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27 July 2013

Lord Dalgety Electricity Commission Tu'atakilangi Nuku'alofa

Dear Lord Dalgety

Compliance Reporting for the Month of July 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 July, 2013.

- 1. System Loss Report June, 2013
- 2. Reliability Measures June, 2013
- 3. Monthly Outage Events June, 2013
- 4. Capex Update 2012/13
- 5. RAV Update 2012/13
- 6. Capex Expenditure Proposal 2013/14
- 7. Fuel Tariff Review Proposal

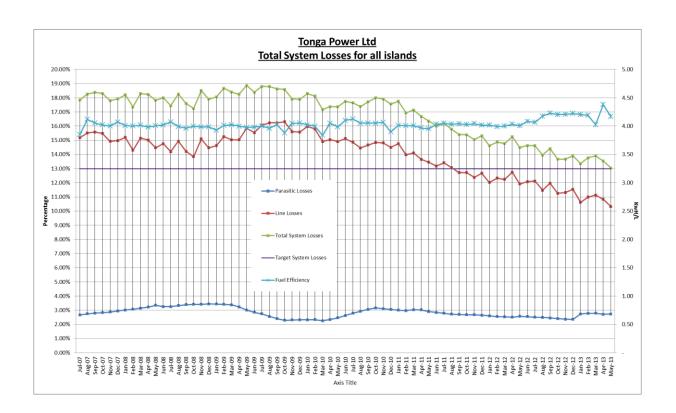
The above report items are described in detail below.

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 – May 2013. The graph indicates that the total losses for all four islands have slightly decreased from 13.54% (April, 2013) to 13.05% (May, 2013). However, on a real time basis (disregarding 12 months moving average), total systems losses have decreased from 16.54% (April, 2013) to 3.66% (May, 2013) for all four islands. This is mainly due to significant decrease in real time losses in Tangatapu and Vava'u whilst in Ha'apai and 'Eua real time losses have slightly increased. Whilst Tongatapu 12 months moving average losses have slightly increased from 12.46% (April, 2013) to 12.94% (May, 2013), Vava'u, Ha'apai and 'Eua moving average losses have slightly decreased.

Fuel efficiency for all four islands has decreased from 4.38 Kwh/litre (April, 2013) to 4.17 Kwh/litre (May, 2013).

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



2. Reliability Measures

SAIDI minutes (measuring average total duration of interruption per connected customer) for the month of June, 2013 have significantly decreased from 122.31 (May, 2013) to 2.36 (June, 2013) minutes (see the table below).

Reliabilit	y Measures	5									
SAIDI Monthly Performance			CAIDI Mo	onthly Perf	ormance		SAIFI Mo	formance	!		
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	2.36	Jun	387.96	66.45	71.86	Jun	0.16	0.22	0.03

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

Report_Date 🔻	Fault_Description	Repair_Comment 💌	No_of_Customers_Off 🚽
01/06/2013	HV Lines burnt and pole broken	Power shut down at 'UMUSI - HOUMAKELIKAO due to HV lines burnt causing a broken pole. Needed to replace broken pole.	30
27/06/2013	power off	Partly off due to fuse on transformer was blown	25
01/06/2013	power off	Power off due to HV transformer fuse blown	20
18/06/2013	power off	Power off due to blown fuse HV so they replace it with	20
27/06/2013	power off	Power off due to fuse blown phase blue loose from transformer	19
05/06/2013	partly off	Materials; HV fuse link 15A x 2	10
05/06/2013	partly off	Power off due to HV fuse link was blown	10

CAIDI minutes (measuring average total duration of interruption per interrupted customer) for the month of June 2013 however have increased from 31.29 minutes (May, 2013) to 71.86 (June, 2013) minutes.

SAIFI (measuring average number of interruptions per customer) have also decreased from 3.91 (May, 2013) to 0.03 (June, 2013). Refer to the table above.

