



**The Yukon Electrical Company Limited**  
An **ATCO** Company

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April 30, 2013

Ms. Deana Lemke  
Executive Assistant  
Yukon Utilities Board  
P.O. Box 31728  
Whitehorse, Yukon Y1A 6L3

Dear Ms. Lemke:

Re: Key Performance Indicators

Yukon Electrical is pleased to submit its 2012 Key Performance Indicators Report.

Please contact me at 633-7003, if you require any additional information or clarification.

Yours sincerely,

THE YUKON ELECTRICAL COMPANY LIMITED  
An ATCO Company

Dwight Redden,  
General Manager

DR:cm  
Encl.

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**THE YUKON ELECTRICAL COMPANY LIMITED**  
An *ATCO* Company

Report to the Yukon Utilities Board

2012

Key Performance Indicators

April 30, 2013

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**The Yukon Electrical Company Limited  
Generation Performance**

Plant	2010	CUL Number	Unit Size (kW)	Engine Hours	Actual Generation (kWh)	Total Available Generation (kWh)	Unit Availability	Capacity Factor	Operating Factor
Beaver Creek	Unit # 1	CUL303	250	4,239	795,540	1,059,750	78.39%	46.20%	48.39%
	Unit # 2	CUL378	300	4,923	1,040,392	1,476,900	89.52%	44.22%	56.20%
	Unit # 3	CUL354	400	630	134,063	252,000	99.68%	0.04%	0.07%
Carmacks	Unit # 1	CUL310	1,600	17	18,683	27,200	98.73%	0.01%	0.19%
Dest. Bay	Unit # 1	CUL 467	400	2,372	597,859	948,800	99.79%	17.10%	27.08%
	Unit # 2	CUL372	300	3,288	539,912	986,400	87.88%	23.38%	37.53%
	Unit # 3	CUL230	220	3,285	586,528	722,700	99.61%	30.55%	37.50%
Haines Jtn.	Unit # 1	CUL416	1,750	18	13,181	31,500	100.00%	0.01%	0.01%
Old Crow	Unit # 1	CUL414	600	2,737	789,600	1,642,200	99.79%	15.05%	31.24%
	Unit # 2	CUL355	400	6,026	1,252,000	2,410,400	96.85%	36.89%	68.79%
	Unit # 3	CUL384	170	848	132,150	144,160	99.93%	0.09%	9.68%
Pelly	Unit # 1	CUL375	275	28	2,110	7,700	99.82%	0.09%	0.32%
	Unit # 2	CUL470	600	54	9,260	32,400	99.85%	0.18%	0.62%
	Unit # 3	CUL405	300	54	5,780	16,200	99.83%	0.22%	0.62%
Ross River	Unit # 1	CUL265	1,000	23	8,391	23,000	99.57%	0.10%	0.26%
Stewart	Unit # 1	CUL348	150	0	0	0	0.00%	0.00%	0.00%
	Unit # 2	CUL357	100	0	0	0	0.00%	0.00%	0.00%
	Unit # 3	CUL186	150	57	2,220	8,550	98.54%	0.17%	0.65%
Teslin	Unit # 1	CUL378	1,500	16	6,448	24,000	99.87%	0.05%	0.18%
Watson Lake (See Note)	Unit # 1	CUL422	800	6133.0	3,868,800	4,906,400	97.08%	56.71%	69.82%
	Unit # 2	CUL257	800	4287.0	2,584,800	3,429,600	94.60%	38.88%	48.80%
	Unit # 3	CUL352	1,000	4023.0	3,280,800	4,023,000	71.92%	51.93%	45.79%
	Unit # 4	CUL258	1,500	73.3	84,000	109,950	100.00%	0.64%	0.83%
	Unit # 5	CUL 466	600	3695.0	1,627,200	2,217,000	97.73%	31.59%	42.06%
	Unit # 6	CUL423	800	6114.0	3,968,400	4,891,200	99.07%	57.00%	69.03%
Swift River (See Note)	Unit #1	CUL460	80	65	1,699	5,200	100.00%	0.24%	0.72%
	Unit #2	CUL413	80	8,902	247,000	712,160	99.28%	34.74%	99.44%
Fish Lake	Unit #1	CUL109	700			1,020,480			0.00%
	Unit #2	CUL108	600			2,367,240			0.00%

