

ELECTRICITY COMMISSION

Before : Commissioners 'Atiola, Vaihū and Kitekei'aho :

Assisted by : Mr. Morris Pita of Messrs Shea Pita & Associates
(Reset Independent Expert Advisor to the Commission):

Mr. Tavake B. Afeaki
(Reset Legal Advisor to the Commission): and

Rt. Hon. Lord Dalgety Q.C.:
(Chief Executive of the Commission):

Clerk : Miss Meleseini V. Folau
(Secretary to the Commission):

In Re : **ELECTRICITY RESET 2015**

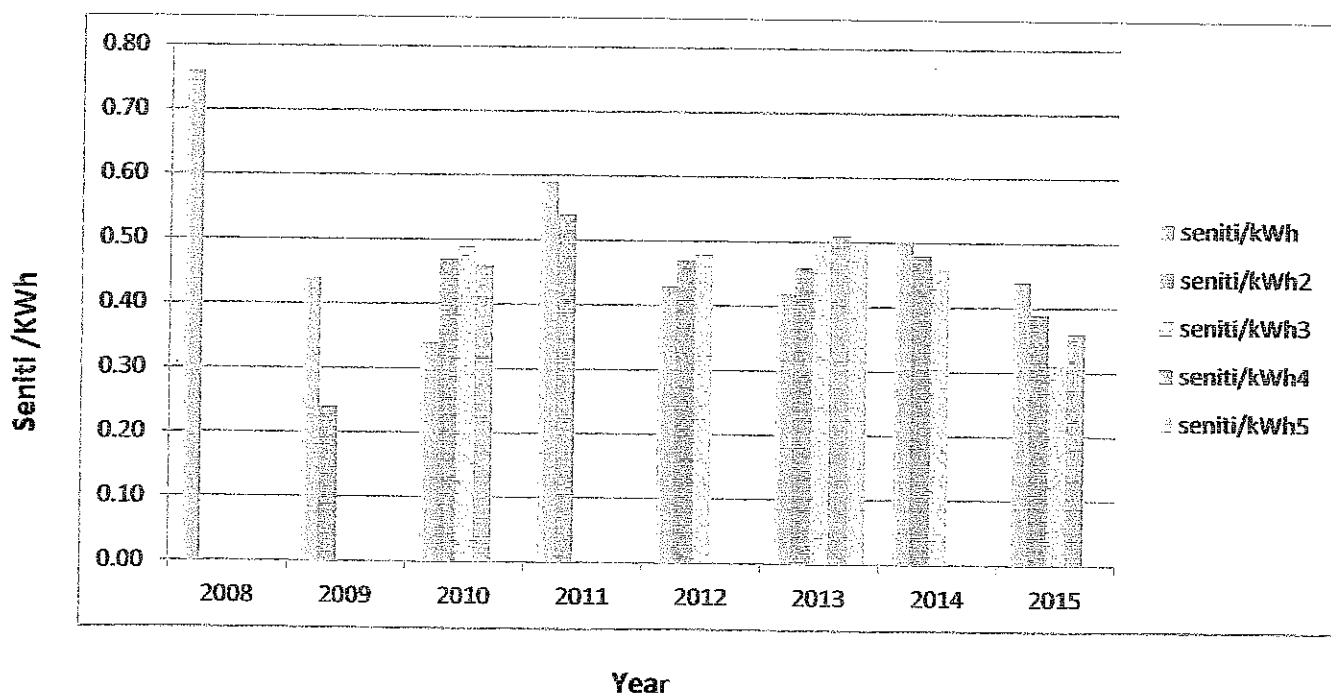
Decision Date : Tuesday 30th June 2015

DECISION NUMBER 2

1. The Regulated Electricity Tariff comprises (a) a **fuel component** and (b) a **non-fuel component**. This Number 2 Decision is concerned only with the former. Decisions on the non-fuel component of the Tariff are works in progress yet to be resolved.
2. As a matter of policy the same tariff applies throughout the Kingdom of Tonga. These arrangements have been in place for many years and neither the Regulator ("the Electricity Commission") nor the energy provider Tonga Power Limited see any compelling need to alter these arrangements during this Reset.
3. In general terms the Fuel Component of the Regulated Electricity Tariff will continue to be calculated and adjusted in accordance with the arrangements presently in force. There will however be certain necessary variations, namely : -
 - the introduction of new Heat Rate Targets, upon which a commentary will be found in Reset Decision number 1 :
 - the introduction of new System Loss Targets, upon which a commentary can be found also in Reset Decision number 1 :
 - the removal altogether of the pernicious 3% Bad Debt Allowance :
 - the smoothing of over and under recoveries over a 12 month period rather than at present, originally over a 3 month period and latterly over a 6 month period :
 - the fixing of the forecast horizon for fuel price and power sales at 12 months:
 - for the sake of transparency, new arrangements for giving credit to customers for diesel savings as a result of renewable energy generation will now be included within the tariff adjustment formula: and
 - correction of certain syntactical errors in the existing fuel adjustment formula.
4. Under the existing (first) Concession Contract the Fuel Tariff was revised in June 2015 and fixed at 39.34 seniti per kWh effective 1st July 2015 : accordingly that shall be the opening fuel tariff as at 1st September 2015.

Decision : At the commencement of the Reset Period on 1st September 2015 the Fuel Component of the Regulated Tariff shall be 39.34 seniti/kWh.

