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20 April, 2018

Paula Tupou
Electricity Commission
Tu'atakilangi
Nuku'alofa

Dear Paula

PROGRESS REPORT for FEBRUARY & MARCH 2018

1. In Conforming to the reporting obligations set forth in Paragraph 5 of Schedule 13 of the 2015 Regulatory Addendum, Tonga Power Limited qua Concessionaire do now provide a **Progress Report** in respect to the month of **February & March 2018**. The March 2018 data may not be presented for your analysis as TPL resources were redirected to the Restoration work after the Cyclone GITA aftermath.
2. SYSTEM LOSS

System Losses for the month of February 2018 were as follows: -

MONTH	TONGA	TBU	VV	HP	'EUA
Feb 2018	7.81%	8.01%	4.93%	6.33%	5.78%

System Losses for February 2018 includes Parasitic losses of 2.59% and Line Losses of 5.23%. The Combined figure is below the Reset Target for 2017-18 of 11.0%. Appendix 1 hereto comprises Graphs going back 12 months to show results for Tonga as a whole and each of the four separate island grids. The decline in system losses is largely attributed to the significant decrease in reported billed data. However, it is worth noting that the energy generated from the Australian funded generators given after the cyclone is not included in the calculation.

3. DIESEL GENERATION FUEL EFFICIENCY

The Regulatory Addendum requires a weighted average for Tonga as a whole of not less than 4 kWh/litre and Tonga Power Limited has exceeded this target for the month of February 2018. The actual result is 4.52 kWh/litre, which has increased from 4.43kWh last month (note this figure includes energy generated from Renewables).

Appendix 2 hereto comprises bar graphs going back 12 months to show results for Tonga as a whole and each of the four separate island grids.

4. SYSTEM RELIABILITY

There are no service standards for reliability imposed upon Tonga Power in the 2015 Regulatory Addendum. However for 2017-18, the Concessionaire has set itself the following TARGETS, namely :-

SAIDI ¹	-	1,080 minutes per annum
CAIDI ²	-	870 minutes per annum
SAIFI ³	-	14

Appendix 3 hereto gives details of TPL's present and recent past performance for system reliability.

5. FAULTS/OUTAGES

The table below shows a comparison between 2017-2018 and 2016-2017 for Tonga as a whole. The decrease in the February data is largely attributed to the decrease in reported faults because most faults were reported under the TC GITA Recovery Work.

Month	2016-17	2017-18 Faults	2017-18 Outages
July	364	257	5
August	376	335	5
September	312	261	3
October	338	245	3
November	346	309	5
December	363	306	5
January	317	327	5
February	581	240	6
March	406	NA	NA
April	344		
May	604		
June	268		
TOTAL	4,619	2,280	37


¹ SAIDI: System Average duration of Interruption per Connected Customer.

² CAIDI: Average total duration of Interruption per Interrupted Customer.

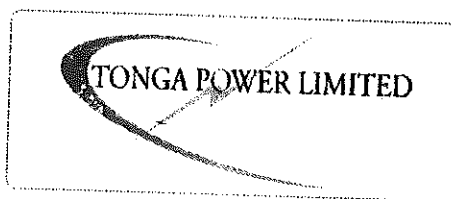
³ SAIFI: Average number of Interruptions per Customer.

Appendix 4 gives details of each planned outage and unplanned fault events.

