

WDI identified the stress the conductors exert on the pole as a factor to consider when assessing the condition of the pole. The more stress exerted on the pole, the more impact this has on the condition of the pole. Table 21 identifies the weighted impact that WDI feels reflects the impact of stress on the asset's condition

Table 21 - Stress Scaling

Stress	Health Score
44kV & 2cct 8kV	5
44kV & 1cct 8kV	4
3ph - 8kV	3
1ph - 8kV	2
* Secondary	1

WDI completes visual inspections as per the OEB's DSC requirements of its plant and performs predictive testing on certain assets where such testing is available, and replaces assets based on inspection and testing results as warranted. For the purpose of the condition assessment visual inspections were not considered.

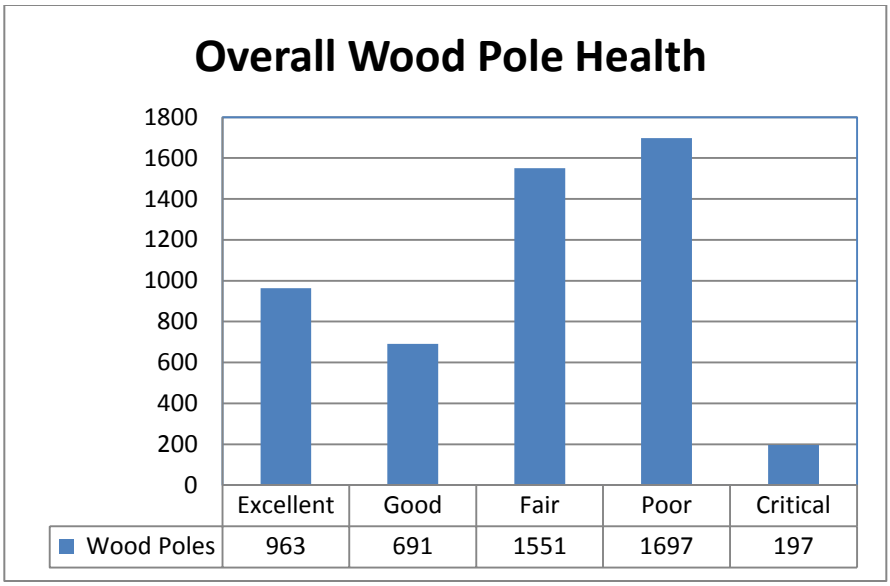


Figure 15 - Overall Wood Pole Health

As illustrated in Figure 15, WDI determined that 1,894 poles are currently identified as being in Poor to Critical condition. Significant replacement of these poles will be required during the forecast period.

Therefore, WDI has created a pole replacement program that will focus on the poles determined to be the most critical. With this in mind, WDI will be taking a more aggressive approach to testing poles and maintaining overhead infrastructure. WDI identified 1,894 poles that were deemed to be in poor to critical condition and WDI feels that they should be replaced within five years. As this is a large number of poles that would result in a significant investment, WDI's Pole Replacement Program helps to prioritize the replacement of the poles. In order to avoid lumpy investments and significant rate impacts, WDI has proposed a consistent year over year investment to address to most critical areas realizing that it would be impractical and fiscally irresponsible to attempt to complete the replacement of all of the poles in the forecast period. Poles that are in Fair to Poor condition would be replaced in subsequent forecast periods.

Consequently, the pole testing program, as identified in WDI's asset condition assessment will focus on these assets determined to be poor to critical with critically identified assets replacements first.

3.2.5. Conductors

Based on the information retrieved from the GIS system, there is over 282 km of conductors throughout the distribution system in WDI's service territory. Table 22 indicates the split of the length of line between overhead and underground conductors.

Table 22 - Conductor Overview

2014	O/H	U/G	Total
3 phase	91.1	40.2	131.3
1 phase	68.6	83.05	151.65
Total	159.7	123.25	282.95

Conductor age and size was reviewed, however it was found that it was harder to determine the age of the older smaller conductor, so an estimate was used. Going forward WDI has added this as an item to be included into their GIS system as well as more detailed secondary bus locations.

Table 23 - Overhead Single Phase Conductor Summary

Conductor Length (km)									
Age/Conductor	1 Phase (by Size)								
	#6 Cu	#4 ACSR	#4 Cu	#2 ACSR	1/0 ACSR	2/0 ACSR	3/0 ACSR	336 Al	1 Phase TOTAL
>50	4	2.2	1.7	17.1	0.1	0	0.1	0	25.2
40-49	2.4	3.4	1.1	17.6	4.6	1.2	0.3	0	30.6
30-39	0	0.2	0	1.4	0.8	0	0	2.5	4.9
20-29	0.2	0.1	0	2	0	0	0.3	2.5	5.1
10-19	0	0	0	0.6	0.2	0	0.2	0	1
0-9	0	0.1	0	1	0.7	0	0	0	1.8
TOTAL	6.6	6	2.8	39.7	6.4	1.2	0.9	5	68.6

Table 23 identifies the type and age of conductor. WDI's overhead plant is old with over 65% of single phase overhead conductors being more than forty years old. WDI investment in overhead plant in recent years has been reduced as many of the newer single phase run-offs are fed from underground cables.

Table 24 - Overhead Three Phase Conductor Summary

Conductor Length (km)						
Age/Conductor	3 Phase (by Size)					
	#2 ACSR	1/0 ACSR	3/0 ACSR	* 336 AI	556 AI	3 Phase TOTAL
>50	0	0	13.2	1	0.3	14.5
40-49	0.3	0	4.3	0.4	0.2	5.2
30-39	0.5	0	1.1	15.5	1.2	18.3
20-29	0.3	0.9	0.8	15.5	12.5	30
10-19	0	0.1	0.4	6.5	7	14
0-9	0	0	0.1	4.40	5.4	9.9
TOTAL	1.1	1	19.9	43.3	26.6	91.9

*includes 44kV conductors

Table 24 details the overhead three phase conductors and is a good indication of the changes in load growth throughout WDI's service territory. Many of the smaller conductors are from an older period, while the larger conductors have been installed over the last thirty years as the distribution system has been expanded and customer counts have increased. WDI continues to construct overhead three phase lines with 556 AL. to help with increase loading and reduce voltage drops.

WDI intends to replace aging overhead conductors when the poles are replaced as conditions permit.

Table 25 - Underground Conductor Summary

Conductor Length (km)									
Age/Conductor	1 Phase (by Size)			3 Phase (by Size)					All
	1/0 AL XLPE	2/0 AL XLPE	1 Phase TOTAL	2/0 AL XLPE	350 MCM CU	500 MCM CU	750 MCM AL	3 Phase TOTAL	GRAND TOTAL
>50	0	0.5	**0.5**	0.1	0	0	0	**0.1**	**0.6**
40-49	0.1	0.7	**0.8**	0.1	0	0	0	**0.1**	**0.9**
30-39	0.24	3.2	**3.44**	1.6	0	0.1	0	**1.7**	**5.14**
20-29	0	25.9	**25.9**	12.3	1.4	0.5	0.1	**14.3**	**40.2**
10-19	0	30.7	**30.7**	8	0	0.4	0	**8.4**	**39.1**
0-9	0.21	21.5	**21.71**	11.8	1.2	2.6	0	**15.6**	**37.31**
TOTAL	**0.55**	**82.5**	**83.05**	**33.9**	**2.6**	**3.6**	**0.1**	**40.2**	**123.25**

Table 25 summarizes the underground conductors, both single phase and three phase. WDI primarily uses 2/0 TR-XLPE AL. direct buried in underground developments, both in single phase and three phase cases. It is not common practice to run larger conductor underground express feeders; however in some instances the aesthetics and demographics take priority over practicality. WDI has no plans to address the replacement of Underground Conductor within the forecast period but is aware that as the system ages WDI will need to focus efforts on replacement of their Underground conductor to maintain reliability and reduce the impact on rate payers in the near future.

3.2.6. Switches

Based on the information retrieved from the GIS system, there are six (6) gang-operated 44kV Load-break switches, and eighteen (18x3) 44kV single blade switches. There are also five (5) station switches and several privately owned switches.. WDI is planning to collect and store information regarding its 8kV switches in the GIS to complement existing asset information. WDI has replaced many of its old in-line porcelain switches with more reliable polymer switches, and continues to do so.

Visual inspections are carried out as per the Ontario Energy Board's DSC requirements, as well infrared scanning is completed every two years.

3.2.7. Insulators

WDI has a mix of porcelain and polymer insulators in service. Through trouble reporting WDI has determined that the 15kV porcelain insulators have been failing and are required to be replaced throughout the forecast period under their system renewal investment. This project is not a material investment for WDI.

3.2.8. Metering

WDI currently bills customers monthly and has deployed over 13,000 Smart Meters within WDI's service territory. WDI has also converted all of their General Service > 50 KW customers to interval meters as per Measurement Canada standards. Additionally, WDI receives its power from four HONI points monitored through 4 PMEs. All maintenance activities related to meters follow the requirements of Measurement Canada guidelines. WDI has prepared a budget that should complement its load growth over the next five years. WDI has scheduled for the replacement of Meters that cannot be encrypted to ensure WDI is at the forefront by using meters with encrypted data so as to protect itself and its customers from cyber-attacks and to reduce its level of cyber vulnerability.

3.2.9. General Plant

WDI owns and operates an administrative and operations building, along with the land the buildings occupy. Recent renovations have resulted in no large material expenditures over the forecast period.

WDI has a GIS and a SCADA System (WDI is currently in the initial stages of evaluating the cost/benefit of an integrated OMS).

3.3. [5.3.3] Asset Lifecycle Optimization Policies and Practices

WDI has no formal policies on asset lifecycle optimization. However, WDI relies upon an informal yet practical and hands-on approach which is based on the information provided in the Kinectrics Inc. Asset Depreciation Study for the OEB published July 8th, 2010 and the practical data stored in the corporate GIS system. WDI plans to create written practices and policies as appropriate so that the organization provides clear and objective direction to staff. This will be an important part of succession planning as retirements and personnel changes occur as part of the ongoing activities of the organization.

The historical practice has been to run assets to failure however WDI is at a point of transitioning from this to more proactive reliability based maintenance and replacement strategy that would involve optimal investments at critical points to achieve efficiency, reliability and resilience.

Load interrupter switches are maintained to the manufacturer's recommendations because these devices need to be operable to reconfigure the power system when power failures occur to restore power to as many customers as possible.

WDI carries out the following routine maintenance activities:

Predictive Maintenance:

- Oil sampling on distribution station transformers is completed every two years by a third party.
- Infrared testing on overhead equipment is completed every two years by a third party.
- Pole replacement program,
- Distribution transformer replacement program, and
- Porcelain insulator replacement program.

WDI plans to incorporate a more aggressive pole maintenance program which includes doing penetration testing to complement pole replacement strategies over the forecast period.

Preventative Maintenance:

- Routine inspections as required by the DSC.
- Regular vegetation management based on a regular cyclical geographically based schedule as well as input from the routine inspections.
- Load interrupter switch maintenance.
- Switchgear inspection and maintenance
- Poletrans replacement Program

Condition based Maintenance:

- Repair of all deficiencies noted in the routine inspections and any items discovered when operating the system.
- Monitoring and reviewing trouble reporting to determine where maintenance is required.

WDI maintains an outage reporting database which is used to collate outages by station, feeders, and transformers. This data is used to assist in determining the reliability indices and to identify issues arising within WDI's service territory to assist in prioritization of capital expenditures.

Risk is managed by being aware of the failures that occur on the power system and being aware of any safety consequences that are likely to accompany the failure. For example, when a porcelain insulator fails this typically results in a larger outage which could also impact public safety and could cause an increase in outage repair costs at premium rates. The proactive replacement of these insulators will help to mitigate this risk and also to ensure public and worker safety. As indicated, replacement will begin closest to the station where the largest number of customers could be affected.

WDI's replacement programs over the forecast period are scheduled to take place at a steady pace, with best estimates, beginning with assets assessed to be in critical condition. With WDI having an older system WDI needs to be proactive in smoothing out the impact to ratepayers and to reduce the risk of reduced reliability.

Capital expenditure selection is on the basis of the following in priority order:

- The safety impact on the public and staff,
- planned growth/infrastructure,
- regulatory requirement or obligation,
- reliability of outages versus restoration capability, power quality, and;
- third party requirements.

Timing and pace is determined by:

- Resource capability to complete the work,
- the financial ability to pay for the work, and;
- completing the expenditures that provide the greatest benefit.

WDI's main distribution assets are stations, poles, overhead wire, transformers, switches and insulators as well as underground primary cable, transformers and secondary cable.

All the distribution plant is inspected, at a minimum, on a three year cycle in accordance with the Distribution System Code requirements.

Overhead transformers are inspected visually as part of the Distribution System Code requirements and identified problems are corrected. A total of 476, which is approximately 60% of total overhead transformers have exceeded their typical useful life of 40 years old with approximately 206 transformers nearing their maximum useful life ("MUL") of 60 years. As determined by WDI the majority of these transformers are in poor to critical condition and a replacement program has been identified over the forecast period.

Underground transformers are inspected per the Distribution System Code requirements. WDI underground transformers are all relatively new and any identified issues at time of inspection are corrected.

WDI has identified over 3,167 Poles that are more than 40 years old (over 60% of total quantity) consequently, these assets are at, or nearing the end of their MUL. Therefore, WDI has created a pole replacement program that will focus on the poles determined to be the most critical. With this in mind, WDI will be taking a more aggressive and proactive approach to pole analysis and replacement prioritization. WDI identified 1,894 poles that were deemed to be in poor to critical condition and WDI feels that they should be replaced within five years. Recognizing that replacing all of the poles in the forecast period would be fiscally irresponsible, WDI has prioritized the pole replacements of approximately 170 poles per year as follows:

- By voltage class
- Whether carrying equipment
- Location – major roadways, intersections, building, and public areas
- Effect on system – customer affected, length of outage, spares in system
- Any other details regarding condition – insect infestation, wood rot, penetration testing, pole fire, vehicle contact etc.

