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Annual Review of MULTI *YEAR TARIFF (MYT) FOR 3 YEARS: 2015-2018 and* Proposal by the Electric Power Corporation (EPC) for tariff rates restructure

Information Paper – June 2017

1. Introduction

On **7th June 2017** the Office of the Regulator (OOTR) received a proposal from the Electric Power Corporation ("EPC") seeking approval in pursuant to Part 4 Sections 19 and 20 of the Electricity Act 2010 ("the Act") for new electricity tariffs and change in structure. The main objectives of EPC in its Corporate Plan are for provision of affordable and reliable services to the general public. This was re-enforced through the Power Sector Expansion Project (PSEP) to improve EPC's financial performance by improving collection of arrears and receivables and tariff rightly set to meet financial obligations including loan repayments.

The OOTR seeks and welcomes comments on the issues raised in this Paper in relation to the proposal from EPC.

2. Executive Summary

The existing tariff structure and methodology currently used by EPC was adopted in 2014 after the completion of a Review by OOTR based on the Cost of Service Study conducted by Economist.com for EPC. The Regulator approved the Multi Year Tariff effective July 2015 which was designed and intended to provide EPC, OOTR, customers and stakeholders the opportunity to construct a more substantial framework for tariff determination in the future, beginning with setting the rates for financial year 2015/16, 16/17 & 17/18. Annual Review of these rates is pursuant to the Act Part 4 and also required under Order of Regulator No.2016/E40.

The Regulator in accordance with the Act, now engages all stakeholders in consultation to ensure that their views are taken on board before finalizing any decision regarding the proposal by EPC and carrying out our Annual Review of the Multi Year Tariff and proposed changes for Domestic consumers and new tariff rates for FY 2017/2018.

In facilitating public consultation on the issue the Regulator will start holding face to face sessions with stakeholders from week commencing 17th July 2017 after which their comments will be collated and relevant inputs incorporated in the final decision.
The Public Consultations will be facilitated by the Office of the Regulator.

3. Purpose

The purpose of this Paper is to provide the issues for consideration to allow stakeholders to make comments on the EPC proposal and in finalizing our Annual Review of the effects of the Multi Year Tariff rates.

4. Background and Key Issues

The Proposal by EPC for review of tariff rates structure for next year was done in-house by EPC .The objective of the review was to provide affordable electricity for all consumers with a special focus on domestic consumers thus passing the efficiencies achieved through restructuring and developments for the benefit of all. The provision for the Corporation to meet the requirement of 7% Return on Equity is factored into the setting of new tariffs.

Table 1: Current Electricity Rates- June 2017

Domestic	**Debt Charge**	**Usage Charge**	**Energy Charge**	**Total**
Induction Meters	Sene/unit	Sene/unit	Sene/unit	
All units	0.10	0.26	0.51	0.87
Cash Power Meters				
1-100	0.10	0.12	0.51	0.73
100 and over	0.10	0.26	0.51	0.87
Non Domestic Post paid meters				
All units	0.10	0.36	0.51	0.97
Cash power meters				
All units	0.10	0.26	0.51	0.87

Specific cost items that are to be met from tariffs include:

1. Operating Expenses
2. Capital Outlays
3. Debt Service

The most significant projected Operating expense to be incurred by EPC for diesel generation facilities will be about 50% of total operating costs. Capital outlays are expenditures for capital items that are not funded through long-term debt and the Debt Service cost component is payments of the term loans from the Asian Development Fund (ADB) and the Japanese International Cooperation Agency (JICA) for the Power Sector Expansion Project (PSEP).

<u>Power Sector Expansion Project as of April 30, 2017</u>

Funding Sources	Net Uncommitted Funds, USD $
ADB Loan	$849,505.43
ADB Grant	$2,196,703.61
JICA Loan	$11,574,631.15
AUSAID Grant	$14,984.41
Total Unobligated Funds	**$14,635,824.60**

The following table presents proposed tariff rates for financial year 2017/2018.