Yours faithfully,



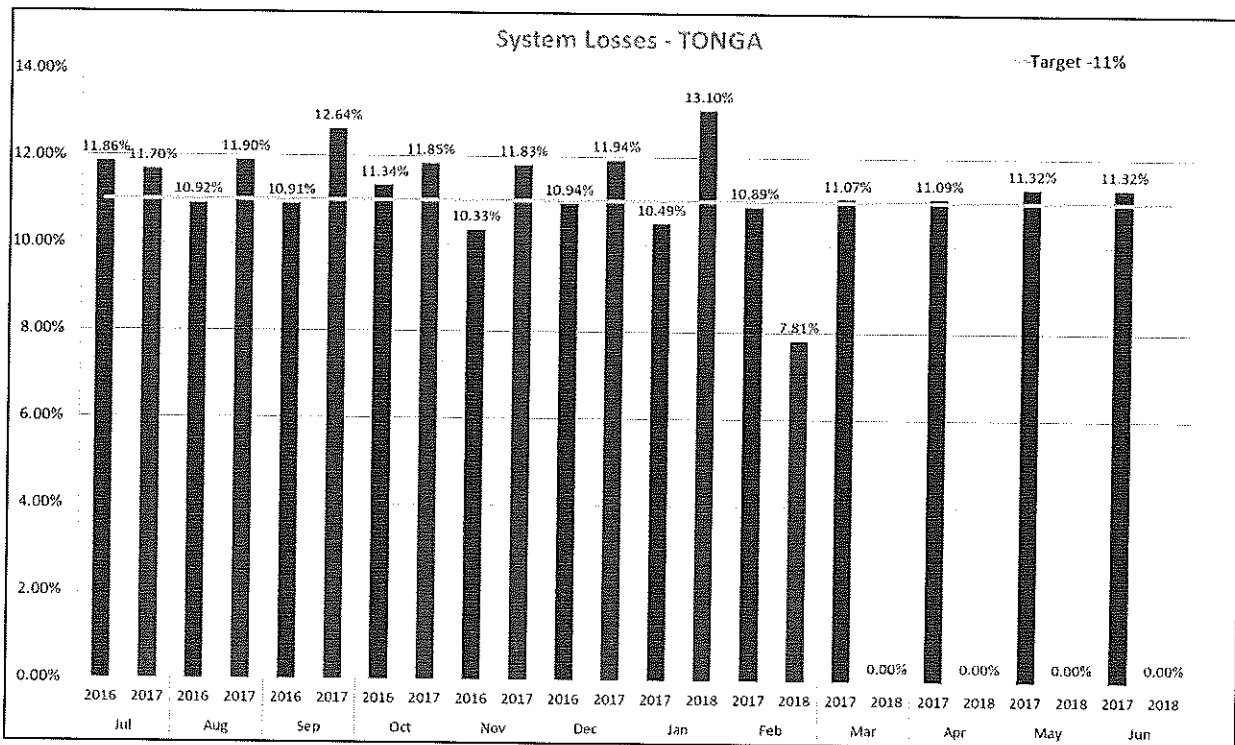
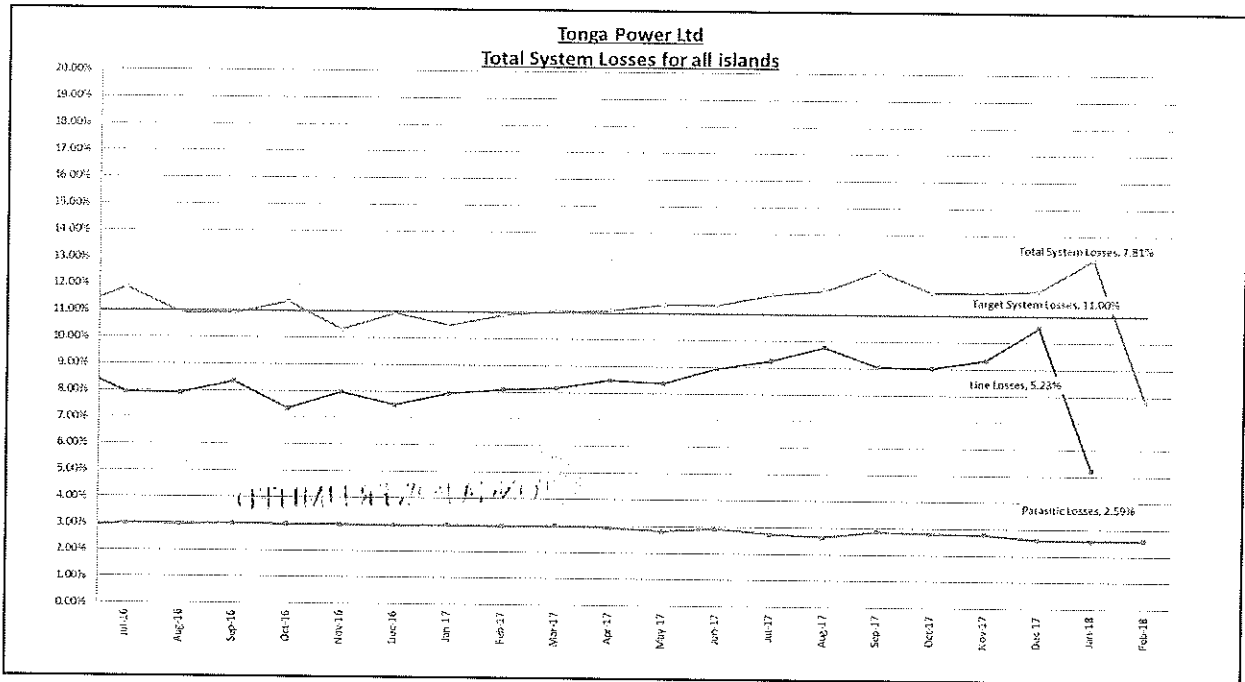
Ms. Sosefina S Maileseni
Risk and Compliance Manager
Tonga Power Limited

