

ELECTRICITY COMMISSION

KINGDOM OF TONGA

- population 105,000
- 4 main island groups (and ∴ 4 separate grids)
- 20,516 Electricity Customers, of whom 80% are Residential and 20% Non-Residential (Business, Government, Churches)
- However 80% of Electricity Demand is for Non-Residential Customers and 20% for Residential Customers

KEY ELECTRICITY STATISTICS

- 92% of the Kingdom's Homes are Grid connected
- 0.5% on very small islands have their own mini-grids
- 49,165,194 kWh delivered to customers last year
- Total Installed Generating Capacity of 18MW whereof 15MW Diesel and 3MW Solar (16%)
- Government Target of 50% Renewable Energy Generation by 30 June 2020. Projects to be fully operational by then include an IPP of 2MW (operational mid-2017) and a Japan Government Wind Farm of 1MW (operational 2018). Discussions are under way for a further 4MW of Solar to be operational 2018-2020
- Distribution System comprises 301 km of HV lines and 213 km of LV lines. Over half of the Grid will have been renewed by 2020
- Current Line Losses of 8.5% (down from 22% in 1999) and expected to fall to 5-6% by mid-2020
- Diesel Fuel Efficiency now 4.15 kWh/litre up from less than 3.7 kWh/litre in 2008

ELECTRICITY TARIFF

- In the last two years the Electricity Tariff has been cut from 91.73 seniti/kWh (46 US cents) to 72 seniti/kWh (36 US cents). Further reductions will follow as new RE generation implemented
- Uniform Tariff since 2006 according to the mantra – ONE COUNTRY : ONE PRICE
- Savings from RE are passed on in FULL to Consumers
- Smart Metering being introduced gradually and eventually this could lead to a lower tariff for consumption in OFF-PEAK hours
- Reduced Rate Tariff for Residential Consumers with limited demand (under 100 kWh/month) currently under discussion for introduction in 2017

REGULATORY MODEL

- Concession Contract with (now) 5 year Resets
- Last Reset in 2015 after full review of power producers OPEX and CAPEX for 2015-2020 : 1% rise in Non-Fuel Component of Tariff (less than Inflation since previous Reset in 2008)
- Non-Fuel Tariff changes annually only with inflation. No increase allowed for 2016 (deflation!) and a similar result expected for 2017
- Fuel Tariff allows only “efficient” use of diesel. Pre-set Fuel Efficiency, Parasitics and Line Loss targets – if not met then actual fuel purchase cost reduced. INCENTIVE to meet Efficiency Targets

ELECTRICITY COMMISSION

- Regulator of Electricity Sector
- Licensing and Examining authority for Electricians
- Oversight of ALL Electrical Works to ensure electrical safety
- Full-time staff of 6, plus 1 relief officer, 3 part-time NX Commissioners, and 1 overseas Advisor on call if required

BENEFITS OF TONGA REGULATORY REGIME

- Tongan model is the best in the Small Island States of the Pacific (*ADB report on State Owned Enterprises*)
- PWC Review in February 2014 concluded that TPL are running an **efficient business**
- Benchmarking Report 2014-2015 of 21 Pacific electricity utilities places Tonga (TPL) **second** behind Fiji (Report by the Pacific Power Association, July 2016)



THANK YOU