Some classification will naturally occur based on line rebuild projects scheduled.

Both the primary and secondary overhead conductors are maintained minimally on a planned basis. There is a visual inspection as part of the Distribution System Code inspections. Situations requiring repair are noted and follow-up is initiated and carried out. WDI undertakes an infrared scan of connections to identify if the connections are overheating.

WDI will take into consideration conductor replacement or upgrading at the same time pole replacement planning strategies are considered to capitalize on efficient use of line crews.

Vegetation is managed to ensure there is adequate clearance between the lines and any trees or other vegetation that could interfere with the operation of the power system.

Underground primary cables have not been failing in WDI's system. Cable terminations are inspected visually in pad mounted switching units and in transformers. Unless problems are discovered they are run to failure.

Underground secondary cable terminations are visually inspected at the transformer when the transformer inspection is carried out.

Overhead switches are inspected per the Distribution System Code requirements and are maintained per the manufacturer's recommendations. WDI has recently replaced many porcelain switches with polymer switches.

Overhead Switch/fuses (cutouts) are inspected per the Distribution System Code requirements and are inspected when they are operated manually by a crew or after they operate automatically when the fuse protection operates. Damaged cutouts are replaced.

The majority of WDI's investments over the forecast period include growth driven projects, which take priority, when identified and proposed. WDI's replacement strategy of overhead plant that was identified in the WDI's condition assessment will be prioritized on a needs based analysis and will be discussed in further detail within this plan. Additionally, WDI will use third party contractors as required while being financially responsible.

4. [5.4] Capital Expenditure Plan

4.1. [5.4.1] Summary

WDI's customer base has shown recent growth. According to the Town of Wasaga Beach Planning Department there are approximately 4,000 planned lots ready for development, including a large commercial development project planned for the west end of town. WDI has no control over these developments and for forecasting these investments are made using the best available information at that time.

Although WDI has had significant growth over the last couple of decades WDI's existing Overhead Plant is old and it has been identified that WDI will need to start replacing these assets identified as either being in poor to critical condition within the forecast period. System renewal investments include the significant replacement of poles, transformers, and overhead conductors.

The current net capital expenditures including contributed capital over the forecast period are shown in Table 26.

Table 26 - Forecasted Capital Expenditures

Investment Category	2016	2017	2018	2019	2020
System Access	588,750	463,200	211,464	515,693	520,007
System Renewal	650,000	743,600	903,432	615,501	627,811
System Service	10,000	10,000	20,000	10,000	10,000
General Plant	30,000	10,000	10,000	-	-
Total Capital Spending	1,278,750	1,226,800	1,144,896	1,141,194	1,157,818

WDI's capital program was developed by outputs of the Asset Management Plan and the Capital Planning process. The activities by investment category and major projects are summarized below.

System Access Projects:

- Residential and Commercial developments. WDI expects customer growth of approximately 185 customers per year which equates to approximately 1.5% customer growth rate.
- Sunnidale Road Pole Line – WDI needs to extend/construct the pole line to enable the connection of a large residential community. This pole line will be approximately 2.5km in length. This project is does not receive contributed capital.
- New and Upgraded Services - To accommodate new development and infill projects
- Meters – replacement of 1st generation Smart Meters due to encryption concern and to accommodate growth requirements.
- River Road West Pole Line Expansion – road widening project continued from a 2014-2015 multiyear project. This is a municipally driven project for which WDI does not have control over.

System Renewal Projects:

The projects identified below were all driven because of the asset condition assessment results.

- Overhead transformer replacement program – mostly driven by the age and load impact of the asset. Total forecast includes the replacement of 225 transformers over the forecast period.
- Pole replacement program – mostly driven by age of the asset and stress on of the asset. WDI identified 1,900 poles to be replaced of which 725 poles are forecasted to be replaced over the forecast period.
- Conductor replacement – driven by pole replacement in conjunction with the age of the asset.
- Porcelain Insulator Replacement Program
- Mosley St. Pole Line – Large identifiable replacement of pole and conductors, driven by the age/condition of the asset.

System Service Projects:

- There are no “material” projects in this category. WDI plans to replace their remaining porcelain insulators over the 2015, 2016, 2017 time periods. WDI intends to look at updating their GIS system and looking into an Outage Management System.

General Plant Projects:

- There are no “material” investment projects in the category projected during the forecast period.

The capital projects for each category for the 2015 to 2020 period are in section 4.4[5.4.4]

WDI coordinates with the IESO and HONI. The IESO regional planning study is currently being finalized with input from local utilities. Currently there have been no projects identified that will require significant investments by WDI.

Additionally, WDI’s completed customer surveys and these indicated positive responses about customer satisfaction with WDI being identified as a good corporate citizen, the survey also indicated that the customers have a high sensitivity to the retail cost of power. WDI has used this input to be frugal with capital expenditures and has spread work to be done over a time period to minimize the customer bill impact.

WDI expects its load and its customer base to be increase approximately 2% per year over the next five years. It does not anticipate any material requirements to make expenditures for REG or Smart Grid projects at this time.

4.2. [5.4.2] Capital Planning Process Overview

In managing its distribution system assets, WDI’s main objective is to optimize performance of the assets at a reasonable cost with due regard for system reliability, safety, and customer service expectations. WDI is committed to providing our customers with an economical, safe,

reliable supply of electricity and helping the Town of Wasaga Beach become one of the most energy efficient and cost efficient communities in Ontario.

Capital Planning:

WDI‘s capital plan has been segregated into the following categories:

- System Access (Developer-Driven, growth related)
- System Renewal
- System Service
- General Plant (Other Capital Expenditures)

System Access investments are modifications (including asset relocation) to a distributor’s distribution system. These requirements are generally Developer or Municipally-driven capital expenditures and are directly related to growth and are partially funded through Capital Contributions.

System Renewal investments involve replacing and/or refurbishing system assets to extend the original service life of the assets. Historically, WDI has been able to replace aging infrastructure to accommodate growth. Planning has been shifting to accommodate WDI’s aging system.

System Service investments are modifications to a distributor’s distribution system. WDI’s main investment into System Service has been investing in a SCADA system and the conversion to Smart Meters.

General Plant investments are modifications, replacements, or additions to a distributor’s assets that are not part of its distribution system. Historically, this includes building upgrades/land purchases.

WDI’s Capital Plan process is based on the following inputs and works in conjunction with the asset management process:

- Customer/Third Party Demand:

These are projects that WDI undertakes to meet customer obligations in accordance with the OEB’s DSC and WDI’s Conditions of Service. Activities include connecting new residential and general service customers, constructing distribution plant to connect new subdivisions and relocating system plant equipment for roadway reconstruction work. WDI contributes to the cost of these projects using the economic evaluation methodology in accordance with the DSC and the provisions of its Conditions of Service for system expansions to determine the level of capital contribution.

- Infrastructure Renewal/Replacement:

Replacement projects are identified through the asset condition assessment and the projects are completed when it has been determined that the assets have reached their end of useful life. WDI completes visual inspections of its plant and performs predictive testing on certain assets where such testing is available, and replaces assets based on inspection and testing results as warranted. In some cases the projects involve spot replacement of assets; in other cases, the

projects involve complete asset replacement within a geographic area. New assets require less maintenance, deliver better reliability and reduce safety risks to the general public.

- Capacity:

Load growth caused by new customer connections and increased demand of existing customers over time can result in a need for capacity improvements on the system. Projects can take the form of new or upgraded feeders and transformers. These projects are not customer-specific, but rather, they benefit many customers.

- Regulatory Requirements:

These projects are capital investments which are being driven by regulatory requirements. These requirements may include, among others, directions from the OEB, the IESO and the Ministry of Energy & Infrastructure or the Ministry of Environment. In 2006, The Government of Ontario established targets for the installation of 800,000 smart electricity meters by December 31, 2008 and installation of Smart Meters for all Ontario customers by December 31, 2011.

- Substation

Substation investments are undertaken to improve or maintain reliability to large numbers of customers and to maintain security and safety at the substations. Substations are also investments which increase capacity in growth areas.

- Customer Connections and Metering:

Capital expenditures include meter installations, meter upgrades, and the capital components of wholesale and retail meter verification activities.

- General Plant Capital Projects:

Capital Expenditures include building, land and software upgrades.

Capitalization Policy:

WDI follows IFRS, in particular the IAS 16, Property, Plant and Equipment as well as the guidelines as set out in the OEB Accounting Procedure Handbook.

WDI does not capitalize interest on funds used during construction as capital projects are constructed. In addition, WDI does not capitalize, through internal cost allocations, any indirect administrative support costs such as Finance or Facilities.

WDI's forecasted plan entails capital investments driven by growth and a replacement strategy that is mostly driven by the age of the plant. As shown in section 4.1 [5.4.1] there are only a few proposed capital projects. These specific projects are not directly influenced by any maintenance programs, but rather identified through the WDI's asset condition assessment. Maintenance would be considered if it could be effective to prevent capital spending or extend the life of an asset economically.

There are no foreseeable system capacity issues at this time in WDI's service territory. Based on forecasted development projects, WDI could have feeder capacity constraints that would need to be addressed in the current forecast period if development exceeds current forecast. This would be specific to the proposed Sunnidale Trails development of 2,500 residential lots and commercial development. WDI believes this to be highly unlikely scenario, although WDI will need to address system capacity within the next forecast period as the development matures.

WDI has a very modest capital plan that has a relatively small impact on the customer's power bill. However WDI is sensitive to this impact and attempts to do only what is necessary to be done and also smooth the capital expenditures.

In order to smooth capital expenditures the projects are reviewed if they can be completed economically over the course of two or more years and what the impact of this smoothing will be to WDI customers. The result may be the same total cost or the total cost may be higher as a result of this smoothing. Also the benefits are only achieved to the extent that the work is completed. This was considered when the developing WDI's asset replacement strategy. As such, this was planned to be completed in excess of five years in order to achieve the safety and outage reduction benefit sooner.

Customer engagement was formally done for WDI's customers by way of opinion surveys in 2014 and 2015. The survey and the results can be found at Exhibit 1, Tab 3, Schedule 2 in WDI's COS. The Survey indicates that WDI performs well and is regarded highly as a corporate citizen. The customers did indicate that many of them have concerns for the size of their power bills. WDI takes this into account as it plans its' programs and budgets.

There are no REG investments planned at this time because there are no system constraints identified at this time.

4.3. [5.4.3] System Capacity Assessment for Renewable Energy Generation

Wasaga Distribution operates a 44kV sub-transmission which is fully embedded within the HONI system. Wasaga Distribution is fed from the Stayner TS, it has load on the M4, M5 and M8 feeders. There is also a tie with the Midhurst TS M10 circuit, which can be used in an emergency.

With recent upgrades to the Stayner TS and the addition of a new feeder into Wasaga Beach there doesn't appear to be any feeder capacity issues in the near future. WDI is also taking part in the South Georgian Bay/Muskoka region to help develop the Regional Infrastructure Plan. However, WDI is cognizant of the fact that all renewable generation projects must be approved by IESO, on an individual basis. CIAs capacity impact assessments for FIT projects are completed on WDI and HONI's distribution system.

For Station capacity, WDI has used a generic approach as it pertains to available capacity for renewable generation. WDI tries to not exceed the name plate rating of the station transformers by more than 85%, to allow for some diversity of its system. Also as a rule of thumb, WDI does not allow for single connections larger than 500kW to its distribution system. With this in-mind

and after reviewing the average peak loads in 2014 there appears to be no issues relating to available station transformer capacity.

For feeder capacity and determined available capacity based on feeder protection and conductor sizing. As a rule WDI uses 500mcm copper in duct as its feeder cable, resulting in a full load capacity of 5,544 kW, however to add some diversity to the distribution system a value of 50% (2,774 kW) is typically used.

Table 27 shows the average peak loads in 2014 with the existing and proposed renewable generation projects.

WDI has a total of twenty six (26) microFIT renewable energy generation installations presently connected to their distribution system under the province's Feed-in-Tariff (FIT) and microFIT programs. There are four (4) proposed microFIT installations totalling 38.7kW currently registered with the IESO, which have not yet proceeded to the connection stage, and three (3) FIT projects totally 260kW currently in the queue, which are scheduled to be connected by the end of 2015.

Table 27 - Feeder Summary

MS #	Feeder	Average Peak Load 2014	MicroFIT Connections	Proposed MicroFIT Applications	Proposed FIT Applications
MS #1	Feeder 1	781 kW	1 = 1kW		
MS #1	Feeder 2	75 kW	-		
MS #1	Feeder 3	566 kW	-	2=20kW	
MS #2	Feeder 1	1051 kW	1 = 10kW		
MS #2	Feeder 2	227 kW	-		
MS #3	Feeder 1	1762kW	2 = 14.1kW		1=75kW
MS #3	Feeder 2	2550 kW	7 = 60.5kW	2=18.7kW	
MS #3	Feeder 3	822 kW	1 = 10kW		
MS #3	Feeder 4	1392 kW	1 = 10kW		
MS #4	Feeder 1	2291 kW	2 = 20kW		
MS #4	Feeder 2	1657 kW	1 = 8.6kW		1=85kW
MS #4	Feeder 3	1641 kW	-		
MS #4	Feeder 4	1504 kW	1 = 10kW		
MS #5	Feeder 1	1958 kW	1 = 10kW		
MS #5	Feeder 2	2448 kW	3 = 17.2kW		1=100kW
MS #5	Feeder 3	1656 kW	4 = 37kW		
MS #5	Feeder 4	1137 kW	1 = 10kW		

A summary of the above Table indicates there is available capacity on all the feeders with the exception of MS#3 Feeder 2, MS#4 Feeder 1, and MS#5 Feeder 2, which will need to be analyzed on an individual basis going forward.

WDI has no material system upgrade requirement for REG enabling projects at this time.