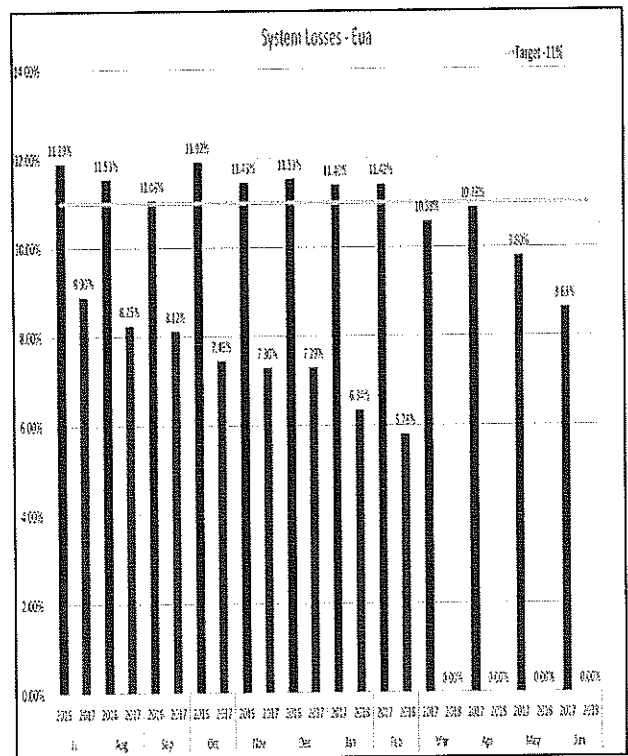
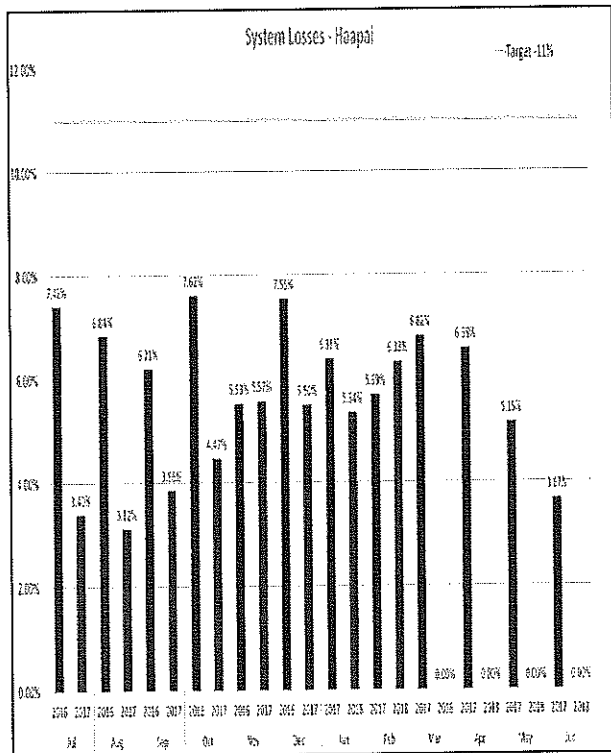
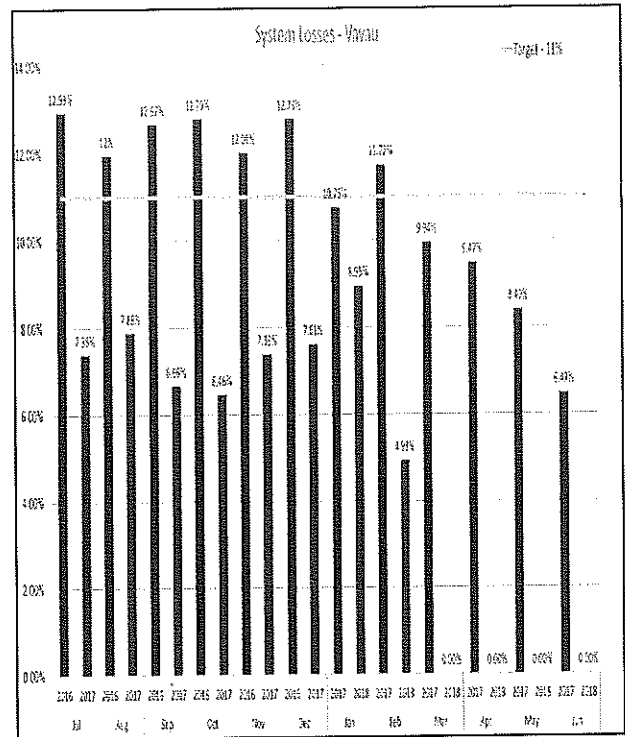
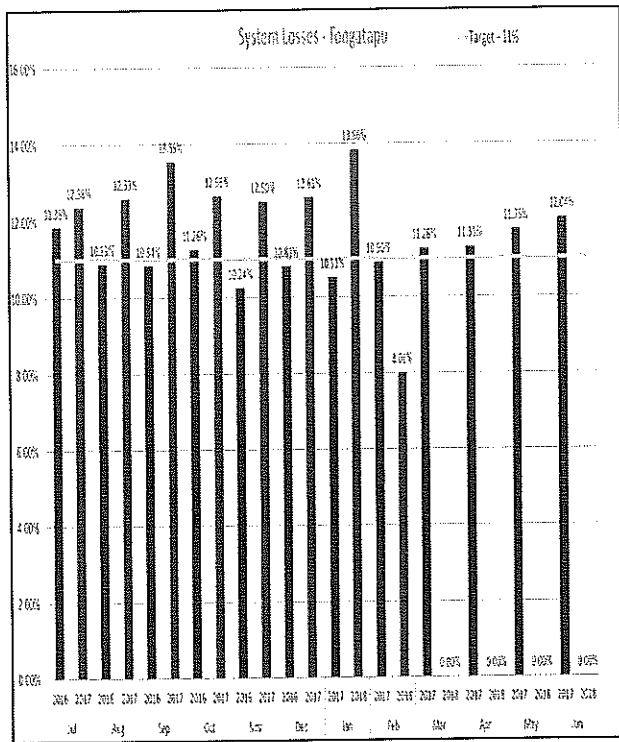


Cc: Mr. Robert Matthews, CEO of TPL

APPENDIX - 1:

