

ATCO Electric

YUKON

April 30, 2019

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

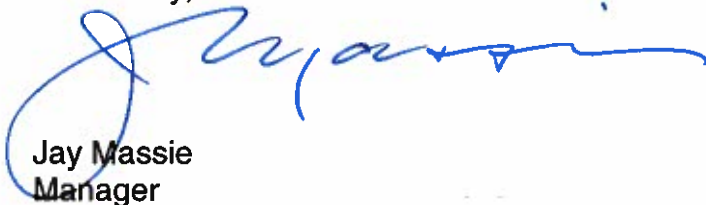
Dear Ms. Lemke:

Re: ATCO Electric Yukon 2018 Key Performance Indicators

Please find attached the 2018 Key Performance Indicators for ATCO Electric Yukon.

If you have any questions, please contact the undersigned at (867) 633-7080.

Yours truly,



Jay Massie
Manager

Encl.



Report to the Yukon Utilities Board

2018

Key Performance Indicators

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**ATCO Electric Yukon
2018 Generation Performance**

Plant	2018	CUL Number	Unit Size (kW)	Engine Hours	Actual Generation (kWh)	Total Available Generation (kWh)	Unit Availability	Capacity Factor	Operating Factor
Beaver Creek	Unit #1	CUL585	285	3,127	561,637	891,167	95.87%	63.02%	35.70%
	Unit #2	CUL547	365	3,798	869,740	1,386,270	75.00%	62.74%	43.36%
	Unit #3	CUL354	400	1,745	486,266	698,000	99.84%	69.67%	19.92%
Carmacks	Unit #1	CUL310	1,600	106	52,727	168,960	99.45%	31.21%	1.21%
Destruction Bay	Unit #1	CUL467	600	370	91,044	222,000	99.70%	41.01%	4.22%
	Unit #2	CUL592	400	5,707	1,359,444	2,282,680	95.63%	59.55%	65.14%
	Unit #3	CUL584	312	2,683	472,521	837,221	87.83%	56.44%	30.63%
Haines Junction	Unit #1	CUL416	1,750	32	21,877	56,000	99.41%	39.07%	0.37%
Old Crow	Unit #1	CUL414	600	2,223	779,935	1,333,800	99.60%	58.47%	25.38%
	Unit #2	CUL355	400	3,377	647,775	1,350,800	99.38%	47.95%	38.55%
	Unit #3	CUL591	680	775	100,579	526,728	99.85%	19.10%	8.84%
	Unit #4	CUL586	450	3,542	1,010,203	1,593,900	95.51%	63.38%	40.43%
Pelly Crossing	Unit #1	CUL375	275	4	90	1,018	96.50%	8.85%	0.04%
	Unit #2	CUL470	600	14	2,720	8,460	96.50%	32.15%	0.16%
	Unit #3	CUL405	300	7	450	2,130	96.50%	21.13%	0.08%
Ross River	Unit #1	CUL265	1,000	68	18,300	68,300	96.11%	26.79%	0.78%
Stewart Crossing	Unit #3	CUL186	150	197	6,834	29,550	100.00%	23.13%	2.25%
Teslin	Unit #1	CUL376	1,500	20	9,956	30,150	75.34%	33.02%	0.23%
Watson Lake	Unit #1	CUL422	800	4,700	3,112,800	3,760,000	99.58%	82.79%	53.65%
	Unit #2	CUL595	895	4,990	3,156,000	4,466,050	99.54%	70.67%	56.96%
	Unit #3	CUL352	1,000	2,079	1,687,200	2,079,000	99.81%	81.15%	23.73%
	Unit #4	CUL545	1,450	3,858	3,823,200	5,594,100	58.56%	68.34%	44.04%
	Unit #5	CUL466	650	3,504	1,640,400	2,277,600	99.68%	72.02%	40.00%
	Unit #6	CUL423	800	3,279	2,067,600	2,623,200	99.70%	78.82%	37.43%
Swift River	Unit #1	CUL596	100	3,833	139,274	383,300	99.65%	36.34%	43.76%
	Unit #2	CUL544	88	4,944	130,181	435,072	99.54%	29.92%	56.44%
Fish Lake	Unit #1	CUL542	815	8,645	5,364,042	7,045,471	99.95%	76.13%	98.68%
	Unit #2	CUL108	600	194	94,080	116,550	2.22%	80.72%	2.22%

The following factors were measured

Unit Size:	This is the generator capacity in kW.
Engine Hours:	This is the number of hours the generator was on-line.
Actual Generation:	This is the amount of real power (energy) that the generating unit produced for the year in kW.h
Total Available Generation:	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.
Unit Availability:	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.
Capacity Factor:	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).
Operating Factor:	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.