4.4. [5.4.4] Capital Expenditure Summary

The capital expenditures of WDI are modest and as a result there are few identifiable separate "projects" to be reported on. WDI has been budgeting on investment categories for the last few years to be aligned with the regulator's requirements. These budgets are mapped to the general ledger accounts for the purpose of accurate reporting and proper accounting treatment. Table 28 outlines the historical expenditures and the capital forecast to 2020 using the investment categories identified by the regulator.

WDI's has a significant portion of overhead plant that is old (more than 40 years in service) and nearing the end of their useful lives. Therefore, WDI has completed an assessment of the condition of the system which indicated health indices for assets in service. The material projects identified created a replacement program in excess of 725 poles, 10km of overhead conductor, and 225 overhead transformers over the forecast period. Furthermore in conjunction with the replacement program these projects will include increased capacity with a new pole line to meet the town's growth on Sunnidale Road, River Road West road widening project, and the replacement pole line on Mosley Street.

WDI is also projecting that an increase in 925 new customers will result from new residential and commercial developments over the forecast period. This is approximately a 1.5% annual growth rate – which is below WDI's historical 10 year average – but is more aligned with recent growth rates. WDI expects capital contributions with annual additions just below materiality.

With expected growth WDI will see costs above materiality for metering and new and upgraded services which is based on projected growth rates, and reflected from historical trends. Additionally in 2015, WDI has started to replace all 1st generation Smart Meters due to encryption issues. This project is expected to continue over a three year period.

Table 28 shows the historical expenditures from 2011 to 2014, the current year forecast expenditures the test year planned expenditures and the forecast expenditures for 2017 to 2020 and the original plan amount from WDI's 2010 asset management plan.

Appendix C has the detailed expenditures and explanations for variances on material projects from 2011-2014. Section 4.5 [5.4.5.2] details all forecasted material projects.

Table 28 - Capital Expenditure Summary

Capital Expenditure Summary																				
	Historical (Previous Plan and Actual)												Forecast (Planned)							
	Test-5			Test-4			Test-3			Test-2			Test -1			Test	Test +1	Test +2	Test +3	Test +4
	2011			2012			2013			2014			2015			2016	2017	2018	2019	2020
	Plan	Actual	% Var	Plan	Actual	% Var	Plan	Actual	% Var	Plan	Actual	% Var	Plan	Forecast	% Var	Plan	Plan	Plan	Plan	Plan
Category	$'000		%	$'000		%	$'000		%	$'000		%	$'000		%	$'000	$'000	$'000	$'000	$'000
System Access	775	236	-69.6	513	499	-2.6	745	439	-41.0	678	876	29.3	580	580	0	589	463	211	516	520
System Renewal	167	92	-44.7	126	603	378.5	126	306	142.7	126	216	71.3	335	335	0	650	744	903	616	628
System Service	55	0	-100	50	257	413.5	65	6	-90.6	65	2	-97.0	0	0	0	10	10	20	10	10
General Plant	0	28	-	0	113	-	0	493	-	0	96	-	135	135	0	30	10	10	0	0
Change in WIP	0	459	-	0	-175	-	0	-377	-	0	31.3	-	0	0	0	0	0	0	0	0
Total	997	815	-18.2	689	1,298	88.5	936	867	-7.4	869	1218	26.0	1,050	1,050	0	1,279	1,226	1,145	1,141	1,158
System O&M	436	631	44.8	454	806	77.5	465	776	66.9	480	777	61.8	828	828	0	872	898	925	953	982

Historical Plan vs. Actual Variance Comparison:

WDI's original Asset Management plan was completed before the current investment categories were provided to WDI, as discussed in section 2.3 [5.2.3] were identified (System Access, System Renewal, System Service, and General Plant). WDI's original plan categories were driven by WDI's general ledger accounts, with the expenditures being allocated between new construction and line improvements. Consequently, WDI's interpretation of new construction programs in the 2010 Asset Management Plan would include a combination of System Access and System Renewal projects, if the categories were used today for comparison. WDI has chosen to classify new construction projects solely as system access as it is felt that no reasonable assumptions at this time could be made otherwise. It is felt that for the sole purpose of comparing the original plan to actual expenditures then System Access and System Renewal should be grouped together in the year reported.

WDI's actual expenditures reported are based on actual assets capitalized in the year reported and follow current MIFRS standards, using the OEB's guidelines, with contributed capital included. WDI's original asset management plan was based on cash expenditures, which subsequently created timing difference. WDI provided detailed expenditures for 2010, and 2011 reported to the regulator (EB-2011-0103), 2012-2014 were projected as estimates.

Variances between Plan and Actual (System Access and System Renewal):

- During 2011, River Road East and Highway 26 pole line expansions/upgrades were originally planned to be completed in 2011, subsequently, these were completed in 2012. The gross difference would account for approximately $700,000 timing difference.
- During 2012, 2013, and 2014 there was no specific material variances, otherwise noted in 2011. These differences were timing differences.

Variances between Plan and Actual (System Service):

- During 2011, Station metering was planned, but never implemented. Additionally, Smart Metering installations were not included in the original Asset Management Plan.
- During 2012, Station metering was planned, instead, SCADA, as well as VLAN communication equipment to communicate with the SCADA was installed. Additionally, Smart Metering installations were not included in the original Asset Management Plan.
- During 2013, there were no material differences.
- During 2014, there were no new investments in Smart Meters.

Variances between Plan and Actual (General Plant):

- This category was not considered in the original Asset Management Plan as management was unaware of guidelines for reporting at that time. The actual expenditures in this category include an upgrade to WDI's Service Center building upgrades, land purchases for increased storage capacity of equipment, and an upgrade to the administration building.

Variances between OM&A Plan and Actual:

- WDI's interpretation of OM&A excluded the allocation of overheads. For the purpose of this report WDI does not feel that this planned reporting was submitted correctly in WDI's 2010 Asset

Management Plan. WDI has revised its reporting for the forecast period to be consistent with WDI's 2016 Cost of Service test year O&M.

Overall, actual historical four year averages from 2011-2014, when combing the investment categories of System Renewal and System Access and comparing to WDI's 2010 Asset Management Plan is shown in Figure 16. As can be seen, when comparing the average spent over a four year period WDI's variances were almost nil, and not material. The only exception was General Plant, which as noted was not considered in WDI's 2010 Asset Management Plan.

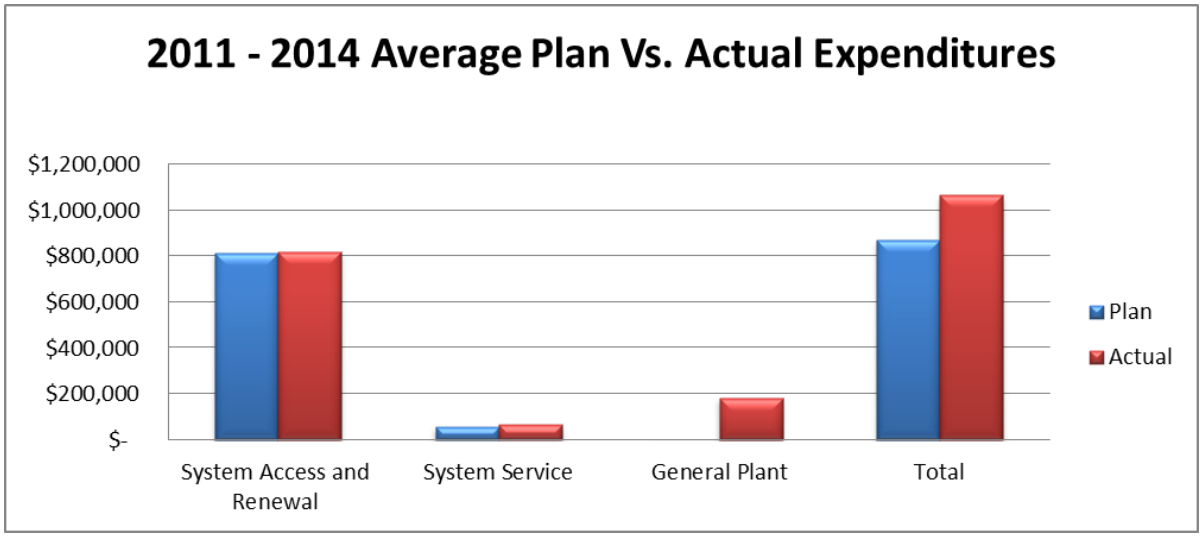


Figure 16: 2011-2014 Average Plan Compared to Average Actual Expenditure

It should be noted that WDI's original Asset Management Plan was prepared up until the end of 2014 - the plan reported for 2015 was updated to reflect WDI's 2015 forecasted expenditure. Moving forward WDI has made adjustments to enhance the Asset Management planning process, using the guidelines and investment categories provided by the regulator for consistent reporting. WDI expects timing differences to occur, but the differences should easily be identifiable. WDI is committed to accurate reporting using best information available at the present time.

4.5. [5.4.5]Justifying Capital Expenditures

4.5.1. Overall Plan

The comparative expenditures made by WDI in the capital categories are shown in Table 29.

Table 29 - 2011 - 2020 Capital Expenditures

Capital Expenditure Summary										
	Historical (Actual)				Forecast (planned)					
	Test-5	Test-4	Test-3	Test-1	Test-1	Test	Test +1	Test +2	Test +3	Test +4
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Actual	Actual	Actual	Actual	Forecast	Plan	Plan	Plan	Plan	Plan
Category	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
System Access	236	499	439	876	580	589	463	211	516	520
System Renewal	92	603	306	216	335	650	744	903	616	628
System Service	0	257	6	2	0	10	10	20	10	10
General Plant	28	113	493	96	135	30	10	10	0	0
Total	356	1,472	1,244	1,189	1,050	1,279	1,227	1,145	1,141	1,158

System Access:

WDIs System Access Projects are driven by others. WDI is obligated to connect new load or new renewable generation. They are also required to respond to the road authorities by obligations under the Public Service Works on Highways Act. The act prescribes a formula for the apportionment of costs that allows for the road authority to contribute 50% of the “cost of labour and labour saving devices” towards the relocation costs. A significant investment in this category is a result of the urban planning to proceed with the road widening of River Road West from Powerline Road to Blueberry Trails. This project is anticipated to cost $1.2 million although there is uncertainty on the exact start and finish date of this project but it expected to be within the scope of this planning period. The best information at this time is that reallocation work will begin in 2018/2019 as has been communicated to WDI as per the town of Wasaga Beach 10 year capital plan for road improvements http://www.wasagabeach.com/town-hall/municipal-engineering.

Overall, System Access annual capital expenditures has historically varied from $236,000 to $876,000, depending on the requirements for new serviced lots (subdivisions), mainly residential customers, as well as providing services to the lots as they are built on and occupied. Also included in the budget figures above is the line construction outside the subdivisions to supply the required load. This work is customer driven and non- discretionary.

Also within System Access work type is customer driven investment which is non- discretionary. This includes the internal servicing of new subdivisions as well as the work required to be done by and funded by WDI to bring an adequate capacity supply to the boundary of the new subdivision. The

annual budget for customer driven investment varies from $160,000 to $375,000 based on the present forecast of new serviced lots (subdivisions) mainly residential, as well as providing services to the lots as they are built and occupied. Also included in the budget figures, is the line construction outside the subdivisions to supply the required load. This work is customer driven and non-discretionary. A significant investment in this category will result from the Sunnidale Trails development in WDI's south-central boundaries with developments expected to bring upwards of 2,500 new customers and commercial developments and a map is provided in Appendix B of proposed developments for the project. WDI is required to provide service to Sunnidale Trails with an anticipated cost of $760,000 to build the new pole line. This project is expected to begin in 2015 and is expected to be within the scope of this planning period. WDI has the need to make sure that there is service available for the Sunnidale Trails development to begin, WDI does not foresee significant load being added in the first phase of the development. However WDI must remain diligent of this particular development throughout the forecast period. WDI will also be required to invest in a new MS which is currently not planned for the forecast period but which will be required to feed this development.

System Renewal:

The annual investment for system renewal has varied historically from $90,000 to $600,000. Through the planning process WDI expects to invest an average of $750,000 per year to address its aging infrastructure.

About 62% of WDI's overhead pole assets are over 40 years old. The poles are weathered and cracked and a number of them have failed in-service causing power interruptions. WDI plans to address older areas throughout WDI's service area. Replacing poles will improve the reliability, and replacing these poles as a capital program will reduce the cost of replacement as compared to a run to failure replacement cost. While this work is discretionary, it is necessary to consider the large number of old poles that are at end of life and replace these at a reasonable pace, as WDI is planning to do—preventing a steady deterioration in service levels to the customers supplied.

Many of the old poles are 35 feet long and in treed areas where the branches are above the conductors. The trees are also generally old and either a branch will fall down or the whole tree will be broken particularly in higher wind situations. This often causes the small gauge conductors to break and adjacent old poles to break. When rebuilding, often taller poles will be used and the wire will be higher. The overhanging vegetation will need to be trimmed to provide clearance to the conductors. This will make the new lines less prone to tree contacts.

As indicated in section 2.1 [5.2.1] WDI has experienced problems with porcelain line insulators. WDI has experienced two major incidents with a particular style and vintage of insulator in 2013.WDI has responded by replacing these insulators with an appropriate polymer based insulator at a modest pace. WDI replaces approximately 160porcelain insulators annually, on average. WDI has not had any major insulator failures since the replacement program began. This project is currently below the materiality threshold.

These projects demonstrate WDI's desire to address the issues, while balancing the cost of the work required by proceeding with the work at a modest pace. If circumstances change a new balance will be struck as appropriate.

The plan for 2015 and 2016 is firm, but the specific pole replacement locations and plans are not detailed at this time. The expected investments for these projects are included in the forecast for 2015 and beyond and are Pole Replacements.

At the present time, WDI has not addressed the underground plant as it is only considered to be a fraction of the way through the journey of its useful life. As the plant approaches 80-90% of its useful life then WDI will institute a more rigorous inspection program to monitor and track the status of these assets. Currently visual inspections are performed as per the requirements of the DSC and will continue until more extensive programs are required.