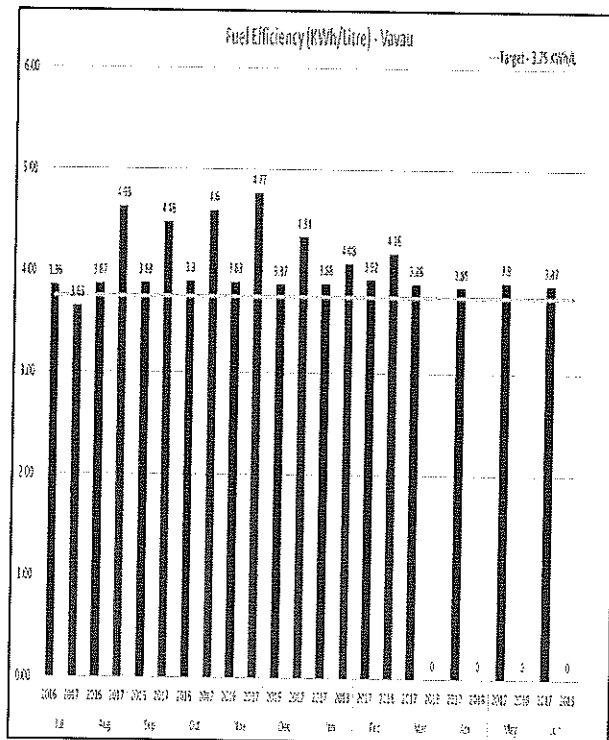
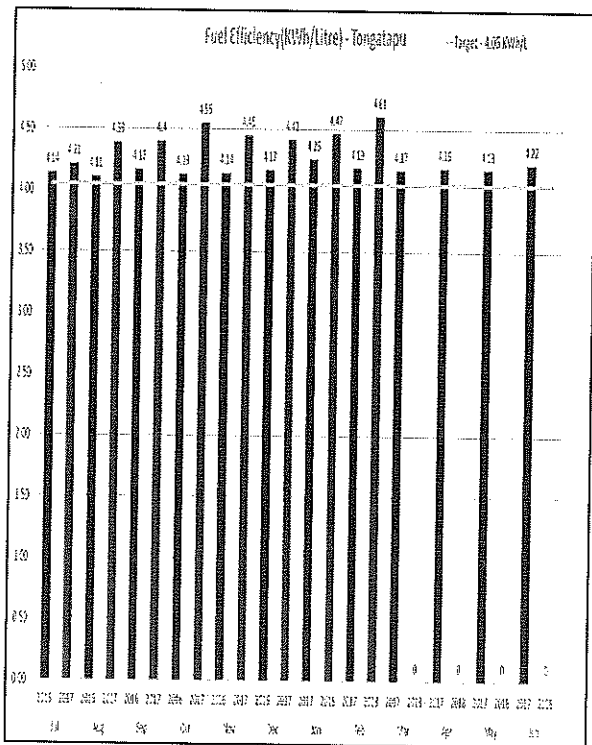
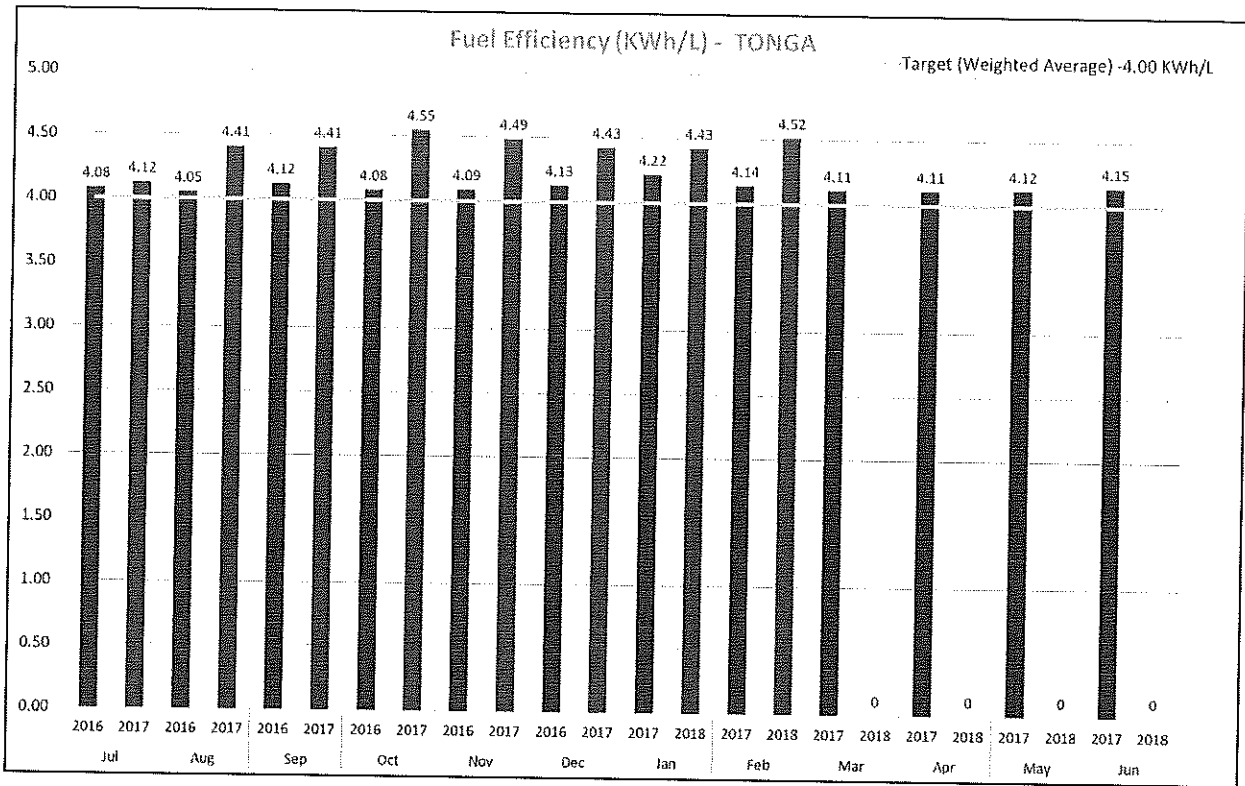
SYSTEM LOSS GRAPHS

