12 December 2012

Lord Dalgety
Electricity Commission
Tu’atakilangi
Nuku’alofa

Dear Lord Dalgety

Compliance Reporting for the Month of December 2012

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 December 2012.

1. System Loss Report
2. Reliability Measures
3. Monthly Outage Events

The above report items are described in detail below.

1. System Loss Report

The following graph illustrates the past 12 months moving average (smoothed) of systems losses for all four islands for the period Jul 2007 – Oct 2012. The graph indicates that the total losses for all four islands have decreased from 14.41% (in August 2012) to 13.67% (in October 2012). It was noticed, on a real time basis (disregarding 12 months moving average), that Tongatapu losses have decreased (from 21.70% to 8.92%). The real time monthly losses variability can be explained by the impact of the number of days and fall of the weekends in respect to meter reading cycle. Similar trends are observed for other grids, which is why we use twelve month rolling average. The above reduction of twelve months moving average was totally due to reduction of Tongatapu losses; however, moving averages have not changed much for Haapai, Vavau and Eua.

Fuel efficiency has also decreased slightly from 4.23 Kwh/L in August to 4.20 Kwh/L in November 2012.

Please refer to the attached excel file ‘System Loss Report November 2012’ for further details.
2. Reliability Measures

SAIDI minutes (measuring average total duration of interruption per connected customer) for the month of November have significantly increased from 16.05 minutes (October 2012) to 150.73 minutes (November 2012).
CAIDI minutes (measuring average total duration of interruption per interrupted customer) for the month of November have also increased from 11.23 minutes (in October) to 62.32 minutes (in November).

SAIFI (measuring average number of interruptions per customer) has increased from 1.43 (in October 2012) to 2.42 (in November).
Further information on SAIDI, SAIFI and CAIDI indicators can be found in the attached excel file named Reliability Measures December 2012.

3. Monthly Outage Events

As per the graph above, the number of outage events has significantly increased to 810 events in November from 521 events in October mainly due to an increase of street light faults (221 fault events in November compared to just 15 in October). The service line and customer requests faults also have increased in the last month. The street light associated events included failure of a number of switches during a severe storm, resulting in a large number of daily manual switching operations to turn lights off and on manually.

The complete list of outage events can be found in the attached Outage Events December 2012 file.

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 December 2012
- Reliability Measures December 2012
- Outage Events December 2012