For all future costs WDI has estimated the effect of cost increases over time. The descriptions for historical projects from 2011-2014 are provided in Appendix C and material forecasted projects from 2015-2020 are detailed in section 4.5 [5.4.5.2] Replacement of Poles, Transformers, Conductor and new and upgraded programs not assigned to specifically location were adjusted for a 2% increase in cost per year.

As detailed in section 4.1 [5.4.1] the historical periods included significant resources being allocated to System Access projects. With growth waning WDI foresees the ability to allocate more resources to System Renewal projects to maintain a long term, sustainable, economical, well-functioning distribution system. WDI is cognizant of the fact that the requirements for system renewal projects, specifically pole replacements, have identified resources that extend the replacement program beyond the horizon of the forecast period. WDI recognizes the impact on ratepayers; therefore WDI will be taking a softer approach to lessen the impact on rate payers through steady and regular investments and a more comprehensive pole testing program.

The capital program for system renewal will prevent an increase in operating cost as end of life deteriorated assets fail in service. This will have minimal impact on the current operation and maintenance cost as replacement can be made in a planned and controlled fashion. Although not material, the insulator replacement program has made cost contributions to the operating and maintenance costs of WDI. These investments will reduce the numbers of failure prone insulators. As actual experience shows the cost reduction the O&M budget will be adjusted appropriately. The failures and hence the costs due to insulator failure were not predictable in any one time period. Hence the impact is not as predictable as one would like but the fact that failures occurred and that these impacted reliability and costs is clear. The expected saving should be apparent in two or three years after the replacement is completed.

System Service:

The annual investment service has varied historically from $2,000 to $350,000. The major investment by WDI was the inclusion of the SCADA system. WDI does not expect to invest in any material projects during the forecast period. WDI is investigating the integration of an Outage Management System (OMS) and further enhancing their GIS within the forecast period.

General Plant:

The annual investment for General Plant has varied historically from $30,000 to $500,000 which includes upgrades to land for storage capacity and service building renovations. There are no material General Plant projects planned for 2016 to 2020.

Maintenance Impact:

When existing plant is renewed some aspects of the maintenance do not change. Inspections need to be carried out on a three year cycle; Infrared testing will be carried out as appropriate and vegetation management will still be required. Some maintenance activities do not need to be carried out. For example pole testing and treatment is only done on older poles. The theory being that with new plant there would be fewer trouble calls or less reactive maintenance. The impact of the reduced maintenance could be seen in 3 years.

4.5.2. Material investments

This section lists the material projects by year from 2015 to 2020. The format is to present a table of material projects sorted by investment category. A project description is provided for each project in the same order as the listing in the table. Project justifications follow the 2015 project listing and descriptions. Historical material projects from 2011-2014 are provided in Appendix C. WDI's materiality threshold is $50,000.

The material projects provided follow the information required in Section 5.4.5.2 of the Chapter 5 filing requirements:

2015 Material projects			
Classification	**Budget item and description**	**Budget**	**Projected**
System Access	Residential and Commercial Development	115,188	75,000
System Access	New and Upgraded Services	105,000	115,000
System Access	Sunnidale Road – Pole Line Expansion	260,000	260,000
System Access	Metering	90,000	90,000
System Access	River Road West – Pole Line Upgrade	50,000	50,000
System Renewal	Misc. Pole Replacements	130,000	130,000
System Renewal	Misc. Transformer Replacements	105,000	105,000
General Plant	Administration Building Upgrades	90,000	90,000

Project Description for Material Projects 2015:

System Access:

1. 2015 Residential and Commercial Development

Budget Amount = $115,188, Projected Amount = $75,000

This amount represents WDI's cost less developer's contributions to installed underground residential subdivisions and commercial installations throughout the Town of Wasaga Beach. WDI is expecting to invest in approximately 170 serviced lots per year.

The timing of these projects is dictated by developer demand which can be hard to accommodate. These projects will become top priority once communicated to WDI. WDI suppliers are sourced to ensure appropriate stock is maintained with minimal delay. Therefore risk of completion of the project is deemed to be minimal.

Evaluation Criteria and Information for Residential and Commercial Development:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value. The subdivision developers, home builders and ultimately the homeowners want electrical power. It is the responsibility of WDI to provide it. The source of the information used to justify this investment is municipal planning studies and direct contact with subdivision developers. These are high priority projects and a system access project to provide electricity to customers.. The installation must be underground as per municipal by-laws. There is one electrical service per lot and common utility practice is 28KV 2/0 Al. primary cable and mini-pad transformers are utilized.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no charge to customers or contractors for any future excavations in the underground area.

- *Cyber-security, Privacy:*

This is not applicable to this project.

- *Co-ordination, Interoperability:*

The installation is completed to WDI standards and Ontario regulation 22/04. The trench is joint use between WDI, Bell Canada, and Rogers Communication to minimize cost and minimize the space requirements in the road allowance.

- *Economic Development:*

Timely electrical servicing of new residential subdivisions is important for economic growth and job creation as the home building industry and associated industries are large employers.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced cost associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required by the developer. When the project is brought forth, the work becomes a top priority.
- The final costs of the projects cannot be determined until the proposed development is communicated to WDI.
- The developer has control over the contractor they use. The developer has the option to contest various parts of the work required in efforts to reduce costs.
- WDI will complete an economic evaluation upon completion of the development to determine what capital contribution is required by the developer.

2. 2015 New and Upgraded Services

Budget Amount = $105,000, Projected Amount = $115,000

This amount represents WDI's cost less customer contributions to new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the electrical safety authority prior to energization.

- *Cyber-security, Privacy:*

This is not applicable to this project.

- *Co-ordination, Interoperability:*

Coordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- *Economic Development:*

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations.
- The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.
- Costs are controlled through a well-established process, using standardized equipment and materials.

3. 2015 Sunnidale Road Pole Line Expansion 1st Phase (multi-year project)

Budget Amount = $260,000, Projected Amount = $260,000

The overall project is designed to provide additional feeder capacity in the Sunnidale Trails area. Planned development for this area includes upwards of 2,500 residential lots. The total length of line is expected to be 2.5 km with connections to a new planned distribution station. Although WDI has the need to make sure that there is service available for the development to begin, WDI does not feel that significant development will be within the forecast period. WDI will also be required to invest in a new MS, which is currently not planned for the forecast period.

The 1st Phase of the project will include construction of approximately 1.0 km of 44kV and 8kV lines, on new sixty foot poles. This will include the replacement of existing end of life assets, and increase in conductor size allowing for increase capacities.

This project will not receive capital contributions.

WDI has assessed this project as medium risk as it also addresses an issue with end of life plant in the area.

Evaluation Criteria and Information for Sunnidale Road Pole Line Expansion:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value in this case the customer will be the developer who require the pole line to allow for additional capacity throughout the development. The project will also aid WDI by replacing existing end of life equipment along Sunnidale Road, and optimizing existing facilities.

The construction of distribution assets is mandatory and is based on the proposed development. Construction will be completed over multi-years thus maintaining reliability and customer value in the short and long term.

- *Safety:*

The installation work is done according to WDI standards and Ontario Regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable to this project

- *Co-ordination, Interoperability:*

Co-ordination with the Town of Wasaga Beach, County of Simcoe their consultants, and other utilities is on-going which helps with the respect to pole construction project coordination. Once a project is initiated WDI works closely with all the authorities involved to maintain coordination and avoiding any undo costs.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed in a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.

4. 2015 Metering

Budget Amount = $90,000, Projected Amount = $90,000

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, FIT and microFIT meters for all classes of customers. This expenditure category also includes replacements due to meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns (450 meters per year). WDI test meters on a random sample basis in accordance with Measurement Canada rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in an area of service territory are failing due to unique circumstances. WDI replaces meters with only a limited quantity still in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

All new residential customers require a smart meter for service. Although WDI is responsible for all customer connections, the completion and timing is dictated by the construction schedule executed by the developer and inspected by the Town. WDI is in the process of replacing 1st generation Smart Meters due to encryption concerns, and due to US exchange rate fluctuations, delivery times from the US, and installations requirements, WDI could face unforeseen circumstances and costs beyond their control. WDI internal procedures have been updated to ensure appropriate procurement is done, as soon as the budgeting process is approved by WDI's Board of Directors to ensure adequate delivery of the Smart Meters in a reasonable timeframe that would allow WDI's staff to swap the meters and ensure project completion.

Evaluation Criteria and Information for New Meters:

- Efficiency, Customer Value, and Reliability

  The main driver for this would be growth and reliability. Customers require Smart Meters for service. WDI also feels that the replacement of the service due to security concerns protects WDI's customers and ensures a reliable distribution network. WDI is also able to ensure a standardized inventory by procuring a base amount of Smart Meters annually to sustain growth and replacement requirements WDI reduces exposure to not securing the inventory in a timely manner. These investments are required and are governed by Measurement Canada.

- *Safety:*

  The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as being in safe working order.

- *Cyber-security, Privacy:*

  WDI's Smart Meter and related AMI network have been procured through Sensus. Sensus' system supports multi-layered security approach including; access control, authorization and data integrity protocols. It also includes a robust AES- 256 based encryption, exceeding current levels used for banking.

- *Co-ordination, Interoperability:*

  Coordination of meter assets must be maintained with customers, contractors, and ESA as required by the scope of work involved.

- *Economic Development:*

  WDI will be coordinating the scheduling of this work to minimize disruptions to businesses and homeowners to the greatest extent possible so that they can continue to maximize the services offered to customers.

- *Environmental Benefits:*

  The Smart Meter infrastructure supports the province's conservation culture. Thus allowing customers to be more aware of their consumption patterns and allowing them to shift their load to "off" peak hours where possible. Smart Meters further reduce manual hard copy reads which create efficiencies.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed in a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.
- WDI will also organize and schedule by geographical sections of the town to make the project more cost efficient when WDI upgrades 1st generation Smart Meters. Call backs due to factors beyond WDI's control could create project delays.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities.
- Costs are controlled through a well-established process, using standardized equipment and materials.

5. 2015 River Road West Road Widening (2nd Phase)

Budget Amount = $50,000, Projected Amount = $50,000

The Town of Wasaga Beach plans to widen River Road West from Oxbow Park Road to Powerline Road. This proposed work results in significant relocation of poles holding overhead 44KV and 8KV lines on a 1.5km stretch. This is a multiple year project with the bulk of the work being completed in 2014. This project includes the installation of primary/secondary connections, and transformers.

The timing of these projects is dictated by the Town of Wasaga Beach and the MTO. Meetings with the Town take place at regular intervals throughout the year which helps WDI anticipate projects and allows WDI to plan these relocates amongst scheduled work. WDI also reviews forecasted plans published by the Town of Wasaga Beach.

Evaluation Criteria and Information for River Road West Road Widening:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value; in this case the customer is the Town of Wasaga Beach who requires pole relocations to allow for the widening of River Road West.

The relocation of distribution assets is mandatory and is based on the proposed road design; however WDI's design is coordinated with the authority, or the authorities' agent, requesting the relocation of the road to determine the best alternative for relocation, while trying to keep costs controlled. WDI does not always have the final approval regarding the design and timing on these types of projects. Relocations of the assets must be completed prior to the commencement of the road works. The Town of Wasaga Beach will fund part of the cost of the project.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable to this project

- *Co-ordination, Interoperability:*

Co-ordination with the Town of Wasaga Beach, its consultants, and other utilities is on-going which helps with the respect to road relocation project co-ordination. Once a project is initiated WDI works closely with the authority requesting the work to consider alternatives, while trying to minimize costs.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the individual projects is based on the scheduling provided by the owner of the road. WDI works closely with the local authorities to ensure projects are not entirely unplanned,

but timing for the most part is not in WDI's control and road relocations remain reactionary in most circumstances.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities.

System Renewal:

6. 2015 Miscellaneous Pole Replacements

Budget Amount = $130,000, Projected Amount = $130,000

The work replaces approximately 50 poles. The poles that are to be replaced are determined to be in the most need of replacement. Further through routine patrols WDI has identified several poles which have significant damage caused by pileated wood peckers. Some of these are considered very high risk and need to be replaced immediately. It was further decided to replace a hand full of the damaged poles with composite poles, thus reducing the risk of having to replace the same poles again. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Pole Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet coordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

7. 2015 Miscellaneous Distribution Transformers

Budget Amount = $105,000, Projected Amount = $105,000

The work replaces approximately 30 transformers based on historical trends, end of life and loading criteria of the assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Distribution Transformers:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are co-ordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future system reliability is maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There is no material projects identified.

General Plant:

8. 2015 Administrative Building Upgrades

Budget Amount = $90,000, Projected Amount = $90,000

The planned projects included are for the replacement of WDI's HVAC equipment, new front signage and lighting retrofit upgrade.

WDI has assessed this project as low risk as once proper procurement of vendors is completed. WDI will then proceed with replacement/construction of assets. The main risk here is the delivery of the equipment.

Evaluation Criteria and Information for Administrative Building Upgrades:

- Efficiency, Customer Value, and Reliability

The main driver for this project is customer value. A new LED light sign would increase organization exposure and enhance customer engagement. This is further enhanced by the fact that WDI's administrative building is on the main throughway through town, and the current signage needs to be replaced. WDI's customer engagement and visibility within the community will increase. Additionally, WDI also completed an Energy Audit and saw positive payback from these projects suggested that included updating WDI's office lighting and replacing an aged HVAC unit.

- *Safety*:

The installation work will be completed following local building codes, and ESA approvals. Extra care will be taken to ensure new lighting levels, meet adequate luminaires.

Cyber-security, Privacy:

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are coordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New HVAC and Lighting will be more energy efficient thus reducing greenhouse gases.

Category-specific requirements:

- WDI conducted an Energy Audit for their lighting that yielded an estimated 20,000 kWh savings/year and $6,540 incentive available through the Save On Energy Portfolio.
- WDI conducted an Energy Audit for their HVAC that yielded up to 7,000 kWh in savings/year and $2,800 incentive.
- WDI follows proper internal procurement processes and evaluates all requested quotes in the best interest of customers.