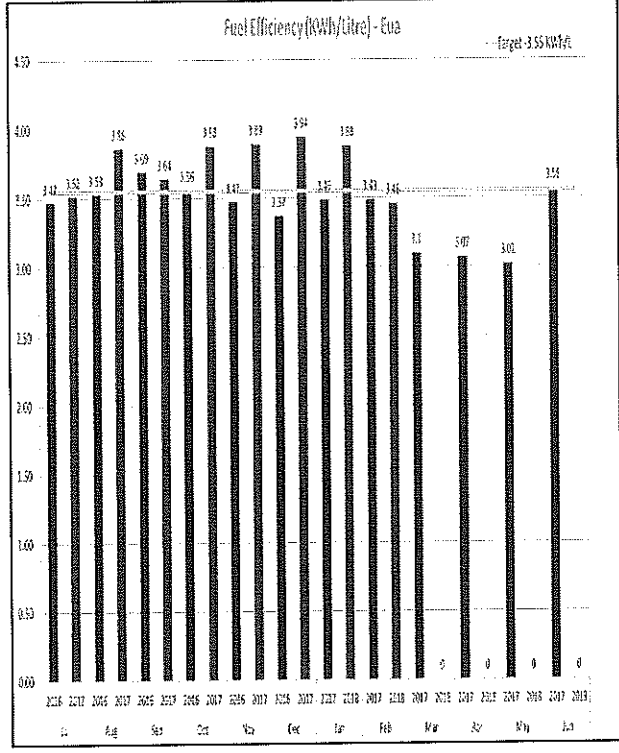
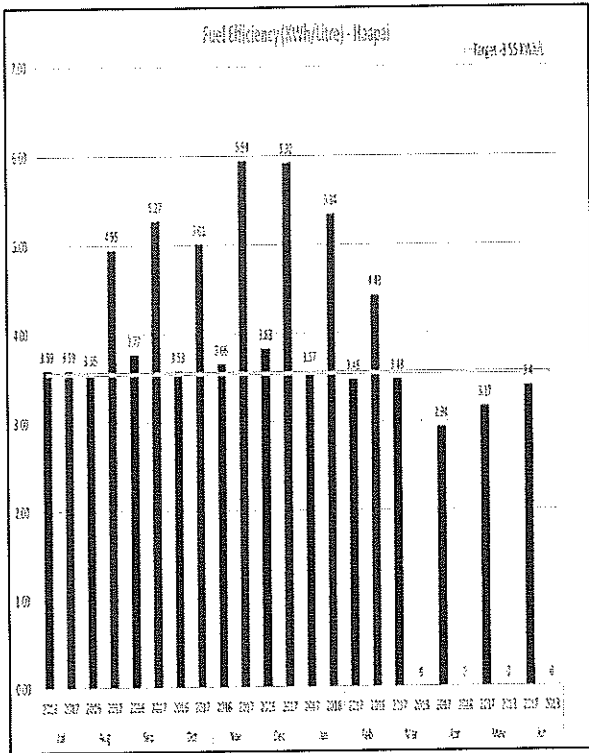




APPENDIX - 2:

DIESEL GENERATION FUEL EFFICIENCY





APPENDIX – 3:

SYSTEM RELIABILITY

Reliability Measures - Tongatapu														
SAIDI Monthly Performance (Minutes)					CAIDI Monthly Performance (Minutes)					SAIFI Monthly Performance				
Month	2014/15	2015/16	2016/17	2017/18	Month	2014/15	2015/16	2016/17	2017/18	Month	2014/15	2015/16	2016/17	2017/18
Jul	171.37	17.28	291.01	76.37	Jul	106.45	12.78	356.49	100.51	Jul	1.61	1.35	0.787	0.741
Aug	161.75	151.91	49.71	70.55	Aug	118.076	74.97	40.03	147.74	Aug	1.37	2.027	1.242	0.44
Sep	167.93	98.08	23.68	45.14	Sep	95.58	44.54	130.3	90.26	Sep	1.76	2.202	0.158	0.469
Oct	83.2	54.7	53.59	66.69	Oct	74.58	22.74	141.27	123.83	Oct	1.12	2.405	0.345	0.507
Nov	123.66	15.55	203.1	43.3	Nov	190.511	31.481	135.97	28.87	Nov	0.649	2.367	1.44	1.47
Dec	28.04	9.56	159.32	148.9	Dec	43.97	165.29	1104.21	62.47	Dec	0.638	0.058	0.17	2.358
Jan	190.24	66.96	345.87	33.49	Jan	36.24	22.85	331.74	115.66	Jan	5.25	2.931	1.004	0.236
Feb	77.52	100.53	61.56	87.43	Feb	42.54	36.4	78.038	62.23	Feb	1.82	2.763	0.72	1.389
Mar	10.12	626.23	185.63		Mar	33.29	420.09	224.07		Mar	0.304	1.323	0.78	
Apr	26.04	44.28	17.11		Apr	35.09	76.32	25.48		Apr	0.743	0.58	0.632	
May	51.1	47.39	151.75		May	34.75	257.8	80.29		May	1.47	0.141	1.813	
Jun	34.35	76.53	18.4		Jun	169.56	80.8	114.72		Jun	0.203	0.629	0.143	
Total	1125.32	1309	1560.73	571.87	Total	980.637	1246.061	2762.608	731.57	Total	16.937	18.776	9.234	7.61