Table 2: Proposed tariff rates for FY 2017/2018

Domestic	**Debt Charge**	**Usage Charge**	**Energy Charge**	**Total**
Induction Meters	Sene/unit	Sene/unit	Sene/unit	
1-50units	0.07	0.10	0.53	0.70
Consumption>50units	0.07	0.42	0.53	1.02
Cash Power Meters				
1-50units	0.07	0.05	0.53	0.65
Consumption>50units	0.07	0.40	0.53	1.00
Non Domestic **Post paid meters**				
All units	0.07	0.44	0.53	1.04
Cash power meters				
All units	0.07	0.42	0.53	1.02

The following is notable from the above:

1. A 2 Tier structure [1-50units, Consumption>50units] is recommended instead of the 2 tier [1-100units &101+] currently in place. This will only benefit the domestic consumer whose consumption is 50 units and below per month to be entitled the lifeline rate instead of only up to 100 units as currently applies. All other consumers whose consumption is more than 50units per month to be charge a flat rate This is aimed by EPC only those consumers who really need the lifeline rate to be charged that rate and other consumers to pay for the actual cost of the delivery of electricity services to their homes.

2. Proposed tariff includes Debt Charge which will enable EPC to pay its loan commitments for PSEP. Usage Charge covers operational and capital costs, and Energy Charge with injection of renewable energy electricity generation.

3. Included in generation mix forecast are electricity supplied from 3 Independent Power Producers. Costs to buy this electricity from IPPs are included in computing of Energy Charge rate. It is expected to reduce the energy charge once the refurbishment of Alaoa, Fale o le Fee and Samasoni complete.

4. It is noted that the proposed tariffs include the 7% Return on Equity (ROE) the requirement for State Owned Enterprises including EPC, license fees and VAGST equalisation charge.

EPC Proposal

EPC has proposed tariffs for the next financial year, using the same methodology as in the current tariff. Methodology is breaking into 3 components, which are Debt Charge, Usage Charge and Energy Charge. However, EPC is proposing a 2 Tier Structure [1-50 units, Consumption>50units] instead of 1-100units and 101+] currently used. This will only apply for Domestic consumers.

1 Debt Charge

1. The Ministry of Finance (MOF) agrees to a full settlement of Afulilo loan and partial payment of PSEP tranche 1 using outstanding VAGST ($6.7m in Annual Account FY2015) and VAGST Refunds (14m in April 2017)
2. MOF passes the impact of Loan Buy Down Mechanism to EPC for the benefit of consumers.
3. With the above assumptions in place only the PSEP loan will remain to be paid and the total principals and interests for that loan during the year is $10.6million.

2. Usage Charge

There is proposed decrease in Usage Charge for Cash Power and Induction users whose consumption is 50 units and below for Domestic consumers in the next financial year. The proposed usage charge for other consumers whose consumption is more than 50 units per month is now increased due to the inclusion of 7% ROE requirements, government budget for FY 2017/2018 reduced EPC Community Services Obligations (CSO), New Licence fees imposed by OOTR and the VAGST Equalization charge imposed by MOF.

3. Energy Charge

In addition to fuel generation, EPC will also be buying power from Independent Power Producers which started to operate in March 2015. There are 3 IPPs who have signed Power Purchase Agreements with EPC. The Energy Charge covers costs of diesel fuel and lubrication oil for generating electricity as well as the cost to buy power from IPPs. This will be reviewed on a monthly basis by the Office of the Regulator.

