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17 June 2013

Lord Dalgety
Electricity Commission
Tu'atakilangi
Nuku'alofa

Dear Lord Dalgety

Compliance Reporting for the Month of June 2013

In accordance with the reporting requirements of the Electricity Concession Contract and in response to your request for additional information as specified in the suggested MOU dated May, 2012, TPL submits the following reports for the month of June, 2013.

1. System Loss Report – May, 2013
2. Reliability Measures – May, 2013
3. Monthly Outage Events – May, 2013

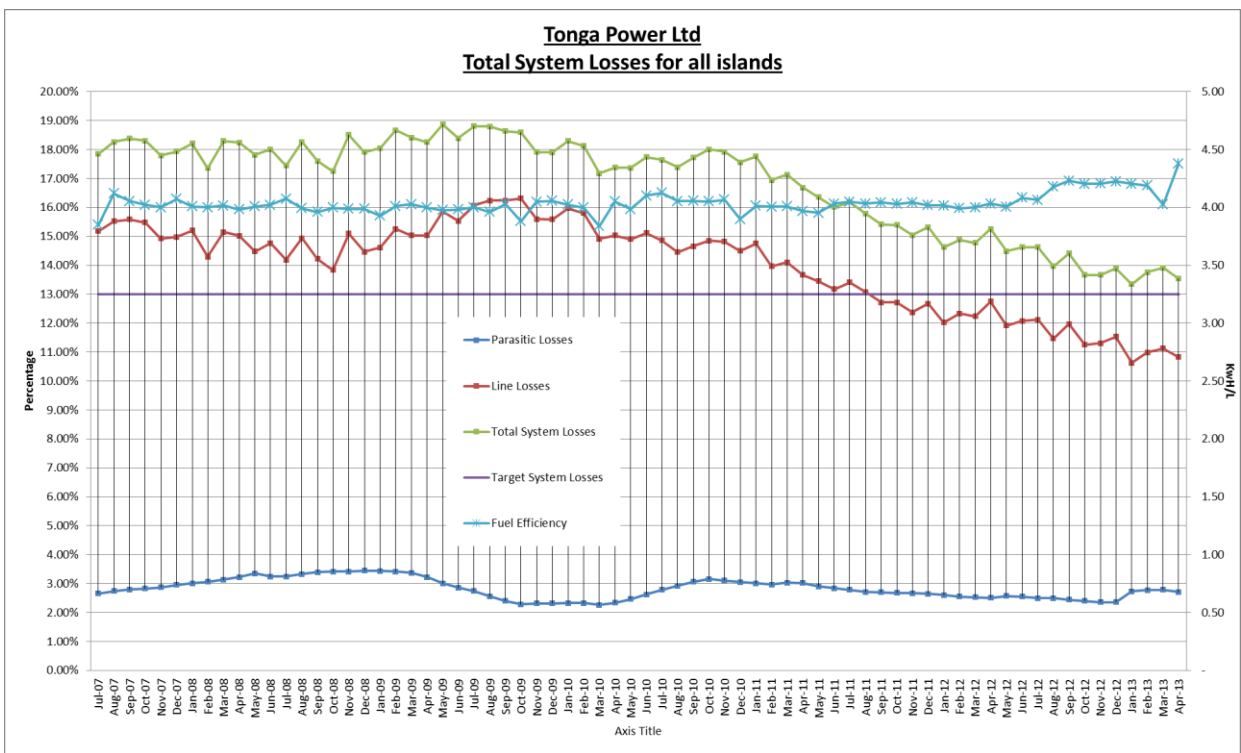
The above report items are described in detail below.

1. System Loss Report

The following graph illustrates that the past 12 months moving average (smoothed) of systems losses for all four islands for the period July 2007 – April 2013. The graph indicates that the total losses for all four islands have slightly decreased from 13.91% (March, 2013) to 13.54% (April, 2013). However, on a real time basis (disregarding 12 months moving average), total systems losses have increased from 12.01% (March, 2013) to 16.54% (April, 2013) as all islands' real time losses have significantly increased except in Eua. Whilst Tongatapu 12 months moving average losses have significantly decreased from 13.78% (March, 2013) to 13.46% (April, 2013), Vava'u, Ha'apai and 'Eua moving average losses have slightly increased.

Fuel efficiency for all four islands has increased from 4.03 Kwh/litre (March, 2013) to 4.38 Kwh/litre (April, 2013). As can be seen from the graphs below, the improved efficiency is more a catch up from last month's reading.

Please refer to the attached excel file 'System Loss Report May 2013' for further details.



