

ATCO Electric

YUKON

April 23, 2020

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

Dear Ms. Lemke:

Re: ATCO Electric Yukon 2019 Key Performance Indicators

Please find attached the 2019 Key performance Indicators for ATCO Electric Yukon.

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

Yours truly,



Bill Cullen PLT
Manager
ATCO Electric Yukon

Encl.



Report to the Yukon Utilities Board

2019

Key Performance Indicators

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**ATCO Electric Yukon
2019 Generation Performance**

Plant	2019	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	4,513	767,621	1,286,063	99.18%	59.69%	51.51%
	Unit #2	CUL547	365	2,300	552,969	839,391	96.84%	65.88%	26.25%
	Unit #3	CUL354	400	2,097	538,366	838,720	99.62%	64.19%	23.94%
Carmacks	Unit #1	CUL310	1,600	100	53,421	160,640	99.18%	33.26%	1.15%
Destruction Bay	Unit #1	CUL467	600	947	247,962	568,200	99.83%	43.64%	10.81%
	Unit #2	CUL592	400	3,982	1,015,896	1,592,840	95.43%	63.78%	45.46%
	Unit #3	CUL584	315	3,910	708,654	1,231,587	99.29%	57.54%	44.63%
Haines Junction	Unit #1	CUL416	1,750	162	102,330	284,200	100.00%	36.01%	1.85%
Old Crow	Unit #1	CUL414	600	3,379	1,180,903	2,027,400	99.38%	58.25%	38.57%
	Unit #2	CUL355	400	2,973	564,129	1,189,200	89.87%	47.44%	33.94%
	Unit #3	CUL591	680	251	79,367	170,680	99.95%	46.50%	2.87%
	Unit #4	CUL586	450	2,787	756,875	1,254,150	96.75%	60.35%	31.82%
Pelly Crossing	Unit #1	CUL375	275	3	0	825	100.00%	0.00%	0.03%
	Unit #2	CUL470	600	8	30	4,680	100.00%	0.64%	0.09%
	Unit #3	CUL405	300	9	20	2,790	92.32%	0.72%	0.11%
Ross River	Unit #1	CUL265	1,000	14	3,182	13,700	100.00%	23.23%	0.16%
Stewart Crossing	Unit #3	CUL186	150	6	183	855	100.00%	21.40%	0.07%
Teslin	Unit #1	CUL376	1,500	71	25,523	107,100	100.00%	23.83%	0.82%
Watson Lake	Unit #1	CUL422	800	3,522	2,382,000	2,817,600	99.36%	84.54%	40.21%
	Unit #2	CUL595	895	1,902	1,270,800	1,702,290	99.65%	74.65%	21.71%
	Unit #3	CUL352	1,000	3,045	2,508,000	3,045,000	68.76%	82.36%	34.76%
	Unit #4	CUL545	1,450	4,385	4,315,200	6,358,250	90.57%	67.87%	50.06%
	Unit #5	CUL466	650	5,314	2,529,600	3,454,100	96.29%	73.23%	60.66%
	Unit #6	CUL423	800	2,727	1,765,200	2,181,600	99.50%	80.91%	31.13%
Swift River	Unit #1	CUL596	100	2,285	79,055	228,500	97.67%	34.60%	26.08%
	Unit #2	CUL544	88	6,341	185,597	558,008	96.92%	33.26%	72.39%
Fish Lake	Unit #1	CUL542	815	8,624	4,963,518	7,028,356	99.45%	70.62%	98.44%
	Unit #2	CUL108	600	4	1,830	2,400	5.00%	76.25%	0.05%