ATCO Electric Yukon
Summary of Customers, Energy Sales and Revenue

Line No.	Description	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018
1	Residential							
2	Customers (average during year)	13,857	14,194	14,409	14,631	14,858	15,114	15,430
3	Sales in MWh	150,350	148,780	147,133	148,605	151,351	165,654	167,596
4	MWh sales per customer	10.9	10.5	10.2	10.2	10.2	11.0	10.9
5	Revenue (\$000s)	21,611	21,070	20,629	20,839	21,452	23,262	23,491
6	Cents per KWh	14.37	14.16	14.01	14.02	14.17	14.04	14.02
7	Commercial							
8	Customers (average during year)	2,841	2,918	2,938	2,988	3,000	3,036	3,095
9	Sales in MWh	159,562	159,322	154,709	155,346	157,662	165,924	168,285
10	MWh sales per customer	56.2	54.6	52.7	52.0	52.6	54.6	54.4
11	Revenue (\$000s)	26,583	27,305	25,509	25,534	25,798	27,102	27,353
12	Cents per KWh	16.66	16.51	16.49	16.44	16.36	16.33	16.25
13	Street lights							
14	Sales in MWh	3,771	3,719	3,765	3,886	3,923	3,942	3,951
15	Revenue (\$000s)	976	961	962	992	997	1,009	1,021
16	Cents per KWh	25.87	25.84	25.54	25.52	25.42	25.59	25.85
17	Sentinel lights							
18	Sales in MWh	560	551	544	519	496	495	486
19	Revenue (\$000s)	149	145	142	138	133	132	130
20	Cents per KWh	26.54	26.33	26.05	26.58	26.71	26.66	26.76
21	Total Company - Retail - Primary							
22	Customers	16,698	17,112	17,347	17,619	17,858	18,150	18,525
23	Sales in MWh	314,243	312,372	306,272	308,356	313,432	336,016	340,318
24	Revenue (\$000s)	49,319	48,481	47,241	47,503	48,380	51,504	51,995
25	Cents/KWh	15.52	15.52	15.42	15.41	15.44	15.33	15.28
26	Secondary Sales							
27	Customers (average during year)	15	1	2	3	3	5	5
28	Sales in MWh	1,993	3,959	5,415	7,030	4,835	8,385	258
29	MWh sales per customer	132.9	1,979.5	2,707.5	2,812.0	1,511.0	1,705.4	51.6
30	Revenue (\$000s)	164	336	474	532	296	553	21
31	Cents per KWh	8.23	8.49	8.75	7.57	6.13	6.59	7.99
32	Wholesale Sales							
33	Customers (average during year)	2	2	2	2	2	2	2
34	Sales in MWh	338	361	494	430	548	584	636
35	MWh sales per customer	169.0	180.7	247.0	215.0	273.8	292.1	317.9
36	Revenue (\$000s)	28	30	41	36	45	48	53
37	Cents per KWh	8.30	8.30	8.30	8.30	8.30	8.30	8.30
38	Total Company							
39	Customers	16,715	17,116	17,351	17,624	17,863	18,157	18,532
40	Sales in MWh	316,574	316,692	312,181	315,816	318,815	344,985	341,212
41	Revenue (\$000s)	49,511	48,847	47,756	48,071	48,722	52,106	52,068
42	Cents/KWh	15.47	15.42	15.30	15.22	15.28	15.10	15.26
43	Retail Revenues	49,511	48,847	47,756	48,071	48,722	52,106	52,068
44	YEC Revenue Shortfall (Rider J + Rider R1)	1,437	5,829	6,259	5,266	5,273	6,487	8,680
	Rider R		1,634	3,672	4,139	3,792	5,349	5,363
45	TOTAL REVENUES	50,948	56,310	57,687	57,476	57,787	63,942	66,111

Reliability Performance

ATCO Electric Yukon 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.

ATCO Electric Yukon's 2018 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	2.846	2.253
SAIDI	4.742	4.263
CAIDI	1.67	1.892
IOR	99.946%	99.951%

Health, Safety and Environment Performance

ATCO Electric Yukon's 2018 Health, Safety and the Environment Performance measures as follows:

Worker Lost Time Frequency	0
Worker Lost Time Severity	0
Contractor Lost Time Incidents	0
Preventable Vehicle Incident Frequency	0
Number of Reportable Releases	1

Financial Performance

The table below notes a number of highlights from ATCO Electric Yukon's 2018 Approved 2016-2017 Compliance Filing as well as a number of other 2018 Financial Performance indicators.

Regulated Return on Equity (ROE)	12.64%
Net Rate Base (\$000's)	\$105,377
Average Inventory (\$000's)	\$2,386
Capital Additions (\$000's)	\$11,159
Customers per Employee	290
Sales (MW.h) per Employee	5,335
Total labour expense per Customer	\$341
Ave. Consumption per Res. Customer (MW.h)	10.86
Ave. Consumption per Comm. Customer (MW.h)	54.37