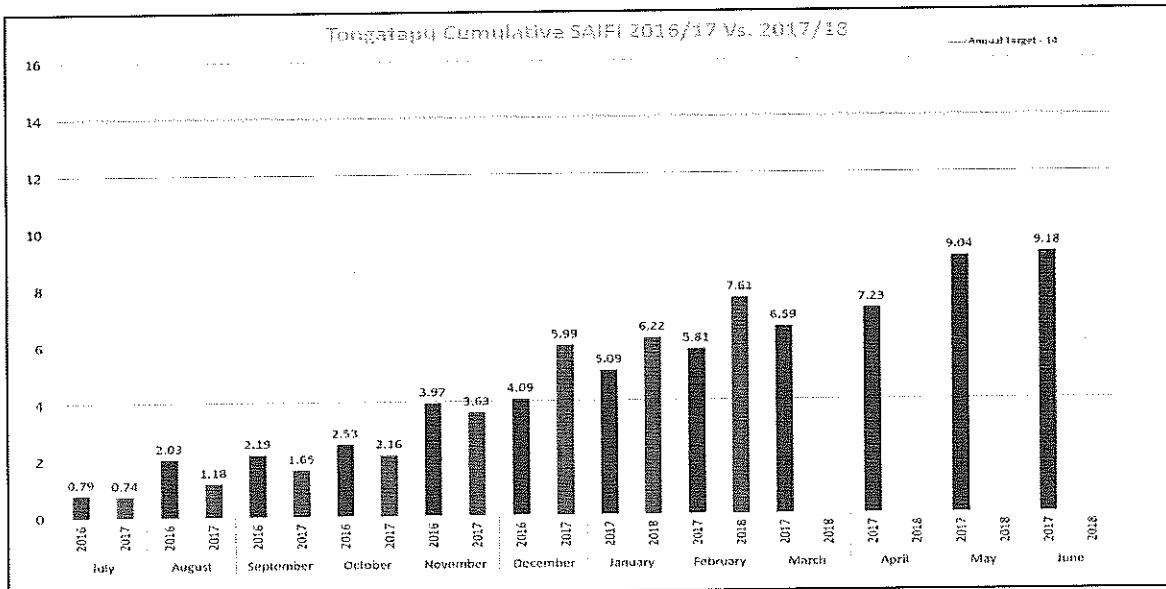
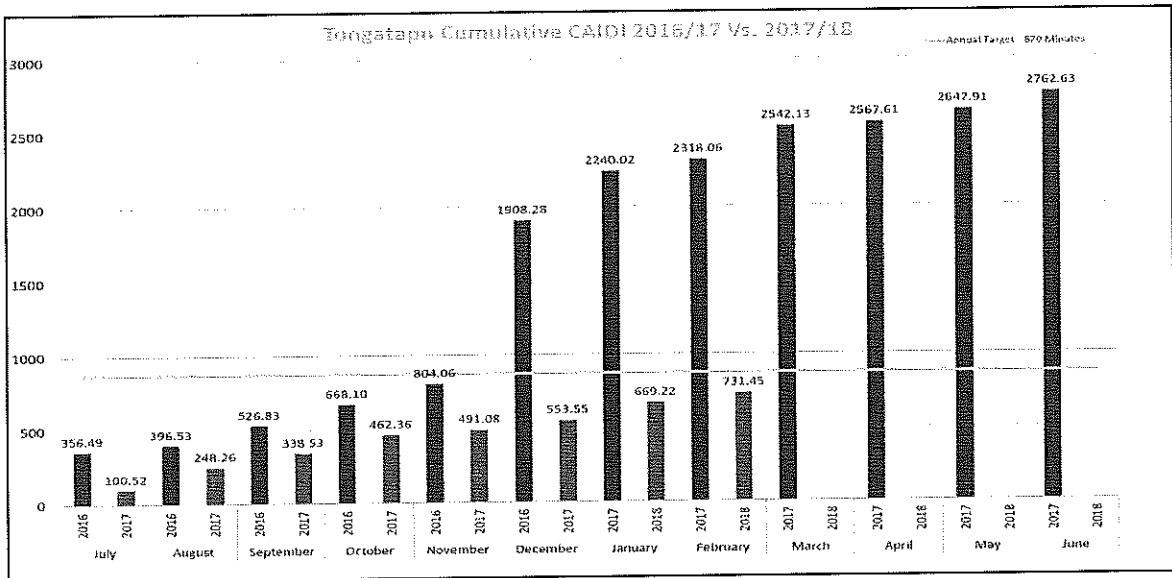
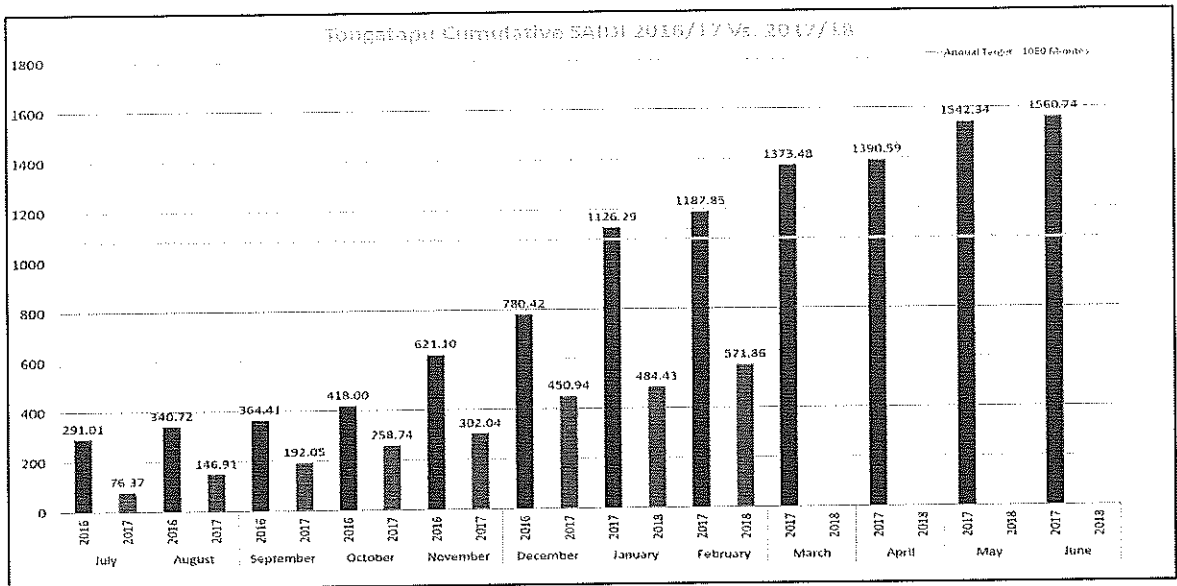
Note: March 2018 data are not available.