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 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019
1	Residential							
2	Customers (average during year)	14,194	14,409	14,631	14,858	15,114	15,430	15,775
3	Sales in MWh	148,780	147,133	148,605	151,351	165,654	167,596	166,455
4	MWh sales per customer	10.5	10.2	10.2	10.2	11.0	10.9	10.6
5	Revenue (\$000s)	21,070	20,629	20,839	21,452	23,262	23,491	23,506
6	Cents per KWh	14.16	14.01	14.02	14.17	14.04	14.02	14.12
7	Commercial							
8	Customers (average during year)	2,918	2,938	2,988	3,000	3,036	3,095	3,145
9	Sales in MWh	159,322	154,709	155,346	157,662	165,924	168,285	168,680
10	MWh sales per customer	54.6	52.7	52.0	52.6	54.6	54.4	53.6
11	Revenue (\$000s)	27,305	25,509	25,534	25,798	27,102	27,353	27,589
12	Cents per KWh	16.51	16.49	16.44	16.36	16.33	16.25	16.36
13	Street lights							
14	Sales in MWh	3,719	3,765	3,886	3,923	3,942	3,951	3,876
15	Revenue (\$000s)	961	962	992	997	1,009	1,021	1,014
16	Cents per KWh	25.84	25.54	25.52	25.42	25.59	25.85	26.17
17	Sentinel lights							
18	Sales in MWh	551	544	519	496	495	486	480
19	Revenue (\$000s)	145	142	138	133	132	130	128
20	Cents per KWh	26.33	26.05	26.58	26.71	26.66	26.76	26.59
21	Total Company - Retail - Primary							
22	Customers	17,112	17,347	17,619	17,858	18,150	18,525	18,919
23	Sales in MWh	312,372	306,272	308,356	313,432	336,016	340,318	339,491
24	Revenue (\$000s)	48,481	47,241	47,503	48,380	51,504	51,995	52,237
25	Cents/KWh	15.52	15.42	15.41	15.44	15.33	15.28	15.39
26	Secondary Sales							
27	Customers (average during year)	1	2	3	3	5	5	5
28	Sales in MWh	3,959	5,415	7,030	4,835	8,385	258	1
29	MWh sales per customer	1,979.5	2,707.5	2,812.0	1,511.0	1,705.4	51.6	0.1
30	Revenue (\$000s)	336	474	532	296	553	21	0
31	Cents per KWh	8.49	8.75	7.57	6.13	6.59	7.99	8.37
32	Wholesale Sales							
33	Customers (average during year)	2	2	2	2	2	2	2
34	Sales in MWh	361	494	430	548	584	636	693
35	MWh sales per customer	180.7	247.0	215.0	273.8	292.1	317.9	346.3
36	Revenue (\$000s)	30	41	36	45	48	53	57
37	Cents per KWh	8.30	8.30	8.30	8.30	8.30	8.30	8.30
38	Total Company							
39	Customers	17,116	17,351	17,624	17,863	18,157	18,532	18,926
40	Sales in MWh	316,692	312,181	315,816	318,815	344,985	341,212	340,184
41	Revenue (\$000s)	48,847	47,756	48,071	48,722	52,106	52,068	52,295
42	Cents/KWh	15.42	15.30	15.22	15.28	15.10	15.26	15.37
43	Retail Revenues	48,847	47,756	48,071	48,722	52,106	52,068	52,295
44	YEC Revenue Shortfall (Rider J + Rider R1)	5,829	6,259	5,266	5,273	6,487	8,680	8,920
	Rider R	1,634	3,672	4,139	3,792	5,349	5,363	5,259
45	TOTAL REVENUES	56,310	57,687	57,476	57,787	63,942	66,111	66,474

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 2019 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	3.81	2.222
SAIDI	6.726	3.807
CAIDI	1.765	1.713
IOR	99.9%	99.9%

Health, Safety and Environment Performance

ATCO Electric Yukon's 2019 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	3

Financial Performance

The table below notes a number of highlights from ATCO Electric Yukon's 2019 Approved 2016-2017 Compliance Filing as well as a number of other 2019 Financial Performance indicators.

Regulated Return on Equity (ROE)	13.01%
Net Rate Base (\$000's)	\$106,527
Average Inventory (\$000's)	\$2,458
Capital Additions (\$000's)	\$9,982
Customers per Employee	296
Sales (MW.h) per Employee	5,319
Total labour expense per Customer	\$334
Ave. Consumption per Res. Customer (MW.h)	10.55
Ave. Consumption per Comm. Customer (MW.h)	53.64