**The following factors were measured**

<b>Unit Size:</b>	This is the generator capacity in kW.
<b>Engine Hours:</b>	This is the number of hours the generator was on-line.
<b>Actual Generation:</b>	This is the amount of real power (energy) that the generating unit produced for the year in kW.h
<b>Total Available Generation:</b>	This is the amount of real power (energy) that the generating unit could have produced based on the hours the generator was on-line during the year.
<b>Unit Availability:</b>	This is defined as the number of hours the generator is available for production divided by the hours in the period. This factor is displayed in percentile and is useful in monitoring the overall reliability of the machine without regard to whether it was available when it was most needed.
<b>Capacity Factor:</b>	This is defined as the actual energy produced divided by the amount of energy the unit had the potential to produce for the year. Displayed as a percentile, it is useful as an indication of the utilization of the generator especially in terms of providing energy (kW.h).
<b>Operating Factor:</b>	This is defined as the hours the generator was on-line divided by the total hours in the year. Displayed as a percentile, this factor is useful in monitoring how much the machine was used without regard to its defined benefit such as energy production (kW.h) or capacity factor.

**The Yukon Electrical Company Limited**  
**2013 - 2015 General Rate Application**  
**Summary of Customers, Energy Sales and Revenue**

Line No.	Description	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012
1	<b>Residential</b>					
2	Customers (average during year)	12,715	12,925	13,169	13,482	13,857
3	Sales in MWh	128,302	130,569	131,273	141,696	150,350
4	MWh sales per customer	10.1	10.1	10.0	10.5	10.9
5	Revenue (\$000s)	16,671	16,307	16,892	18,928	21,127
6	Cents per KWh	12.99	12.49	12.87	13.36	14.05
7	<b>Commercial</b>					
8	Customers (average during year)	2,600	2,627	2,692	2,774	2,841
9	Sales in MWh	141,704	142,076	145,776	150,591	159,562
10	MWh sales per customer	54.5	54.1	54.2	54.3	56.2
11	Revenue (\$000s)	20,818	20,368	21,621	23,374	\$26,057
12	Cents per KWh	14.69	14.34	14.83	15.52	16.33
13	<b>Street lights</b>					
14	Sales in MWh	3,545	3,477	3,647	3,598	3,771
15	Revenue (\$000s)	776	764	848	880	963
16	Cents per KWh	21.89	21.97	23.25	24.46	25.53
17	<b>Private lights</b>					
18	Sales in MWh	631	592	594	581	560
19	Revenue (\$000s)	139	131	138	144	147
20	Cents per KWh	22.03	22.13	23.23	24.71	26.20
21	<b>Total Company - Retail - Primary</b>					
22	Customers	15,315	15,552	13,169	13,482	13,857
23	Sales in MWh	274,182	276,714	281,290	296,466	314,244
24	Revenue (\$000s)	38,404	37,570	39,499	43,326	48,293
25	Cents/KWh	14.01	13.58	14.04	14.61	15.37
26	<b>Secondary Sales</b>					
27	Customers (average during year)	22	21	21	14	2
28	Sales in MWh	18,053	16,843	10,153	552	1,993
29	MWh sales per customer	820.6	802	483	39	997
30	Revenue (\$000s)	1,389	1,092	665	41	164.1
31	Cents per KWh	7.69	6.48	6.55	7.43	8.23
32	<b>Wholesale Sales</b>					
33	Customers (average during year)	2	2	2	2	2
34	Sales in MWh	412	360	365	427	338
35	MWh sales per customer	206	180	183	214	169
36	Revenue (\$000s)	41	37	38	38	28
37	Cents per KWh	9.95	10.28	10.41	8.90	8.30
38	<b>Total Company</b>					
39	Customers	15,339	15,575	15,884	16,272	16,702
40	Sales in MWh	292,647	293,917	291,808	297,445	316,575
41	Revenue (\$000s)	39,834	38,699	40,202	43,405	48,486
42	Cents/KWh	13.61	13.17	13.78	14.59	15.32
43	Retail Revenues	39,834	38,699	40,202	43,405	48,486
44	<b>YEC Revenue Shortfall (Rider J)</b>	4,990	4,026	4,353	2,479	1,437
45	<b>TOTAL REVENUES</b>	44,824	42,725	44,555	45,884	49,923