2. Reliability Measures

SAIDI minutes (measuring average total duration of interruption per connected customer) for the month of May, 2013 have significantly decreased from 339.33 (April, 2013) to 122.31 (May, 2013) minutes (see the table below).

Reliability Measures												
SAIDI Monthly Performance				CAIDI Monthly Performance				SAIFI Monthly Performance				
Month	2010/11	2011/12	2012/13	Month	2010/11	2011/12	2012/13	Month	2010/11	2011/12	2012/13	
Jul	7.74	4.74	638.62	Jul	60.7	143.09	90.44	Jul	0.13	0.03	7.06	
Aug	935.29	4.51	57.31	Aug	443.33	161.45	148.47	Aug	2.11	0.03	0.39	
Sep	933.55	59.19	5.66	Sep	477.69	649.6	92.61	Sep	1.95	0.09	0.06	
Oct	9.35	253.89	16.05	Oct	64.33	243.63	11.23	Oct	0.15	1.04	1.43	
Nov	4.35	25.49	150.73	Nov	123.68	69.34	62.32	Nov	0.04	0.37	2.42	
Dec	20.42	115.19	74.28	Dec	19.48	358.97	33.78	Dec	1.05	0.32	2.2	
Jan	984.8	622.62	177.39	Jan	889.45	280.26	114.76	Jan	1.11	2.22	1.55	
Feb	162.32	3010.76	282.85	Feb	131.96	412.1	363.77	Feb	1.23	7.31	0.78	
Mar	296.37	23.32	134.9	Mar	219.53	55.81	62.17	Mar	1.35	0.42	2.17	
Apr	157.89	336.9	339.33	Apr	63.18	219.97	190.62	Apr	2.5	1.53	1.78	
May	8.22	294.55	122.31	May	222.5	98.59	31.29	May	0.04	2.99	3.91	
Jun	62.22	14.72		Jun	387.96	66.45		Jun	0.16	0.22		

The major HV faults contributed to the SAIDI minutes for the May, 2013 were described below:

Report_Date	Fault_Description	Repair_Comment	No_of_Customers_Off
9/05/2013	Power off	Problem from the feeder generators	15300
20/05/2013	The whole of Tongatapu shut down	Generation problems	15300
21/05/2013	Power off to the whole of Tongatapu	Generation problems	15300
3/05/2013	Drop feeder 1	FEEDER 1 DROP DOWN	5021
9/05/2013	Close feeder 1	Open feeder 1 from the generation.	5021
9/05/2013	Drop feeder 1	Feeder 1 drop so they fix power line	1489
3/05/2013	Broken conductor	They just connect the conductor than resaq the line and than they connect power line. Power shut down from Pea to Vaotu'u and Tokomololo to Makapaeo.	600
9/05/2013	Burnt DDO fuse stick	Spark so they replace fuse stick on Inline fuse for Red phase [off from Taufaahau rd to Pelehake at Malapo]	300

CAIDI minutes (measuring average total duration of interruption per interrupted customer) for the month of April 2013 have also decreased significantly from 190.62 minutes (April, 2013) to 31.29 (May, 2013) minutes.

SAIFI (measuring average number of interruptions per customer); however, has however, increased from 1.78 (April, 2013) to 3.91 (May, 2013). Refer to the table above.

3. Monthly Outage Events

Unplanned Outage Events	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13
Generator problem	0	2	0	2	2	2	3	1	3	2	8
HV Lines	8	12	15	11	11	12	9	42	5	9	14
HV Transformer	10	9	12	6	2	4	6	16	7	3	10
HV Pole	2	0	1	0	4	2	1	1	2	4	4
LV Lines	37	22	28	34	34	12	61	69	68	35	39
Service lines	238	238	340	255	291	301	235	354	569	328	443
Customer premises	173	190	209	192	244	201	234	221	360	220	284
Street Lights	27	26	15	15	221	217	224	155	36	34	23
Meter	3	8	7	6	1	5	3	6	9	4	3
Total	498	507	627	521	810	756	776	865	1059	639	828

There were total of 828 unplanned fault events for the month of May, 2013 affecting 59,754 customers. As per the table above, the number of fault events has increased from 639 events in April, 2013 to 828 events in May, 2013. The faults were mostly constitutes of customer (284 faults) and service lines (443 faults). In May, 2013, both service line and customer premises faults have increased due to adverse weather conditions. Most of the customer services faults include fuses at the service line tap off point for a premise. Street lights faults have decreased slightly.

Should you have any queries with the information provided, please do not hesitate to contact me.

Yours Faithfully,
Ajith Fernando
Risk & Compliance Manager
Tonga Power Limited

Attachments:

- System Loss Report May 2013
- Reliability Measures May 2013
- Faults Events May 2013