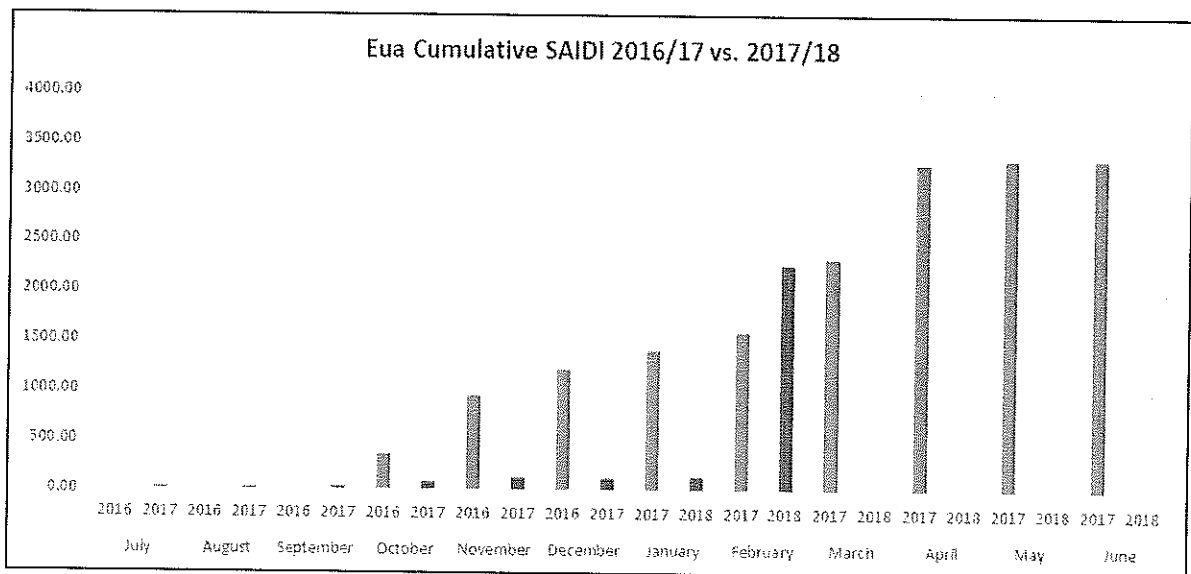
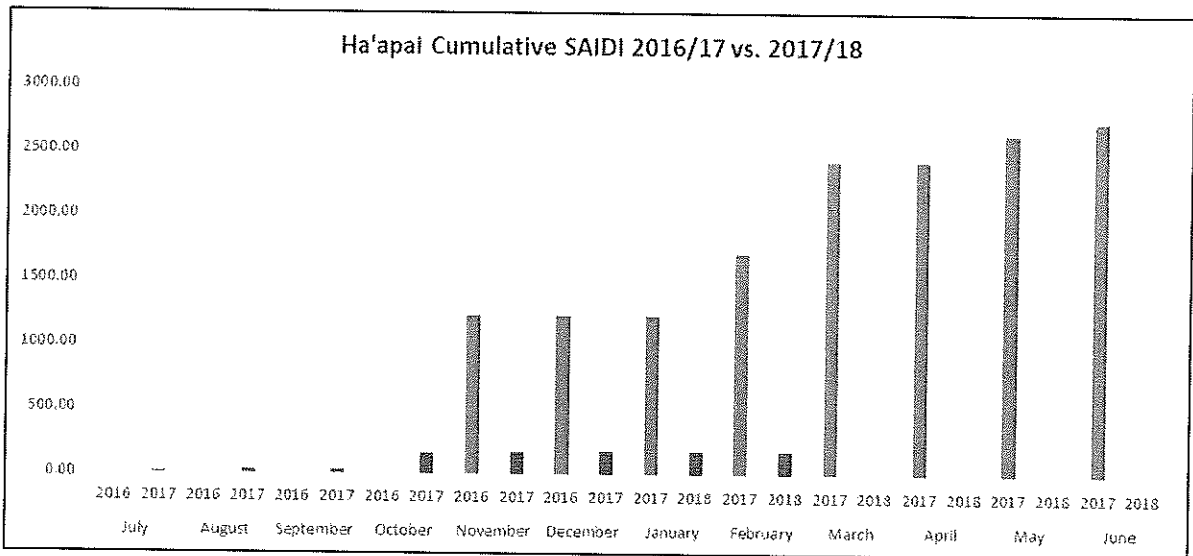
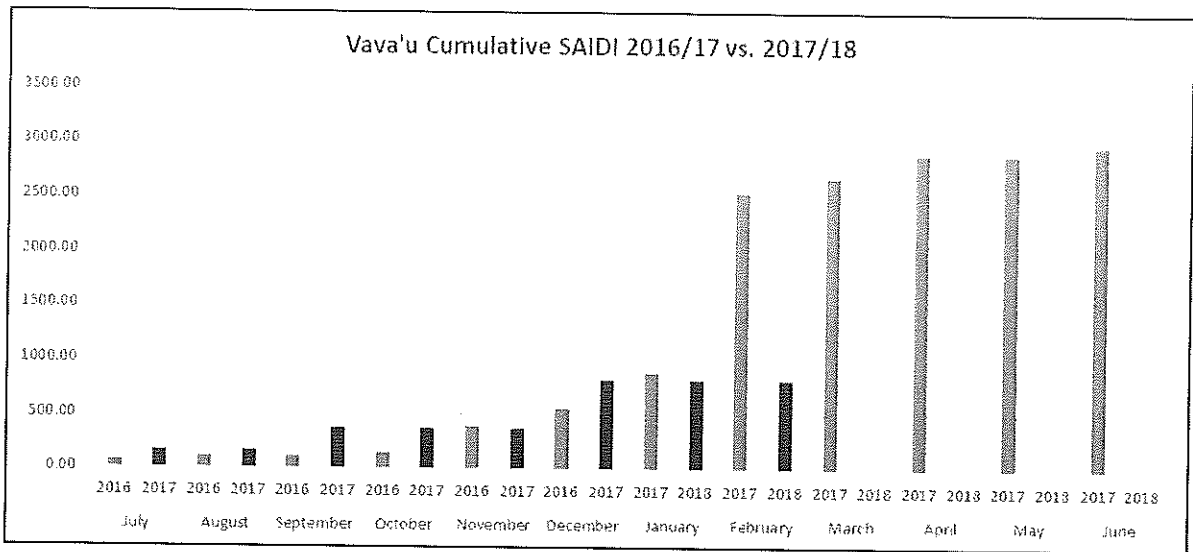
Major HV Fault for March 2018