3. Monthly Outage Events

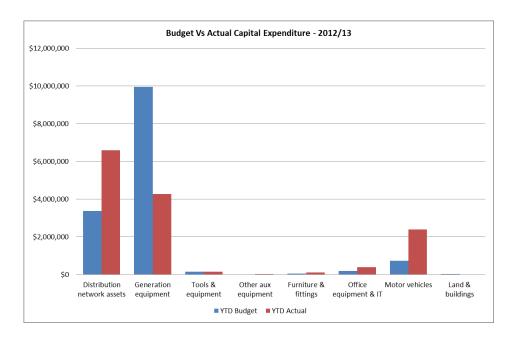
Unplanned Outage Events	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
Generator problem	0	2	0	2	2	2	3	1	3	2	8	0
HV Lines	8	12	15	11	11	12	9	42	5	9	14	4
HV Transformer	10	9	12	6	2	4	6	16	7	3	10	5
HV Pole	2	0	1	0	4	2	1	1	2	4	4	2
LV Lines	37	22	28	34	34	12	61	69	68	35	39	48
Service lines	238	238	340	255	291	301	235	354	569	328	443	268
Customer premises	173	190	209	192	244	201	234	221	360	220	284	228
Street Lights	27	26	15	15	221	217	224	155	36	34	23	29
Meter	3	8	7	6	1	5	3	6	9	4	3	3
Total	498	507	627	521	810	756	776	865	1059	639	828	587

There were total of 587 unplanned fault events for the month of June, 2013 affecting 582 customers. As per the table above, the number of fault events has significantly decreased from 828 events in May, 2013 to 587 events in June, 2013. The faults were mostly constitutes of customer premises (228 faults) and service lines (268 faults). In June, 2013, both service line and customer premises faults have decreased due to better weather conditions. Most of the customer premises faults include fuses at the service line tap off point for a premise. Street lights faults have increased slightly.

4. Capex Update

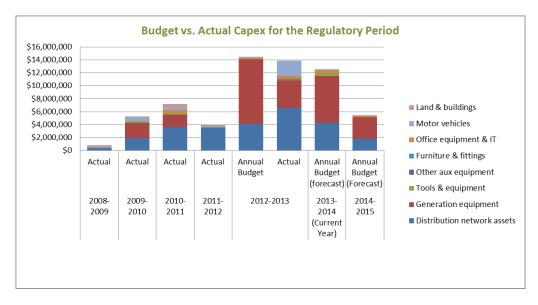
The table and the graph below show the capital expenditure for all the four quarters and the complete year 2012/13. It can be noticed that generation budget have not yet realised in actual terms. The new generator (2.88MW MAK Generator No. 8) installation project has incurred only \$4.2 million to date. The balance of \$5.6 million expenditure is yet to be incurred in the next financial year 2013/14.

		2012-2013 (Current Year)																
Description	7 Year Budget (A)	Annual Budget (B)	Budget Variance (%) (A) vs. (B)	Q1 Budget	Q1 Actual	Q1 Variance	Q2 Budget	Q2 Actual	Q2 Variance	Q3 Budget	Q3 Actual	Q3 Variance	Q4 Budget	Q4 Actual	Q4 Variance	YTD Budget	YTD Actual	YTD Variance
Distribution network assets	\$2,933,190	\$3,366,158	14.76%	\$511,957	\$505,270	\$6,687	\$785,492	\$1,240,465	-\$454,972	\$740,199	\$1,987,212	-\$1,247,014	\$1,328,510	\$2,858,761	-\$1,530,251	\$3,366,158	\$6,591,707	-\$3,225,549
Generation equipment	\$10,652,921	\$9,953,179	-6.57%	\$5,698,098	\$0	\$5,698,098	\$1,645,599	\$0	\$1,645,599	\$2,488,295	\$2,074,258	\$414,037	\$121,187	\$2,193,998	-\$2,072,811	\$9,953,179	\$4,268,256	\$5,684,923
Tools & equipment	\$4,000	\$142,000	3450.00%	\$100,071	\$646	\$99,425	\$13,976	\$5,715	\$8,261	\$35,500	\$36,005	-\$505	-\$7,547	\$105,251	-\$112,799	\$142,000	\$147,617	-\$5,617
Other aux equipment	\$55,859	\$0	0.00%	\$0	\$0	\$0	\$0	\$2,282	-\$2,282	\$0	\$2,282	-\$2,282	\$0	\$2,282	-\$2,282	\$0	\$6,847	-\$6,847
Furniture & fittings	\$4,000	\$35,590	789.75%	\$5,260	\$5,921	-\$661	\$10,110	\$27,159	-\$17,049	\$8,898	\$32,281	-\$23,384	\$11,323	\$36,462	-\$25,139	\$35,590	\$101,823	-\$66,233
Office equipment & IT	\$54,000	\$176,286	226.46%	\$11,000	\$51,912	-\$40,912	\$55,095	\$70,569	-\$15,474	\$44,071	\$109,457	-\$65,385	\$66,119	\$146,032	-\$79,912	\$176,286	\$377,970	-\$201,684
Motor vehicles	\$92,857	\$732,464	688.81%	\$372,714	\$375,045	-\$2,331	\$119,917	\$587,674	-\$467,757	\$130,000	\$693,914	-\$563,914	\$109,834	\$730,624	-\$620,790	\$732,464	\$2,387,257	-\$1,654,793
Land & buildings	\$0	\$11,700	0.00%	\$2,925	\$0	\$2,925	\$2,925	\$0	\$2,925	\$2,925	\$0	\$2,925	\$2,925	\$0	\$2,925	\$11,700	\$0	\$11,700
Total CAPEX	\$13,796,827	\$14,417,377	4.50%	\$6,702,025	\$938,795	\$5,763,230	\$2,633,115	\$1,933,864	\$699,251	\$3,449,888	\$4,935,410	-\$1,485,522	\$1,632,350	\$6,073,410	-\$4,441,060	\$14,417,377	\$13,881,478	\$535,899