2016 Material Project List		
Classification	**Budget item and description**	**Plan**
System Access	Residential and Commercial Development	68,750
System Access	New and Upgraded Services	115,000
System Access	Sunnidale Road – Pole Line Expansion	300,000
System Access	Metering	105,000
System Renewal	Misc. Pole Replacements	375,000
System Renewal	Conductor Replacements	75,000
System Renewal	Misc. Transformer Replacements	130,000

Project Description for Material Projects 2016:

System Access:

1. 2016 Residential and Commercial Development

Planned Amount = $68,750

This amount represents WDI's cost less developer's contributions to installed underground residential subdivisions and commercial installations throughout the Town Wasaga Beach. WDI is expecting to invest in approximately 170 serviced lots per year.

The timing of these projects is dictated by developer demand which can be hard to accommodate. These projects will become top priority once communicated to WDI. WDI suppliers are sourced to ensure appropriate stock is maintained with minimal delay. Therefore risk of completion of the project is deemed to be minimal.

Evaluation Criteria and Information for Residential and Commercial Development:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value. The subdivision developers, home building and ultimately the homeowners want electrical power. It is the responsibility of WDI to provide it. The source of the information used to justify this investment is municipal planning studies and direct contact with subdivision developers. These are high priority projects and a system access project to provide electricity to customers. There are few alterative. The installation must be underground as per municipal by-laws. There is one electrical service per lot and common utility practice is 28KV 2/0 Al. primary cable and mini-pad transformers are utilized.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no charge to customers or contractors for any future excavations in the underground area.

- *Cyber-security, Privacy:*

This is not applicable to this project.

- *Co-ordination, Interoperability:*

The installation is completed to WDI standards and Ontario regulation 22/04. The trench is joint use between WDI, Bell Canada, and Rogers Communication to minimize cost and minimize the space requirements in the road allowance.

- *Economic Development:*

Timely electrical servicing of new residential subdivisions is important for economic growth and job creation as home building industry and associated industries are large employers.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required by the developer. When the project is brought forth, the work becomes a top priority.
- The final costs of the projects cannot be determined until the proposed development is communicated to WDI.
- The developer has control over the contractor they use. The developer has the option to contest various parts of the work required in efforts to reduce costs.
- WDI will complete an economic evaluation upon completion of the development to determine what capital contribution is required by the developer.

2. 2016 New and Upgraded Services

Planned Amount = $115,000

This amount represents WDI's cost less customer contributions for new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- Efficiency, Customer Value, and Reliability

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the Electrical Safety Authority prior to energization.

- Cyber-security, Privacy

This is not applicable to this project.

- Co-ordination, Interoperability

Co-ordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- Economic Development

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations
- The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.
- Costs are controlled through a well-established process, using standardized equipment and materials.

3. 2016 Sunnidale Road Pole Line Expansion 2nd Phase (multi-year project)

Budget Amount = $300,000

This project is designed to provide additional feeder capacity in the Sunnidale Trails area. Planned development for this area includes upwards of 2,500 residential lots. The total length of line is expected to be 2.5 km with connections to a new planned distribution station. Although WDI has the need to make sure that there is service available for the development to begin, WDI does not feel that significant development will be within the forecast period. WDI will also be required to invest in a new MS, which is currently not planned for the forecast period.

The 2nd Phase of the project as with the 1st will include construction of approximately 1.0 -1.5 km of 44kV and 8kV lines, on new sixty foot poles. This will include the replacement of existing end of life assets, and increase in conductor size allowing for increase capacities.

WDI has assessed this project as medium risk as it also addresses an issue with end of life plant in the area.

Evaluation Criteria and Information for Sunnidale Road Pole Line Expansion:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value in this case the customer will be the developer who requires the pole line to allow for additional capacity throughout the development. The project will also aid WDI by replacing existing end of life equipment along Sunnidale Road, and optimizing existing facilities.

The construction of distribution assets is mandatory and is based on the proposed development. Construction will be completed over multi-years thus maintaining reliabilities and customer value in the short and long term.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable to this project

- *Co-ordination, Interoperability:*

Co-ordination with the Town of Wasaga Beach, County of Simcoe their consultants, and other utilities is on-going which helps with the respect to pole construction project coordination. Once a project is initiated WDI works closely with all the authorities involved to maintain coordination and avoiding any undo costs.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed on a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.

4. 2016 Metering

Budget Amount = $105,000

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, fit and micro fit meters for all classes of customers. This expenditure category also includes replacements due to meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns (600 meters per year). WDI test meters on a random sample basis in accordance with Measurement Canada rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in an area of service territory are failing due to unique circumstances. WDI replaces meters with limited quantity left in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

WDI has little control of new residential customers as they require a Smart Meter for service and this is outside of WDI's control. Therefore for new growth, there is minimal risk associated. WDI is in the process of replacing 1st generation Smart Meters due to encryption concerns, and due to US exchange rate fluctuations, delivery times delivered from the US, and installations requirements, WDI could face unforeseen costs and circumstances beyond their control. WDI internal procedures have been updated to ensure appropriate procurement is done, as soon as the budgeting process is approved by WDI's Board of Directors to ensure adequate delivery of the Smart Meters in a reasonable timeframe that would allow WDI's staff to swap the meters and ensure project completion.

Evaluation Criteria and Information for New Meters:

- Efficiency, Customer Value, and Reliability

  The main driver for this would be growth and reliability. Customers require Smart Meters for service. WDI also feels that the replacement of the service due to security concerns protects WDI's customers and ensures a reliable distribution network. WDI is also able to ensure a standardized inventory by procuring a base amount of Smart Meters annually to sustain growth

and replacement requirements WDI reduces exposure to not securing the inventory in a timely manner. These investments are required and are governed by Measurement Canada.

- *Safety:*

  The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as being in safe working order.

- *Cyber-security, Privacy:*

  WDI's Smart Meter and related AMI network have been procured through Sensus. Sensus' system supports a multi-layered security approach including; access control, authorization and data integrity protocols. It also includes a robust AES- 256 based encryption, exceeding current levels used for banking.

- *Co-ordination, Interoperability:*

  Co-ordination of meter assets must be maintained with customers, contractors, and ESA as required by the scope of work involved.

- *Economic Development:*

  WDI will be coordinating the scheduling of this work to minimize disruptions to businesses and homeowners to the greatest extent possible so that they can continue to maximize the services offered to customers.

- *Environmental Benefits:*

  The Smart Meter infrastructure supports the province's conservation culture. Thus allowing customers to be more aware of their consumption patterns and allowing them to shift their load to "off" peak hours where possible. Smart Meters further reduce manual hard copy reads which create efficiencies.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed in a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.
- WDI will also organize and schedules by geographical sections of the town to make the project more cost efficient when WDI upgrades from 1st generation Smart Meters. Call backs due to factors beyond WDI's control could create project delays.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities.

- Costs are controlled through a well-established process, using standardized equipment and materials.

System Renewal:

5. 2016 Miscellaneous Pole Replacements

Budget Amount = $375,000

The work replaces approximately 125 poles which is an increase on historical trends. This amount is based on end of life assets and condition of assessment that was completed by WDI. WDI determined that a significant portion of its plant that is nearing the maximum useful life and is in need of being replaced.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced and are identified as being in critical to poor condition which could impact reliability.

WDI is constrained by the total amount of poles identified and therefore is in the process of conducting a more enhanced testing of the poles to assist in further prioritization of the replacement program.

Evaluation Criteria and Information for Miscellaneous Pole Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet coordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

6. 2016 Miscellaneous Conductor Replacements

Planned Amount = $75,000

The work replaces conductors in conjunction with the pole replacement program, based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. WDI intends to replace approximately 2.5 km of conductor per year over the forecast period.

WDI has assessed this project as low risk.

Evaluation Criteria and Information for Miscellaneous Conductor Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the conductor replacement program is removal of old smaller conductor with newer larger conductor at the same time the poles are replaced to increase capacity and save duplication of work in the same geographic area over a period of time. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This

is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

The priority for this investment is medium as it will be in conjunction with pole replacements.

Safety:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the present conductors are smaller and will be replaced with larger stronger conductors which will increase efficiencies for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The assets involved in these projects will primarily be replaced in conjunction with pole replacements projects. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required in coordination with pole replacements and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would not be considered like for like, as an increase in conductor size can align better with future needs, as well as optimizing system requirements, thus improving operation and safety. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

7. 2016 Miscellaneous Distribution Transformers

Budget Amount = $130,000

The work replaces approximately 35 transformers based on end of life and loading conditions and requirements. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Distribution Transformer Replacement:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are coordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.

- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There is no material projects identified.

General Plant:

There is no material projects identified.

2017 Material Project List		
Classification	**Budget item and description**	**Plan**
System Access	New and Upgraded Services	117,300
System Access	Metering	100,000
System Access	Sunnidale Road – Pole Line Expansion	200,000
System Renewal	Mosley Street Pole Line – 45th – 71st Street	100,000
System Renewal	Pole Replacements	382,500
System Renewal	Conductor Replacements	76,500
System Renewal	Transformer Replacements	132,600

Project Description for Material Projects 2017:

System Access:

1. 2017 New and Upgraded Services

Planned Amount = $117,300

This amount represents WDI's cost less customer contributions to new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- Efficiency, Customer Value, and Reliability

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the electrical safety authority prior to energization.

- Cyber-security, Privacy

This is not applicable to this project.

- Co-ordination, Interoperability

Co-ordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- Economic Development

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations
- The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.
- Costs are controlled through a well-established process, using standardized equipment and materials.

2. 2017 Metering

Budget Amount = $100,000

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, fit and micro fit meters for all classes of customers. This expenditure category also includes replacements due to meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns (450 meters per year). WDI test meters on a random sample basis in accordance with Measurement Canada rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in an area of service territory are failing due to unique circumstances. WDI replaces meters with limited quantity left in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

All new residential customers require a Smart Meter for service.. Although the timing and volume is an unknown for new growth, there is minimal risk associated. WDI is in the process of replacing 1st generation Smart Meters due to encryption concerns, and due to US exchange rate fluctuations, delivery

times from the US, and installations requirements, WDI could face unintended cost and schedule impacts. WDI internal procedures have been updated to ensure appropriate procurement is done, as soon as the budgeting process is approved by WDI's Board of Directors to ensure adequate delivery of the Smart Meters in a reasonable timeframe that would allow WDI's staff to swap the meters and ensure project completion.

Evaluation Criteria and Information for New Meters:

- Efficiency, Customer Value, and Reliability

  The main driver for this would be growth and reliability. Customers require Smart Meters for service. WDI also feels that the replacement of the service due to security concerns protects WDI's customers and ensures a reliable distribution network. WDI is also able to ensure a standardized inventory by procuring a base amount of Smart Meters annually to sustain growth and replacement requirements WDI reduces exposure to not securing the inventory in a timely manner. These investments are required and are governed by Measurement Canada.

- *Safety:*

  The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as being in safe working order.

- *Cyber-security, Privacy:*

  WDI's Smart Meter and related AMI network have been procured through Sensus. Sensus' system supports multi-layered security approach including; access control, authorization and data integrity protocols. It also includes a robust AES- 256 based encryption, exceeding current levels used for banking.

- *Co-ordination, Interoperability:*

  Co-ordination of meter assets must be maintained with customers, contractors, and ESA as required by the scope of work involved.

- *Economic Development:*

  WDI will be coordinating the scheduling of this work to minimize disruptions to businesses and homeowners to the greatest extent possible so there are minimal economic impacts to customers.

- *Environmental Benefits:*

  The Smart Meter infrastructure supports the province's conservation culture. Thus allowing customers to be more aware of their consumption patterns and allowing them to shift their load to "off" peak hours where possible. Smart Meters further reduce manual hard copy reads which create efficiencies.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed in a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.
- WDI will organize and schedule by geographical sections of the town to make the project more cost efficient when the project involves upgrading from 1st generation Smart Meters. Call backs due to factors beyond WDI's control could create project delays.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities.
- Costs are controlled through a well-established process, using standardized equipment and materials.

3. 2017 Sunnidale Road Pole Line Expansion (Final Phase)

Budget Amount = $200,000

This project is designed to provide additional feeder capacity in the Sunnidale Trails area. Planned development for this area includes upwards of 2,500 residential lots, along with several commercial lots. The total length of line is expected to be 2.5 km with connections to a new planned Municipal Station. Although WDI has the need to make sure that there is service available for the development to begin, WDI does not feel that significant development will be within the forecast period. WDI will also be required to invest in a new MS, which is currently not planned for the forecast period.

The final Phase of the project will include construction of the remaining portion of Sunnidale Road consisting of 44kV and 8kV lines, on new sixty foot poles. This will include the replacement of existing end of life assets, and increase in conductor size allowing for increase capacities.

WDI has assessed this project as medium risk as it also addresses an issue with end of life plant in the area.

Evaluation Criteria and Information for Sunnidale Road Pole Line Expansion:

- *Efficiency, Customer Value, and Reliability:*

The main driver is customer value in this case the customer will be the developer who requires the pole line to allow for additional capacity throughout the development. The project will also aid WDI by replacing existing end of life equipment along Sunnidale Road, and optimizing existing facilities.

The construction of distribution assets is mandatory and is based on the proposed development. Construction will be completed over multi-years thus maintaining reliabilities and customer value in the short and long term.

- *Safety:*

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization.

This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable to this project

- *Co-ordination, Interoperability:*

Co-ordination with the Town of Wasaga Beach, County of Simcoe their consultants, and other utilities is on-going which helps with the respect to pole construction project co-ordination. Once a project is initiated WDI works closely with all the authorities involved to maintain coordination and avoiding any undo costs.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the project is based on the scheduling provided by the developers. WDI works closely with the developers and local authorities to ensure projects are completed on a timely fashion. WDI has some control to the external works of the development and remain reactionary in most circumstances.