None

Major HV Faults for February 2018

Report Date	No. of Customers Off	Fault Description	Repair Comment
12/02/2018	15,432	Power shut down	
26/02/2018	4,106	power off	check while Sione Havea switch on Feeder
26/02/2018	600	power off	switch on recloser at Maui
10/02/2018	500	SHUT DOWN	Vaha'akolo Rd. Kapeta to Tofoa.
12/02/2018	500	TREE ON LINE	TREE ON HV LINE SO DISCONNECT FOR THE SAFETY OF POWER LINE [Siatoutai to Ha'atafu]
07/02/2018	110	PLAN SHUT DOWN	shut down power line in nukuleka to install hv pole
12/02/2018	100	power off	HV LINE BROKEN DUE TO TREE FALL ON HV LINE SO DISCONNECT FOR THE SAFETY OF POWER LINE
08/02/2018	50	power off	BLOWN DDO FUSE ON HV LINE 2X6 DDO SO REPLACE IT WITH 2X6 DDO
19/02/2018	36	power off	materials: link 100A x 6 test after: 242V, 241V, 242V
19/02/2018	21	power off	test after: 242V





APPENDIX - 4: DETAILS OF PLANNED OUTAGES AND UNPLANNED FAULT EVENTS

March 2018 - None

Fault Events Comparison 2016/17 vs. 2017/18																							YTD Total	
Planned/Unplanned Outage Events	Jul-16	Jul-17	Aug-16	Aug-17	Sep-16	Sep-17	Oct-16	Oct-17	Nov-16	Nov-17	Dec-16	Dec-17	Jan-17	Jan-18	Feb-17	Feb-18	Mar-17	Mar-18	Apr-17	Apr-18	May-17	May-18	2016/17	2017/18
Generator problem	0	0	1	0	0	0	0	0	1	1	0	2	0	0	0	1	1		1	2	0		6	4
HV Lines	9	5	16	13	12	14	9	14	12	24	18	18	8	15	41	11	21		10	24	11		191	114
HV/LV Transformer	11	7	11	11	5	13	2	6	15	13	7	7	15	13	22	5	17		12	18	5		140	75
HV Pole	3	1	4	4	0	0	11	1	2	1	0	1	0	2	0	1	0		7	3	0		30	11
LV Lines	79	58	69	59	50	63	60	41	57	48	72	52	70	40	146	40	76		52	182	45		938	401
Service lines	96	78	96	112	99	85	89	85	104	141	98	117	75	121	200	114	164		137	216	96		1470	853
Customer premises	142	110	157	134	124	93	142	96	128	82	164	108	146	136	166	71	126		119	160	110		1684	830
Street Lights	21	0	19	0	20	0	22	0	25	0	0	0	0	0	0	0	0		0	0	0		107	0
Meter	3	3	3	7	2	4	3	5	2	5	4	3	3	5	6	3	1		6	6	1		40	35
Total	364	262	376	340	312	272	338	248	346	315	363	308	317	332	581	246	496	0	344	0	611	0	4636	2323