5. As already resolved in Reset Decision Number 1 a more frequent adjustment than Quarterly is contemplated in circumstances referred to therein. A measure of certainty will be brought to this out-of-period adjustment process by the inclusion in the new Concession Contract Adjustment Formula of a threshold to trigger such a review.
6. Since the formation of the Electricity Commission in July 2008 the World Market for petroleum products has been extremely volatile and this has impacted on the landed cost of fuel in Tonga. The introduction of electricity generation by solar, and possibly other renewable energy sources in the future, will continue to ameliorate the impact on Tonga of World Oil Prices.
7. The following Table illustrate the huge fluctuations in the fuel component of the electricity tariff over the last seven years for the period from July 2008 until June 2015 from a high of 76 seniti/kWh in 2008 to a low of 31 seniti/kWh earlier in 2015, and an even greater low of 24 seniti/kWh in 2009.



8. The fuel element of the regulated electricity tariff is designed to permit Tonga Power to recover, not the full cost of the fuel they purchase for use in the generation of electricity, but only a reasonable cost recovery based on their **efficient** use of such fuel. To that end certain efficiency standards are incorporated into the pricing formula, namely for Heat Rate and System Losses. Both these standards were reset for the Second Reset Review in Reset Decision Number 1. This methodology the Regulator prefers to a straight pass-through approach to ensure that the most efficient use is made of costly **diesel fuel** purchases.

9. The **3% Bad Debts Allowance** is now removed from the pricing formula. This element was imposed upon the Regulator in 2008 and has always been opposed by the Regulator. In fairness to Tonga Power it must be pointed out that the Allowance was not included in the formula at their bidding but was a relic of attempts made earlier this Century by an earlier Government to secure the sale of Tonga's electricity assets to a New Zealand lines company. Thus the "concession contract" offered them by the former Government was made commercially attractive and the sale would have been consummated but for certain disturbances in the Kingdom in 2006 which increased the Kingdom's risk profile to the potential purchaser and led to them withdrawing their offer to buy. This bad debt allowance was but one of the elements of the 2008 Concession Contract which led to the Commission describing it as an imperfect regulatory instrument. Because of its inclusion in the formula, the fuel price to Tongan Consumers for the last 7 years was somewhat higher than it needed to be. Frankly, there is no place whatsoever for a Bad Debt Allowance in the fuel price model. Its proper place is as a factor in Tonga Power's Non-Fuel OPEX, and then, only to an extent justified by actual results as certified by their Auditors : the actual amount is in the order of 120,000 Pa'anga per annum on a turnover of some 44 million Pa'anga, or just under 0.3%. Certainly nothing like 3.0%!

10. The **forecast horizon for fuel price adjustments** will now be formalised upon a 12 month rolling forecast period. This means that each quarter when Tonga Power applies

for a fuel component adjustment they will make a forecast as to likely fuel prices during the immediately ensuing 12 months. The Commission may agree or disagree with their forecast. Any optimistic or pessimistic forecasts are smoothed out using the overs and unders provisions of the formula.

11. A similar period of 12 months, for the sake of logical consistency, will also be adopted for forecasting power sales, the **"kWh billed"** of the formula.
12. During the period 2008-2015 the existing Concession Contract Formula made no provision for benefitting consumers by incorporating into the fuel component of the tariff **savings in diesel from renewable generation**. This defect was recognised by both the Regulator and Tonga Power and, informally, the full benefit of such savings was calculated and passed on to consumers in a lower fuel tariff. The time is now propitious to formalise these arrangements and incorporate them into the fuel pricing formula especially as the benefit of renewable generation in diesel purchase savings will continue to grow throughout the Second Reset Period as Tonga advances towards its Government ordained target of 50% of electricity being generated by renewables by the year 2020. Such a formula will be introduced into the Tariff Review Mechanism to be included in the new Concession Contract.
13. The adjustment on a regular basis to the Fuel Component of the Electricity Tariff must follow precisely the *Formulae* designed for that purpose and set forth in considerable detail in the Electricity Concession Contract for the Second Reset Period.
14. The SPC in Reset Document CON-1 reported on the fuel pricing template used by the Tongan Competent Authority (a function of the Ministry of Commerce) to fix each month the maximum permitted wholesale price of various fuels, including diesel used for electricity generation. Therein they expressed "some concerns" about aspects of the template (pages 5-7) which Tonga Government must now address in discussions with the oil companies supplying fuel to the Kingdom. That however is merely a stop-gap solution for there will be no substantial reduction in the landed cost of fuel in the

Kingdom until there is a new Fuel Supply Chain which involves oil being shipped to Tonga directly on a Medium Range Tanker thus avoiding costly trans-shipment and other costs in Fiji. The Government is now committed to implementing a new Fuel Supply Chain the details of which have yet to be settled. The Regulator welcomes this in the belief that when fully implemented (probably in December 2016) fuel landed in Tonga will cost substantially less than if existing arrangements were to remain in force : there is credible evidence available to the Regulator that this saving could be as much as 20%.

15. Fuel intended for use by Tonga Power for electricity generation is presently exempt from Duty and the Regulator requests Government to continue this exemption during the Second Reset Period as the removal of the exemption would lead inevitably to an increase in the Fuel Component of the Electricity Tariff!
16. The introduction of the new Fuel Supply Chain is bound to have a dramatic impact on the Fuel Component of the Electricity Tariff and when the details of these new arrangements are known and the new system implemented there may be a need to review the basis upon which the Fuel Tariff is calculated.

BY ORDER OF THE COMMISSION