System Renewal:

4. 2017 Mosley Street Pole Line – 45th – 71st Street (1st Phase)

Planned Amount = $100,000

This project is designed to replace aging assets along Mosley Street between 45th Street - 71st Street. The total length of line is expected to be approximately 2 km. The majority of the assets along this route are nearing in excess of 50 years old and has been identified within WDI's asset condition assessment to be nearing their maximum useful life.

The 1st Phase of this project will include construction of approximately 500 metres of 3 phase 8kV, on new forty five foot poles. This will include the replacement of existing end of life assets, and increase in conductor size allowing for increase capacities.

WDI has assessed this project as medium risk as it also addresses an issue with end of life plant in the area and assists WDI in maintaining liability.

Evaluation Criteria and Information for Mosley Street Pole Line:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.

- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

5. 2017 Miscellaneous Pole Replacements

Budget Amount = $382,500

The work replaces approximately 125 poles which is an increase on historical trends. This amount is based on end of life assets and condition of assessment that was completed by WDI. WDI determined that a significant portion of its plant that is nearing the maximum useful life and is in need of being replaced.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced and are identified as being in critical to poor condition which could impact reliability.

WDI is constrained by the total amount of poles identified and therefore is in the process of conducting a more enhanced testing of the poles to assist in further prioritization of the replacement program.

Evaluation Criteria and Information for pole replacement program:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

6. 2017 Miscellaneous Conductor Replacements

Planned Amount = $76,500

The work replaces conductors based on historical trends and in conjunction with the pole replacement program, based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. WDI intends to replace approximately 2.5 km of conductor per year over the forecast period.

WDI has assessed this project as low risk.

Evaluation Criteria and Information for Miscellaneous Conductor Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the conductor replacement program is removal of old smaller conductor with newer larger conductor at the same time the poles are replaced to increase capacity and save duplication of work in the same geographic area over a period of time. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This

is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

The priority for this investment is medium as it will be in conjunction with pole replacements.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the present conductors are smaller and will be replaced with larger stronger conductors which will increase efficiencies for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The assets involved in these projects will primarily be replaced in conjunction with pole replacements projects. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required in coordination with pole replacements and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would not be considered like for like, as an increase in conductor size can align better with future needs, as well as optimizing system requirements, thus improving operation and safety. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

7. 2017 Miscellaneous Distribution Transformers

Budget Amount = $132,600

The work replaces approximately 35 transformers based on historical trends, and based on end of life and over loaded assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Distribution Transformers:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are co-ordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.

- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There are no material projects identified.

General Plant:

There are no material projects identified.

2018 Material Project List		
Classification	**Budget item and description**	**Plan**
System Access	New and Upgraded Services	119,646
System Renewal	Mosley Street Pole Line – 45th – 71st Street	300,000
System Renewal	Pole Replacements	390,150
System Renewal	Conductor Replacements	78,030
System Renewal	Transformer Replacements	135,252

Project Description for Material Projects 2018:

System Access:

1. 2018 New and Upgraded Services

Planned Amount = $119,646

This amount represents WDI's cost less customer contributions to new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- Efficiency, Customer Value, and Reliability

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the electrical safety authority prior to energization.

- Cyber-security, Privacy

This is not applicable to this project.

- Co-ordination, Interoperability

Co-ordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- Economic Development

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations
- The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.
- Costs are controlled through a well-established process, using standardized equipment and materials.

System Renewal:

2. 2018 Mosley Street Pole Line – 45th – 71st Street

Planned Amount = $300,000

This project is designed to replace aging assets along Mosley Street between 45th Street - 71st Street. The total length of line is expected to be approximately 2 km. The majority of the assets along this route are nearing in excess of 50 years old and has been identified within WDI's asset condition assessment to be nearing their maximum useful life.

The 1st Phase of this project will include construction of approximately 500 metres of 3 phase 8kV, on new forty five foot poles. This will include the replacement of existing end of life assets, and increase in conductor size allowing for increase capacities.

WDI has assessed this project as medium risk as it also addresses an issue with end of life plant in the area and assists WDI in maintaining liability.

Evaluation Criteria and Information for Mosley Street Pole Line:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.

- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

3. 2018 Miscellaneous Pole Replacements

Budget Amount = $390,150

The work replaces approximately 125 poles which is an increase on historical trends. This amount is based on end of life assets and condition of assessment that was completed by WDI. WDI determined that a significant portion of its plant that is nearing the maximum useful life and is in need of being replaced.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced and are identified as being in critical to poor condition which could impact reliability.

WDI is constrained by the total amount of poles identified and therefore is in the process of conducting a more enhanced testing of the poles to assist in further prioritization of the replacement program.

Evaluation Criteria and Information for Pole Replacements:

Efficiency, Customer Value, and Reliability:

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

4. 2018 Miscellaneous Conductor Replacements

Planned Amount = $78,030

The work replaces conductors based on historical trends and in conjunction with the pole replacement program, based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. WDI intends to replace approximately 2.5 km of conductor per year over the forecast period.

WDI has assessed this project as low risk.

Evaluation Criteria and Information for Miscellaneous Conductor Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the conductor replacement program is removal of old smaller conductor with newer larger conductor at the same time the poles are replaced to increase capacity and save duplication of work in the same geographic area over a period of time. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

The priority for this investment is medium as it will be in conjunction with pole replacements.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the present conductors are smaller and will be replaced with larger stronger conductors which will increase efficiencies for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The assets involved in these projects will primarily be replaced in conjunction with pole replacements projects. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required in coordination with pole replacements and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would not be considered like for like, as an increase in conductor size can align better with future needs, as well as optimizing system requirements, thus improving operation and safety. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

5. 2018 Miscellaneous Distribution Transformers

Planned Amount = $135,252

The work replaces approximately 35 transformers based on historical trends, and based on end of life and over loaded assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Distribution Transformers:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are co-ordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending of the condition of assets.

- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There is no material projects identified.

General Plant:

There is no material projects identified.

2019 Material Project List		
Classification	**Budget item and description**	**Plan**
System Access	New and Upgraded Services	122,039
System Access	River Road West Road Widening	300,000
System Renewal	Pole Replacements	397,953
System Renewal	Conductor Replacements	79,591
System Renewal	Transformer Replacements	137,957

Project Description for Material Projects 2019:

System Access:

1. 2019 New and Upgraded Services

Planned Amount = $122,039

This amount represents WDI's costless customer contributions to new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- Efficiency, Customer Value, and Reliability

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the electrical safety authority prior to energization.

- Cyber-security, Privacy

This is not applicable to this project.

- Co-ordination, Interoperability

Co-ordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- Economic Development

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations

The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.

Costs are controlled through a well-established process, using standardized equipment and materials.

2. 2019 River Road West Road Widening (1st Phase)

Planned Amount = $300,000

The work replaces aged poles and conductors based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. This project will relocate approximately 1.0 – 1.5 km of line, which consists of both 44kv and 8kv circuits. This project is municipally driven for River Road West road widening between Powerline Road and Blueberry Trails Road.

The timing of these projects is dictated by the Town of Wasaga Beach or the MTO and therefore timing is out of WDI's control. Meetings with the town takes place continuously throughout the year which helps WDI anticipate projects and allows WDI to plan these relocates amongst planned work. WDI also reviews forecasted plans published by the Town of Wasaga Beach.

Evaluation Criteria and Information for River Road West Road Widening:

- Efficiency, Customer Value, and Reliability

The main driver is customer value in this case the customer is the Town of Wasaga Beach who require pole relocations to allow for the widening of River Road West.

The relocation of distribution assets is mandatory and is based on the proposed road design; however WDI's design is coordinated with the authority, or the authorities' agent, requesting the relocation of the road to determine the best alternative for relocation, while trying to keep costs controlled. WDI is not fully in control of the outcomes or the alternative selected on these types of projects. Reallocations must be done prior to the commencement of the road work the Town of Wasaga Beach will fund part of the cost of the project.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- Cyber-security, Privacy

This is not applicable to this project

- Co-ordination, Interoperability

Co-ordination with the Town of Wasaga Beach, its consultants, and other utilities is on-going which helps with the respect to road relocation project coordination. Once a project is initiated WDI works closely with the authority requesting the work to consider alternatives, while trying to minimize costs.

- Economic Development

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the individual projects is based on the scheduling provided by the owner of the road. WDI works closely with the local authorities to ensure projects are not entirely unplanned, but timing for the most part not in WDI's control and road relocations remain reactionary in most circumstances.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities

System Renewal:

3. 2019 Miscellaneous Pole Replacements

Budget Amount = $397,953

The work replaces approximately 125 poles which is an increase on historical trends. This amount is based on end of life assets and condition of assessment that was completed by WDI. WDI determined that a significant portion of its plant that is nearing the maximum useful life and is in need of being replaced.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced and are identified as being in critical to poor condition which could impact reliability.

WDI is constrained by the total amount of poles identified and therefore is in the process of conducting a more enhanced testing of the poles to assist in further prioritization of the replacement program.

Evaluation Criteria and Information for pole replacement program:

- *Efficiency, Customer Value, and Reliability:*

  The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

  The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

  This is not applicable.

- *Co-ordination, Interoperability:*

  This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

4. 2019 Miscellaneous Conductor Replacements

Planned Amount = $79,591

The work replaces conductors based on historical trends and in conjunction with the pole replacement program, based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. WDI intends to replace approximately 2.5 km of conductor per year over the forecast period.

WDI has assessed this project as low risk.

Evaluation Criteria and Information for Miscellaneous Conductor Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the conductor replacement program is removal of old smaller conductor with newer larger conductor at the same time the poles are replaced to increase capacity and save duplication of work in the same geographic area over a period of time. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

The priority for this investment is medium as it will be in conjunction with pole replacements.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the present conductors are smaller and will be replaced with larger stronger conductors which will increase efficiencies for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet coordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The assets involved in these projects will primarily be replaced in conjunction with pole replacements projects. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required in coordination with pole replacements and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would not be considered like for like, as an increase in conductor size can align better with future needs, as well as optimizing system requirements, thus improving operation and safety. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

5. 2019 Miscellaneous Distribution Transformers

Budget Amount = $137,957

The work replaces approximately 35 transformers based on historical trends, and based on end of life and over loaded assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Residential and Commercial Development:

- *Efficiency, Customer Value, and Reliability:*

  The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

  The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

  This is not applicable.

- *Co-ordination, Interoperability:*

  Replacements are coordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

  New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.

- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There is no material projects identified.

General Plant:

There is no material projects identified.

2020 Material Project List		
Classification	**Budget item and description**	**Plan**
System Access	New and Upgraded Services	124,709
System Access	River Road West Road Widening	300,000
System Renewal	Pole Replacements	405,912
System Renewal	Conductor Replacements	81,182
System Renewal	Transformer Replacements	140,716

Project Description for Material Projects 2020:

System Access:

1. 2020 New and Upgraded Services

Planned Amount = $124,709

This amount represents WDI's cost less customer contributions to new and upgraded services (low voltage). Activity varies each year based on customer requirements.

This is routine work for WDI and therefore WDI has assessed the risk of completion as nil for this project.

Evaluation Criteria and Information for New and Upgraded Services:

- Efficiency, Customer Value, and Reliability

The main driver is customer value. Projects are mandatory and scope and timelines are based on requirements put forth by customers and/or obligations set forth in connecting customers in the DSC. Upgrading existing of installing new services is a top priority. Additionally alternatives are limited as servicing options are standardized by municipal by-law and WDI's Condition of Services.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. WDI provides underground cable locates at no cost to customer and contractor for any future excavations in the underground area.

Written authorization is required from the electrical safety authority prior to energization.

- Cyber-security, Privacy

This is not applicable to this project.

- Co-ordination, Interoperability

Co-ordination with customers and electricians are an important part of this project. The trench is joint use between WDI, Bell Canada and Rogers Communication to minimize cost and space requirements.

- Economic Development

Servicing is important for economic growth and job creation as the homebuilding industry and associated industries are large employers.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of individual projects is based on what is required, and is initiated by the customer. The project becomes a priority once brought forth. This is part of WDI's daily operations
- The final costs of the projects vary from each project and cannot be determined until an estimate is provided to the customer. The customer is responsible for the cost difference between the basic overhead service versus underground service as stated requirements for new and upgraded services.
- Costs are controlled through a well-established process, using standardized equipment and materials.

2. 2020 River Road West Road Widening (2nd Phase)

Planned Amount = $300,000

The work replaces aged poles and conductors based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. This project will relocate approximately 1.0 – 1.5 km of line, which consists of both 44kv and 8kv circuits. This project is municipally driven for River Road West road widening between Powerline Road and Blueberry Trails Road.

The timing of these projects is dictated by the Town of Wasaga Beach or the MTO and therefore timing is out of WDI's control. Meetings with the town take place continuously throughout the year which helps WDI anticipate projects and allows WDO to plan these relocates amongst planned work. WDI also reviews forecasted plans published by the Town of Wasaga Beach.

Evaluation Criteria and Information for River Road West Road Widening (2nd Phase):

- Efficiency, Customer Value, and Reliability

The main driver is customer value in this case the customer is the Town of Wasaga Beach who require pole relocations to allow for the widening of River Road West.

The relocation of distribution assets is mandatory and is based on the proposed road design; however WDI's design is coordinated with the authority, or the authorities' agent, requesting the relocation of the road to determine the best alternative for relocation, while trying to keep costs controlled. WDI is not fully in control of the outcomes or the alternative selected on these types of projects. Reallocations must be done prior to the commencement of the road work the Town of Wasaga Beach will fund part of the cost of the project.

- Safety

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- Cyber-security, Privacy

This is not applicable to this project

- Co-ordination, Interoperability

Co-ordination with the Town of Wasaga Beach, its consultants, and other utilities is on-going which helps with the respect to road relocation project co-ordination. Once a project is initiated WDI works closely with the authority requesting the work to consider alternatives, while trying to minimize costs.