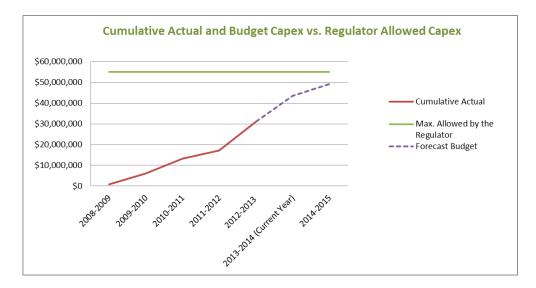


The above graph shows the Budget vs. Actual comparison for the year 2012/13. Except for the generation capex expenditure, all the other capex categories show over expenditures. The actual distribution capex exceeded the budget by about \$3.2 million. The main contributor to the over expenditure for distribution is the Village Network Upgrade Project. This aid funded project requires a significant contribution from TPL in associated transformer, metering, and HV network upgrade. The delayed start of this project meant that much of the programmed work was moved into the 2012/13 financial year.

As mentioned above, the generation budget was under achieved, due to TPL being able to delay the purchase of the second Mak generator, and the balance of \$5.6 million generation capex expenditure is postponed to the next financial year.



The above graph shows the actual Capex Expenditure for the 2009-2013 period and budgeted Capex for the 2014-2015 for the complete regulatory period. It has been budgeted \$12.5 million Capex expenditure for the ended 2014 and \$5.5 million Capex expenditure for the year ended 2015.



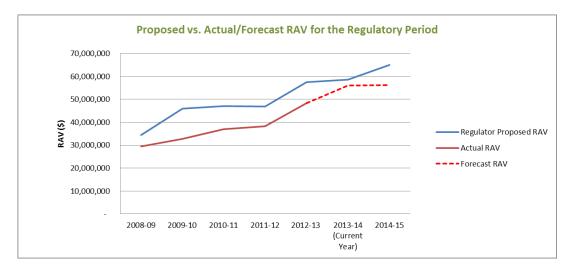
At the start of the regulatory period, the regulator allowed \$55 million Capex budget. However, as shown in the above graph, TPL has only spent \$31 million on Capex. There is still \$24 million Capex budget left to be spent. However, according to budget forecast, TPL has only \$18 million Capex to spend for the next two years.

Refer to the excel files 'Capex Summary for the Regulatory Period 2008-2015' and 'Capex Reconciliation July 12 – June 2013' for further information on capital expenditure.

