28 March 2014

Lord Dalgety  
Electricity Commission  
Tu’atakilangi  
Nuku’alofa

Dear Lord Dalgety

Re: Monthly Compliance Report - March 2014

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 February, 2014.

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

The above report items are described in detail below.


The following graphs illustrate the 12 months Moving Average (smoothed) Systems Losses for all four islands for the years 2012/13 and 2013/14. The 12 months moving average losses are used because of the variability of monthly Real Time Systems Losses due to the impact of the number of days and fall of the weekends in respect to meter reading cycle. In addition, system loss report is always one month late as last month consumption data (i.e. meter readings) will only be read this month and available to report next month. Hence February, 2014 report contains only January, 2014 system loss data.
For the month of January, 2014, all island moving average system losses have decreased slightly from 12.16% to 12.11% which is below the regulatory target 13%.

The individual island group’s system losses are shown below.

The graph above shows that Tongatapu systems losses have decreased from 12.02% (December) to 11.84% (January). The graph also shows that the year 2013/14 losses have decreased significantly from the previous year data.
Vava’u losses however have increased slightly from December, 2013 to January, 2014.

Ha’apai system losses have always been below target.
Eua systems losses have been always steady, but well above 13% target.

Overall all islands systems losses have decreased significantly below the target 13% since September, 2013 due to the network improvements implemented through the Village Upgrade Project.
2. Fuel Efficiency Report, January 2013

Tongatapu fuel efficiency ratios have been erratic, but most of the time above the target. January, 2014 was not a good month again achieving 4.21KWh/L below the target.

Vava’u fuel efficiency ratios have been well above the target due to the two new 600KW generators commissioned in May, 2010 and the introduction of Vava’u solar farm which was commissioned in November 2013. This will be corrected in the next month report to reflect only diesel generation and diesel fuel use.

Mostly, fuel efficiency ratios have been under achieved in Haapai and Eua.
Overall, all island fuel efficiency ratios have been above weighted average target of 4.17 KWh/L.

3. Reliability Measures, February 2014

<table>
<thead>
<tr>
<th>Reliability Measures</th>
<th>SAIDI Monthly Performance (Minutes)</th>
<th>CAIDI Monthly Performance (Minutes)</th>
<th>SAIFI Monthly Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul</td>
<td>7.7</td>
<td>4.74</td>
<td>21.21</td>
</tr>
<tr>
<td>Aug</td>
<td>935.29</td>
<td>4.51</td>
<td>37.88</td>
</tr>
<tr>
<td>Sep</td>
<td>933.55</td>
<td>59.19</td>
<td>2.93</td>
</tr>
<tr>
<td>Oct</td>
<td>9.35</td>
<td>253.89</td>
<td>32.02</td>
</tr>
<tr>
<td>Nov</td>
<td>4.35</td>
<td>25.49</td>
<td>138.22</td>
</tr>
<tr>
<td>Dec</td>
<td>20.42</td>
<td>115.19</td>
<td>72.61</td>
</tr>
<tr>
<td>Jan</td>
<td>984.8</td>
<td>622.62</td>
<td>153.97</td>
</tr>
<tr>
<td>Feb</td>
<td>162.32</td>
<td>3010.76</td>
<td>189.06</td>
</tr>
<tr>
<td>Mar</td>
<td>296.37</td>
<td>23.32</td>
<td>146.48</td>
</tr>
<tr>
<td>Apr</td>
<td>157.89</td>
<td>336.9</td>
<td>236.17</td>
</tr>
<tr>
<td>May</td>
<td>8.22</td>
<td>294.55</td>
<td>100.64</td>
</tr>
<tr>
<td>Jun</td>
<td>62.22</td>
<td>14.72</td>
<td>7.26</td>
</tr>
</tbody>
</table>

SAIDI minutes (measuring average total duration of interruption per connected customer) for the month of February, 2014 have slightly decreased from 55.91 (January, 2014) to 47.3 (February, 2014) minutes (see the table above). The major HV faults contributed to the SAIDI minutes for the month of February are described below.
Cumulative SAIDI YTD is shown below:

CAIDI minutes (measuring average total duration of interruption per interrupted customer) for the month of February 2014 have increased from 116.16 (January, 2014) to 124.67 minutes (February, 2013).
SAIFI (measuring average number of interruptions per customer) has however slightly decreased from 0.48 (January, 2013) to 0.379 (February, 2013).
There were total of 596 planned & unplanned fault events for the month of February, 2014 affecting 6,656 customers. As per the table above, the number of fault events has decreased from 692 events in January, 2014 to 596 events in February, 2014. HV/LV transformer faults have decreased slightly. Whilst customer premises faults have increased, service line faults have decreased significantly. Most of the customer services faults included fuses at the service line tap off point for a premise. Street lights faults have also decreased slightly. There is no correlation between the 2013 and 2014 figures.

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