- Economic Development

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- Environmental Benefits

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The timing of the individual projects is based on the scheduling provided by the owner of the road. WDI works closely with the local authorities to ensure projects are not entirely unplanned, but timing for the most part not in WDI's control and road relocations remain reactionary in most circumstances.
- WDI will source local contractors when needed to ensure the schedule is met as requested by local authorities:

System Renewal:

3. 2020 Miscellaneous Pole Replacements

Budget Amount = $405,912

The work replaces approximately 125 poles which is an increase on historical trends. This amount is based on end of life assets and condition of assessment that was completed by WDI. WDI determined that a significant portion of its plant that is nearing the maximum useful life and is in need of being replaced.

WDI has assessed this project as a high risk project as there are significant poles identified in the DSP that need to be replaced and are identified as being in critical to poor condition which could impact reliability.

WDI is constrained by the total amount of poles identified and therefore is in the process of conducting a more enhanced testing of the poles to assist in further prioritization of the replacement program.

Evaluation Criteria and Information for Miscellaneous Pole Replacement:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the pole replacement program is reliability. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures are the result of weather stressors such as high winds.

The priority for this investment is relatively high as WDI has identified that 60% of poles in service have exceeded their TUL and through routine patrols, WDI has identified damaged poles.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the current poles will be replaced with new poles which will meet current standards for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet coordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Pole replacements typically remove poles which are treated with chemicals that do not meet today's environmental standards.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

4. 2020 Miscellaneous Conductor Replacements

Planned Amount = $81,182

The work replaces conductors based on historical trends and in conjunction with the pole replacement program, based on end of life assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes. WDI intends to replace approximately 2.5 km of conductor per year over the forecast period.

WDI has assessed this project as low risk.

Evaluation Criteria and Information for Miscellaneous Conductor Replacements:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the conductor replacement program is removal of old smaller conductor with newer larger conductor at the same time the poles are replaced to increase capacity and save duplication of work in the same geographic area over a period of time. There is the risk of plant failing in service and creating long outages for customers and added O&M costs for the utility. This is intensified if there are simultaneous failures if the failures are the result of weather stressors such as high winds.

The priority for this investment is medium as it will be in conjunction with pole replacements.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. The work is inspected by WDI and signed off as safe prior to energization. This project will enhance safety since the present conductors are smaller and will be replaced with larger stronger conductors which will increase efficiencies for ice and wind loading.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

This project is designed to meet co-ordination with third party companies.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

Optimizing equipment sizing contributes to reduced line loss, resulting in decreased power consumption and reduced associated impacts.

Category-specific requirements:

- The assets involved in these projects will primarily be replaced in conjunction with pole replacements projects. The asset condition relative to typical life varies project to project.
- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required in coordination with pole replacements and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would not be considered like for like, as an increase in conductor size can align better with future needs, as well as optimizing system requirements, thus improving operation and safety. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

5. 2020 Miscellaneous Distribution Transformers

Budget Amount = $140,716

The work replaces approximately 35 transformers based on historical trends, and based on end of life and over loaded assets. WDI has recently completed an asset condition assessment in conjunction with the DSP which has been able to aid in future years for forecasting purposes.

WDI has assessed this project as a medium to high risk project as there is a significant number of transformers identified in the DSP that will need to be replaced, which could impact reliability.

Evaluation Criteria and Information for Miscellaneous Distribution Transformers:

- *Efficiency, Customer Value, and Reliability:*

The main driver of the transformer replacement program is reliability. There is the risk of plant failing in service and creating outages for customers and added O&M costs for the utility.

The priority for this investment is relatively high as WDI has identified a large number of transformers in service that have exceeded their TUL.

- *Safety*:

The installation work is done according to WDI standards and Ontario regulation 22/04 to ensure no undue safety hazards. This project will enhance safety since the current transformers will be replaced with new poles which will meet current CSA standards.

- *Cyber-security, Privacy:*

This is not applicable.

- *Co-ordination, Interoperability:*

Replacements are co-ordinated with customers in mind.

- *Economic Development:*

Local contractors and local materials are sourced wherever possible providing an economic benefit to the area.

- *Environmental Benefits:*

New transformers are built with reduced losses in mind. Old transformers are disposed of using approved environmental contractors.

Category-specific requirements:

- The assets involved in these projects have failed or are about to fail and therefore have reached the end of their useful life. The asset condition relative to typical life varies project to project.

- The number of customers affected varies from project to project.
- The quantitative impact and risk vary from project to project depending on the condition of assets.
- Replacement of these assets will ensure future reliability statistics are maintained, and eliminate safety issues which may arise which will help improve customer service.
- Scheduling of this work depends on the severity of the asset condition.
- Investments in this project are required immediately and are not subject to project prioritization as they are for the most part non-discretionary.
- The majority of this work would be considered like for like renewal, however sometimes assets are adjusted to align with future needs or to improve operation or safety to save future costs. These adjustments would be made on a project by project basis.
- Customer surveys have indicated that customers prefer a system that delivers power continuously and with as few interruptions as possible at the lowest price.

System Service:

There is no material projects identified.

General Plant:

There is no material projects identified.

5. Appendix listing

Appendix Section:

- 5.1 Appendix A: OPA Reply to Renewable Energy generation Report by Wasaga Distribution Inc.
- 5.2 Appendix B: Town of Wasaga Beach Planning Map
- 5.3 Appendix C: Wasaga Distribution's 2011-2014 Historical Capital program details and explanations
- 5.4 Appendix D: AESI Acumen Engineered Solutions International – Review Responses
- 5.5 Appendix E: Wasaga Distribution's 2014 Strategic Plan

5.1. Appendix A: OPA Reply to Renewable Energy generation

IESO Letter of Comment

Wasaga Distribution Inc. Renewable Energy Generation Investments Plan 2016 – 2020

July 29, 2015

ieso
Independent Electricity System Operator

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 Ontario Power Authority[1] ("OPA") 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 OPA, or participated in planning meetings with the OPA;
- the potential need for co-ordination with other distributors and/or transmitters or others on implementing elements of the REG investments; and
- whether the REG investments proposed in the DS Plan are consistent with any Regional Infrastructure Plan.

Wasaga Distribution Inc. – Distribution System Plan

On June 1, 2015 Wasaga Distribution Inc. ("WDI") provided its Renewable Energy Generation Investments Plan ("Plan") to the IESO as part of its 5-year Distribution System Plan from 2016-2020. The IESO has reviewed WDI's Plan and has provided its comments below.

OPA FIT/microFIT Applications Received

Wasaga Distribution Inc.'s Plan indicates that it has 26 microFIT projects for a total capacity of 218.4 kW currently connected to its distribution system. The Plan identifies 3 FIT projects totalling 260 kW that are in the queue awaiting connection to WDI's system, and 4 microFIT projects totalling 38.7 kW currently registered with the IESO, that have not proceeded to the connection stage.

According to the IESO's information, as of May 31, 2015, the IESO has offered contracts to 27 microFIT projects representing a capacity of 228.42 kW. The IESO has also offered contracts to 3 FIT projects totalling 300 kW of capacity, all of which are still active in WDI's service territory. The renewable energy generation connections information in WDI's Plan is therefore reasonably 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.

Consultation / Participation in Planning Meetings; Coordination with Distributors / Transmitters / Others; Consistency with Regional Plans

The IESO notes that WDI is part of the South Georgian Bay/Muskoka Region for regional planning purposes, which is a "Group 2" priority region. Wasaga Distribution Inc. is one of the local distribution companies ("LDCs") serving customers in the region, and as such, was a Regional Participant in the South Georgian Bay/Muskoka Regional planning process, along with Hydro One Networks Inc. (Lead Transmitter), Hydro One Networks Inc. (Distribution), IESO, InnPower Corp., Lakeland Power Distribution Ltd., Midland Power Utility Corp., Orangeville Hydro Ltd., Orillia Power Distribution Corp., Parry Sound Power Corp., Newmarket-Tay Power Distribution Ltd., and Veridian Connections Inc.

Wasaga Distribution Inc. was involved in the Needs Assessment[2] process for the region which was finalized on March 3, 2015, and the Scoping Assessment process for the South Georgian Bay/ Muskoka Region[3] which was finalized on June 22, 2015.

Wasaga Distribution Inc. is fully embedded within the Hydro One Networks Inc. system and indicates that it has identified only minimal distribution system constraints at this time, none of which it says prevent the connection of renewable energy generation connections forecast. As a result, the LDC is not planning any capital investments for capacity upgrades over the 5-year period (2016 to 2020). However, WDI does not leave out the possibility that based on future developments combined with future REG connections, that such investments may be required later.

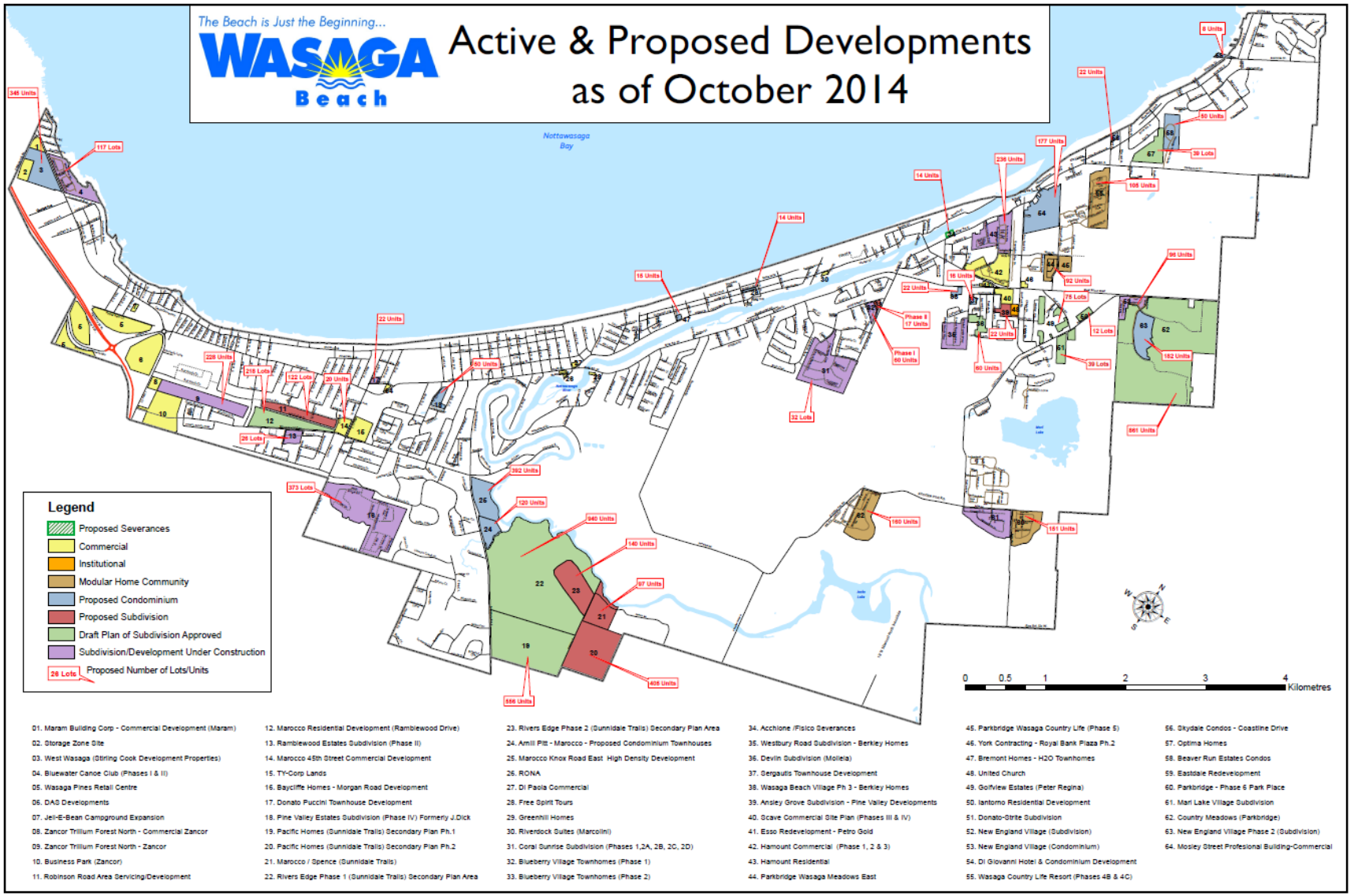
The recommendations of the Scoping Assessment Outcome Report identified two sub-regions with needs to be addressed through the Integrated Regional Resource Planning ("IRRP") process: Barrie/Innisfil, and Parry Sound/Muskoka. Wasaga Distribution Inc. is not one of the distributors identified within these sub-regions, and is therefore not required to participate in either IRRP.

The IESO looks forward to participating with Wasaga Distribution Inc. on regional planning in the future and appreciates the opportunity to comment on the renewable energy generation information provided as part of its Distribution System Plan.

[2] Then Needs Assessment report for the South Georgian Bay/Muskoka Region can be found at http://www,hydroone.com/RegionalPlanning/SGB-Muskoka/Pages/Default.aspx

[3] Then Scoping Assessment Outcome Report for the South Georgian Bay/Muskoka Region can be found at http://www.ieso.ca/Pages/Ontario's-Power-System/Regional-Planning/South-Georgian-Bay-Muskoka/default.aspx

5.2. Appendix B: Active & Proposed Developments as of October 2014



5.3. Appendix C: 2011-2014 Material Historical Capital program details and explanations

2011 Material Project List		
Classification	**Budget item and description**	**Expenditure**
System Access	New and Upgraded Services	111,751
System Access	Metering	67,641

Project Description for Material Projects 2011:

System Access:

1. New and Upgraded Services

Expenditure Amount = $111,751

This amount represents WDI's cost less customer contributions to new and upgraded services. Activity varies each year based on customer requirements. The total capital contributions for this project were $84,134

2. Metering

Expenditure Amount = $67,641

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, fit and micro fit meters for all classes of customers. This expenditure category also includes replacements due meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns. WDI test meters on a random sample basis in accordance with measurement Canada rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in a area of service territory are failing due to unique circumstances. WDI replaces meter that have only a few left in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

System Renewal:

There were no material projects.