**The Yukon Electrical Company Limited  
2013 - 2015 General Rate Application  
Schedule of Energy Losses  
(MW.h )**

Line No.	Description	Actual 2008	Actual 2009	Actual 2010	Actual 2011	Actual 2012
1	<b>Sales and Losses</b>					
2	Total energy sales - MWh	292,647	293,917	291,808	297,445	316,575
3	Losses and company used - MWh	18,001	18,216	17,917	18,219	20,380
4	Losses -%	6.2%	6.2%	6.1%	6.1%	6.4%
5	Total generation and purchases (MWh)	<u>310,648</u>	<u>312,133</u>	<u>309,725</u>	<u>315,664</u>	<u>336,955</u>
6	<b>Sources - MWh</b>					
7	Hydro generation	6,551	8,094	3,388	3,638	3,388
8	Hydro grid standby diesel generation	159	213	72	446	25
9	Diesel generation	22,065	19,753	19,767	20,487	21,285
10	Purchases	281,873	284,073	286,498	291,093	312,257
11		<u>310,648</u>	<u>312,133</u>	<u>309,725</u>	<u>315,664</u>	<u>336,955</u>
12	<b>Sources - %</b>					
13	Hydro generation	2.1%	2.6%	1.1%	1.2%	1.0%
14	Diesel generation	7.4%	6.4%	6.4%	6.6%	6.3%
15	Purchases	90.5%	91.0%	92.5%	92.2%	92.7%
		<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

## Reliability Performance

Yukon Electrical tracks the following reliability indices as defined below:

**SAIFI** refers to the System Average Interruption Frequency Index. This index is defined as the average number of interruptions per customer served per year. SAIFI is calculated by taking the total number of customers affected by interruptions divided by the total number of customers served.

**SAIDI** refers to the System Average Interruption Duration Index. This index is defined as the system average interruption duration for customers served per year. SAIDI is calculated by taking the total customer hours of interruptions divided by total customers served.

**CAIDI** refers to the Customer Average Interruption Duration Index. This index is defined as the customer average interruption duration for customers interrupted during the year. CAIDI is calculated by taking the total customer hours of interruptions divided by total customer interruptions.

**IOR** refers to the Index of Reliability which defines the annual customer-hours that service is available measured as a percentage.

Yukon Electrical's 2012 results (including and excluding loss of supply from Yukon Energy) are as follows:

	Including Loss of Supply From Yukon Energy	Excluding Loss of Supply From Yukon Energy
SAIFI	2.60	2.15
SAIDI	3.15	2.97
CAIDI	1.21	1.38
IOR	99.963%	99.966%

## Health, Safety and Environment Performance

Yukon Electrical's 2012 Health, Safety, and Environment Performance Measures are as follows:

Worker lost time frequency	1.61
Worker lost time severity	3.21
Contractor lost time incidents	4
Preventable vehicle incident frequency	10
Number of reportable releases	3



## Financial Performance

The table below notes a number of highlights from our 2012 Annual Filing as well as a number of other 2012 Financial Performance indicators.

Regulated Return on Equity (ROE)	10.35%
Net Rate Base (\$000's)	\$60,003
Average Inventory (\$000's)	\$2,018
Capital Additions (\$000's)	\$17,116
Customers per Employee	283
Sales (MW.h) per Employee	5,366
Total labour dollars per Customer	\$374
Ave. Consumption per Res. Customer (MW.h)	10.85
Ave. Consumption per Comm. Customer (MW.h)	56.16