5. Annual RAV Update

Actual Results									
Decription	2008-09	2009-10	2010-11	2011-12	2012-13 Q1	2012-13 Q2	2012-13 Q3	2012-13 Q4	2012-2013
Opening Net Book Value	30,123,378	29,512,275	32,667,062	36,964,833	38,203,683	38,455,675	39,625,382	43,539,186	38,203,683
Generation Capital Expenditure	-	2,350,792	1,912,142	52,767	-	-	2,074,258	2,193,998	4,268,256
Distribution Capital Expenditure	385,605	1,952,145	3,638,383	3,483,179	505,270	1,240,465	1,987,212	2,858,761	6,591,707
Office Computers & Equipment	33,279	87,064	463,620	106,854	51,912	70,569	109,457	146,032	377,970
Furniture & Fixtures	4,007	13,221	20,532	18,850	5,921	27,159	32,281	36,462	101,823
Tools & Equipment	55,206	114,239	133,812	61,455	646	5,715	36,005	105,251	147,617
Vehicles	213,121	638,415	503,709	159,492	375,045	587,674	693,914	730,624	2,387,257
Other Auxiliary Equipment	1,348	31,467	93,001	-	-	2,282	2,282	2,282	6,847
Land & Building	128,863	80,944	463,462	28,359	-	-	-	-	-
Disposals and Retirements	-	(329,007)	(614,553)		-	-	-	-	-
Depreciation on Opening RAV	(1,369,244)	(1,369,244)	(1,369,244)	(1,369,244)	(342,311)	(342,311)	(342,311)	(342,311)	(1,369,244)
Depreciation New Assets	(63,289)	(415,248)	(947,092)	(1,302,862)	(344,491)	(421,846)	(679,293)	(967,750)	(2,413,380)
Closing Estimated RAV	29,512,275	32,667,062	36,964,833	38,203,683	38,455,675	39,625,382	43,539,186	48,302,535	48,302,535

With the addition of \$6,073,410 new capital expenditure for the fourth quarter, the new RAV as at June, 2013 was recorded as \$48,302,535.



As shown in the above graph, at the end of the regulatory period, actual cumulative RAV (\$56 million) is much lower than the cumulative proposed RAV (\$65 million) by the Regulator.

6. Capex Expenditure Proposal - 2013/14

Tonga Power Limited wishes to submit the Capex Proposal 2013/14 to the Electricity Commission for approval. The summary of the Capex Proposal is below.

Capex Category	Eua	Ha'apai	Tongatapu	Vava'u	Grand Total
□ Distribution	\$162,128	\$163,479	\$3,483,367	\$435,994	\$4,244,969
BUILDING			\$185,000	\$30,000	\$215,000
GROWTH	\$8,072	\$8,118	\$1,065,390	\$23,569	\$1,105,149
Improvements	\$85,597	\$86,078	\$1,046,372	\$136,586	\$1,354,633
Office Furniture			\$2,009		\$2,009
Revenue Protection	\$8,437	\$8,039	\$190,303	\$33,857	\$240,636
Safety	\$49,510	\$50,644	\$588,293	\$76,982	\$765,429
Tools and Equipment	\$10,513	\$10,600	\$51,000	\$15,000	\$87,113
Vehicle			\$355,000	\$120,000	\$475,000
■ Generation	\$223,000	\$118,000	\$6,802,000	\$90,500	\$7,233,500
ANCILLARY			\$149,000	\$50,000	\$199,000
GROWTH	\$120,000		\$200,000		\$320,000
REPLACEMENT	\$103,000	\$118,000	\$6,453,000	\$40,500	\$6,714,500
■Indirect			\$872,991		\$872,991
BUILDING			\$22,350		\$22,350
INFORMATION TECHNOLOGY			\$197,000		\$197,000
OFFICE AND COMPUTER EQUIPMENT			\$139,233		\$139,233
Office Furniture			\$6,792		\$6,792
Tools and Equipment			\$507,615		\$507,615
■Retail	\$2,000	\$45,000	\$79,000	\$5,000	\$131,000
OFFICE AND COMPUTER EQUIPMENT		\$3,000		\$3,000	\$6,000
Office Furniture	\$1,000	\$1,000	\$3,000	\$1,000	\$6,000
TOOLS			\$1,000		\$1,000
Tools and Equipment	\$1,000	\$1,000		\$1,000	\$3,000
Vehicle		\$40,000	\$75,000		\$115,000
Grand Total	\$387,128	\$326,479	\$11,237,358	\$531,494	\$12,482,460

The attached file 'TPL Capex Budget 2013-14' lists out Capex Proposal in detail.

7. Fuel Tariff Review

In accordance with the requirements of the Electricity Concession Contract, an increase of 3.49 Seniti/KWh fuel tariff component was estimated as a result of increase in fuel prices in Tonga. The new electricity price of 92.74 Seniti/KWh will be effective for all consumtoion metered from 1 August 2013. The supporting documents together with the Castalia Model spread sheet were submitted to the EC on the 17th July, 2013 by the Finance Manager.

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 June 2013
- ➤ Reliability Measures June 2013
- Faults Events June 2013
- Capex Reconciliation July 2012 June 2013
- > Capex Summary for Regulatory Period
- > TPL Capex Proposal 2013-2014