System Service:

There were no material projects.

General Plant:

There were no material projects.

2012 Material Project List		
Classification	**Budget item and description**	**Expenditures**
System Access	New and Upgraded Services	88,353
System Access	Metering	90,637
System Renewal	Hwy 26 Pole Line Expansion	255,707
System Service	SCADA	129,942
System Service	VLAN & towers – Communication Equipment	126,793
General Plant	Land Purchase – Storage	106,886

Project Description for Material Projects 2012:

System Access:

1. New and Upgraded Services

Expenditure Amount = $88,353

This amount represents WDI's costs less customer contributions to new and upgraded services. Activity varies each year based on customer requirements. The total capital contributions for this project was $65,316

2. Metering

Expenditure Amount = $90,637

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, fit and micro fit meters for all classes of customers. This expenditure category also includes replacements due meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns. WDI test meters on a random sample basis in accordance with measurement Canada rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in a area of service territory are failing due to unique circumstances. WDI replaces meter that have only a few left in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

System Renewal:

3. River Road East Pole Line Replacement

Expenditure Amount = $446,559

The work replaces aged poles and conductors based on end of life assets. The pole line replacement was approximately 1.5km in length along River Road East and was going through a heavily treed area. This project was driven by safety and reliability impacts.

System Service:

4. SCADA

Expenditure Amount = $129,942

WDI invested in SCADA equipment for increase reporting and monitoring requirements. The equipment was installed on all of WDI's distribution stations.

5. VLAN Towers and Equipment

Expenditure Amount = $126,793

This project was in conjunction with WDI's SCADA equipment and invested in to provide increased reporting and monitoring.

General Plant:

6. Service Centre Land – Storage Purchase

Expenditure Amount = $106,886

The investment was made as a parcel of land adjacent to WDI's Service Centre became available for purchase. The purchase has been used to increase WDI's outdoor storage capacity.

2013 Material Project List		
Classification	**Budget item and description**	**Expenditures**
System Access	Residential and Commercial Development	71,089
System Access	New and Upgraded Services	92,310
System Access	Metering	62,293
System Access	Hwy 26 Primary Metering Equipment	97,995
System Access	Puccine Drive – O/H Expansion and Development	115,599
System Renewal	Hwy 92 upgrade	141,356
System Renewal	Distribution Station Equipment upgrade	84,606
General Plant	Service Centre Upgrade	464,754

Project Description for Material Projects 2013:

System Access:

1. Residential and Commercial Development

Expenditure Amount = $71,089

WDI's 2013 developments included Stonebridge Phase 4D, Country Meadows Phase 2D, Wally Drive development, Wasaga Meadows East Phase 1, Mosley Street, Sandy Coast Drive Phase 5, and New England Village. These developments were driven by growth and total contributions received for these projects were $363,963.

2. New and Upgraded Services

Expenditure Amount = $92,310

This amount represents WDI's cost less customer contributions to new and upgraded services. Activity varies each year based on customer requirements. The total capital contributions were $82,205.

3. Metering

Expenditure Amount = $62,292

WDI budgets annual meter capital expenditures to encompass all new services including single phase, three phase, fit and micro fit meters for all classes of customers. This expenditure category also includes replacements due meter failures and the results of WDI's meter sampling process. WDI is also in the process of removing all 1st generation Sensus Smart Meters due to encryption concerns. WDI test meters on a random sample basis in accordance with measurement Canada

rules and will replace meters that are faulty or expected to fail. Meters will be replaced if a particular meter type has a history of poor reliability or if meters in a area of service territory are failing due to unique circumstances. WDI replaces meter that have only a few left in service to move towards standardization and to eliminate meters for which parts and services are difficult to obtain.

4. Hwy 26 Primary Metering Equipment

Expenditure Amount = $97,995

This investment was in conjunction with the new Hwy 26 expansion and included the access to an additional feeder point. This was mainly driven by the ability for WDI to increase reliability,

5. Puccine Drive – O/H expansion and development

Expenditure Amount = $115,559

This project was driven by growth with the benefit of replacing aged equipment to support a new development. The total contributions received for this project was $34,919.

System Renewal:

6. Hwy 92 upgrade

Expenditure Amount = $141, 256

This project was driven by growth and is to be used for expansion. By WDI upgrading this pole line WDI is able to maintain reliability and increase capacity for new developments in the east end of town.

7. Distribution Station Equipment upgrade

Expenditure Amount = $84,606

WDI invested in two new medium voltage vacuum breakers, for feeders 1 and 2 at its MS#3 station. The main driver for replacing these assets was the age and potential for failure. With this replacement WDI has been able to extend the overall life of MS#3.

System Service:

There were no material expenditures.

General Plant:

8. Service Centre Upgrade

Expenditure Amount = $464,754

WDI's Service Centre building was renovated to accommodate operation staff for current and future needs, bring the building up to code and to provide for better housekeeping, office spaces, and other facilities. WDI also invested in a new HVAC system for the building. The building renovate was originally inherited from Hydro One.

2014 Material Project List		
Classification	**Budget item and description**	**Expenditures**
System Access	Residential and Commercial Development	64,028
System Access	New and Upgraded Services	159,903
System Access	Upper Wasaga Express Feeder	149,484
System Access	Distribution Station – Repurchase	274,000
System Access	River Road West – Pole Line Road Widening project	216,515
System Renewal	Distribution Station Equipment	51,785
System Renewal	Pole Replacements	60,656
System Renewal	Transformer Replacements	72,999
General Plant	Land Purchase – Storage	91,245

Project Description for Material Projects 2014:

System Access:

1. Residential and Commercial Developments

Expenditure Amount = $64,028

These developments were driven by growth with major projects in New England Village, Villages of Upper Wasaga, Park Place, Wasaga Meadows and various commercial developments. The total contributions for these projects were $457,622.

2. New and Upgraded Services

Expenditure Amount = 159,903

This amount represents WDI's less customer contributions to new and upgraded services. Activity varies each year based on customer requirements. WDI received $82,205 in capital contributions.

3. Upper Wasaga Express Feeder

Expenditure Amount = $149,484

WDI invested in a new express feeder to service new developments in Wasaga Sands. This project was driven by growth, but has added future loop feed capabilities and an increase in available capacity. The total contributions received for this project were $115,144

4. Distribution Station Repurchase

Expenditure Amount = $274,000

This project was driven by growth. MS#2 was constructed in 2008 for a primarily large commercial development, along with some residential customers. During the original planning stage, the station load requirement was sized according to forecasted development specifications provided by the developer and pricing was negotiated with the developer. It was later determined that actual station loading was less than originally forecasted, while at the same time alternate developments in the same geographic area have increased. It was then decided that WDI could redistribute loads on it's MS#2 and MS#4 stations to better allow for feeder capacity optimization. With this in mind the original numbers calculated with the developer were reevaluated.

5. River Road West Road Widening Project

Expenditure Amount = $216,515

This project was municipally driven by the Town of Wasaga Beach to extend approximately 1.5km of line on River Road West. WDI replaced poles and transformers. This project was 50% contributed.

System Renewal:

6. Distribution Station Equipment

Expenditure Amount = $51,785

WDI invested in two new medium voltage vacuum breakers, for feeders 3 and 4 at its MS#3 station. The main driver for replacing these assets was the age and potential for failure. With this replacement WDI has been able to extend the overall life of MS#3.

7. Pole Replacements

Expenditure Amount = $60,656

The work replaces aged poles and conductors based on end of life assets. These projects included the identification of WDI's most critical assets and this work was done prior to WDI's new asset condition assessment as identified within this DSP.

8. Transformer Replacements

Expenditure Amount = $72,999

The work replaces aged transformers based on end of life assets. These projects included the identification of WDI's most critical assets and this work was done prior to WDI's new asset condition assessment as identified within this DSP.

System Service:

There were no material investments made.

General Plant:

9. Service Centre Land – Storage Purchase

Expenditure Amount = $91,245

The investment was made as a parcel of land adjacent to WDI's Service Centre became available for purchase. The purchase has been used to increase WDI's outdoor storage capacity. The investment in 2014 included readying this land for additional storage.

5.4. Appendix D: AESI Acumen Engineered Solutions International - Review Response

www.aesi-inc.com
aesi@aesi-inc.com

August 20, 2015

Paul Trace CET
Wasaga Distribution Inc.
950 River Road West
Wasaga Beach, ON
L9Z 1A2

Dear Reader

Re: Consolidated Distribution System Plan

As part of the filing requirements set out by the Ontario Energy Board (OEB) for Distributor's, Wasaga Distribution Inc. has prepared the attached Consolidated Distribution System Plan. The Plan was prepared in accordance with Good Asset Management Practice, Good Utility Practice and the current Chapter 5 Filing Requirements. Wasaga Distribution Inc. prepared the data and furnished the information contained in the plan.

AESI critiqued this plan and confirms that it addresses the goals and achieves the purpose of the OEB *Chapter 5 Consolidated Distribution System Plan Filing Requirements* dated March 28, 2013.

Sincerely,

AESI Acumen Engineered Solutions International Inc.

775 Main Street E
Suite 1B
Milton, Ontario
Canada L9T 3Z3
P-905.875.2075
F-905.875.2062

1990 Lakeside Pkwy
Suite 250
Tucker, Georgia
USA 30084
P-770.870.1630
F-770.870.1629

5.5. Appendix E: Wasaga Distribution Inc. Strategic Plan

STRATEGIC PLAN

2014

Wasaga Distribution Inc.

950 River Rd. West

Wasaga Beach, Ontario L9Z 1A2

Background and Context

WASAGA DISTRIBUTION INCORPORATED (WDI)

- and its Affiliate -

WASAGA RESOURCE SERVICES INCORPORATED (WRSI)

Conduct the corporate business through a cooperative

Master Service Agreement,

Approved by both entities, January 1st, 2013

Wasaga Distribution Inc. serves the Town of Wasaga Beach, a vibrant community, with an ever growing population, to its borders with electricity. The present population is in excess of 18,500, with a total service area of 61 square kilometers.

The utility presently serves approximately 13,000 customers and has more than 235 kilometers of conductor, both overhead and underground.

The system has more than 1,400 distribution transformers, and nearly 5,000 poles in service, fed from five owned, and one shared distribution stations.

Vision and Mission

Our Vision

- As WDI looks to the future, it will remain fully focused on the needs and priorities of the Community in delivering safe, reliable and efficient electrical power in its service area.
- WDI will continue to build long term value for customers and shareholders alike and places a very strong emphasis on operational excellence and productivity gain.
- WDI will continue its cooperative endeavors with other like-minded LDC's within the CHEC group of companies to realize operating efficiencies and cost savings for customers.

Our Mission

- To provide our customers with excellent products and services in a competitive, safe, reliable and efficient manner, while always recognizing our community and environmental responsibilities.

Present Status

Strengths

- Locally owned, controlled and operated for maximum benefit to customers and Shareholders alike.
- A strong Master Service Agreement (MSA), reviewed annually, between WDI and WRSI that allows the WRSI staff to work effectively and efficiently.
- Strong and effective fiscal management.
- The ability to anticipate and react quickly to constant Legislative and Regulatory changes.
- Through the MSA and WRSI staff's system familiarity, maintains a sound and up-to-date distribution and metering system resulting in minimal outages and WDI's ranking at #2 of 73 LDC's on the Provincial efficiency list (2013.)
- Realization of operating efficiencies and cost savings for customers through membership in the CHEC group of LDC's.

Weaknesses

- Difficulty in effectively communicating our company strengths and accomplishments to our customers and shareholders.

Factors Necessary to Maintain Success

- Customer Focus: Dedication to continuing provision of excellence in all facets of customer service including billing and service enquiries.

- Competence of Staff: Reliance on the MSA for the continued high levels of service provided by the management and service staff of our Affiliate, WRSI.

- Infrastructure Reliability: Reliance on the MSA for the abilities of WRSI to rapidly respond to infrequent distribution system problems and for ongoing monitoring and maintenance of metering systems and other distribution assets.

- Dedication to Supporting Municipal Growth: Continued close collaboration with Municipal Council and Planning Department to ensure that our system integrity can respond adequately to the expected growth in customer base contained in the Municipality's Official Plan.

- Technological Innovation: Continued dedication towards technological innovation.

Strategies for Maintaining Success

- Create sustainable value for our shareholder by promoting core business strengths and pursuing appropriate business opportunities.

- Engaging local municipal, business and residential customers to tailor our programs to their needs and enhance their experience with our utility.

- Keeping abreast of regulatory changes

- Continued engagement with the CHEC group of LDC's

- Continued use of technical innovation to optimize our efficiency.

- Meeting/surpassing CDM requirements in the Province's six year conservation framework for LDC's.

- Regular review of fixed assets/asset management.

- Update and monitor five year capital investment plan.

Glossary of Terms

Abbreviation	Definition
22/04	Electrical Safety Authority Safety Standards
AL.	Aluminum
CAIDI	Customer Average Interruption Duration Index
CHEC	Cornerstone Hydro Electric Concepts
CIS	Customer Information System
COS	Cost of Service
DSC	Distribution System Code
DSP	Distribution System Plan
EB	Energy Board
FIT	Feed In Tariff Program
FTTH	Fibre to the Home
GIS	Geographical Information System
HONI	Hydro One Networks Incorporated
IAS	International Accounting Standard
IESO	Independent Electrical System Operator
IFRS	International Financial Reporting Standard
KM	Kilometer
KV	Kilovolt
MS	Municipal Station
MVA	Megavolt Amps
MTO	Ministry of Transportation
MUL	Maximum Useful Life
OEB	Ontario Energy Board
OMS	Outage Management System
PME	Primary Metering Equipment
REG	Renewable Energy Generation
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory control and data acquisition
TS	Transmission Station
TUL	Typical Useful Life
VLAN	Virtual Local Area Network
WDI	Wasaga Distribution Inc.

Wasaga Distribution Inc.
950 River Rd. West
Wasaga Beach, Ontario, L9Z 1A2