Table 3: Current compared to proposed two tiers Tariff Structure

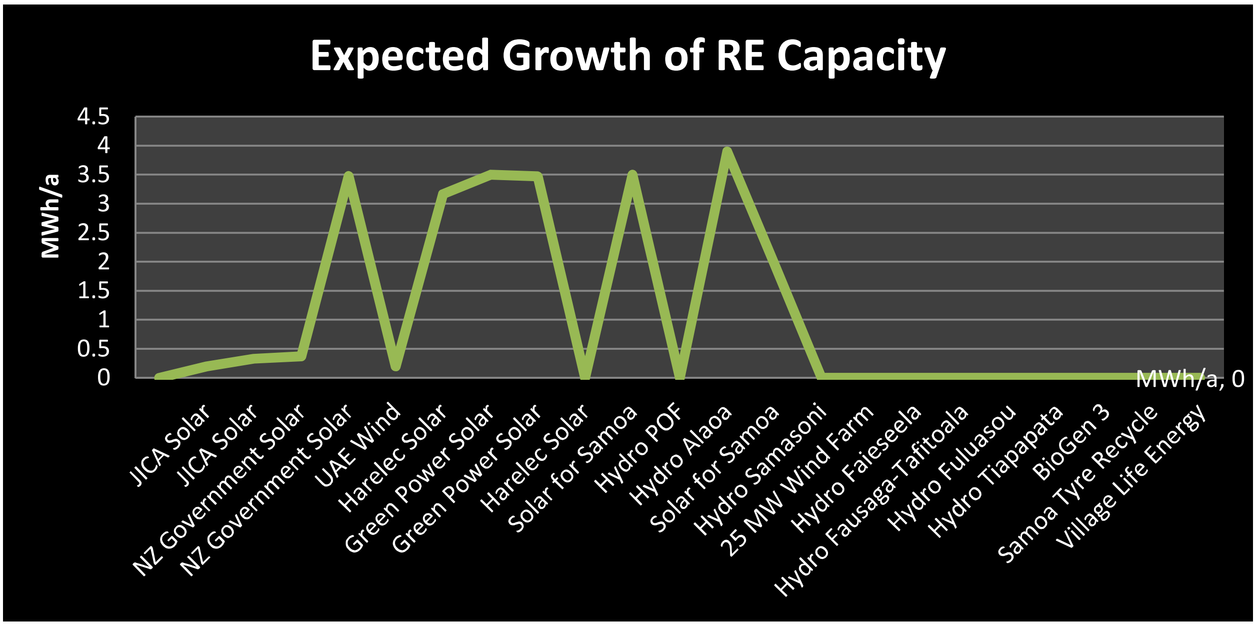
Details		Current FY2016/17	Details	Proposed FY2017/2018
Domestic Billing		$	**Domestic Billing**	$
Debt Charge	All kWh	0.10	All kWh	0.07
Usage Charge	All kWh	0.26	1-50	0.10
			Consumption>50	0.42
Energy Charge	All kWh	0.51	All kWh	0.53
Domestic Cash Power		**$**	**Domestic Cash Power**	**$**
Debt Charge	All kWh	0.10	All kWh	0.07
Usage Charge	1 – 100	0.12	1 –50	0.05
	101+	0.26	Consumption>50	0.40
Energy charge	All kWh	0.51	All kWh	0.53
Non Domestic Billing		**$**	**Non Domestic Billing**	**$**
Debt Charge	All kWh	0.10	All kWh	0.07
Usage Charge	All kWh	0.36	All kWh	0.44
Energy charge	All kWh	0.51	All kWh	0.53
Non Domestic Cash Power		**$**	**Non Domestic Cash Power**	**$**
Debt Charge	All kWh	0.10	All kWh	0.07
Usage Charge	All kWh	0.26	All kWh	0.42
Energy charge	All kWh	0.51	All kWh	0.53

6. Considerations

As part of EPC's Proposal the following table is the potential Generation Mix for generating electricity by EPC and the Independent Power Producers.

No	Systems	EPC System Names	Fuel Type	Installed Capacity MW	MWh/a	Operational Status	Increase in RE Capacity
1	JICA Solar	EPC Tanugamanono Solar	Solar	0.150	0.20	2015 running	0.20
2	JICA Solar	EPC Vaitele Solar	Solar	0.250	0.33	2015 running	0.53
3	NZ Government Solar	EPC Gym 3 Solar	Solar	0.190	0.37	2015 running	0.90
4	NZ Government Solar	EPC Racecourse Solar	Solar	1.760	3.48	2015 running	4.38
5	UAE Wind	EPC Vailoa Wind	Wind	0.550	0.2	2015 running	4.58
7	Harelec Solar	IPP Sun Pacific Solar	Solar	2.070	3.17	2015 running	7.75
6	Green Power Solar	IPP Green Power Solar	Solar	2.000	3.50	2015 running	11.25
8	Green Power Solar	IPP Green Power Solar	Solar	2.550	3.47	2015 running	14.72
9	Harelec Solar	IPP Sun Pacific Solar	Solar	1.500		not certain	14.72
10	Solar for Samoa	IPP Solar for Samoa	Solar	2.810	3.50	2015 running	18.22
12	Hydro POF	EPC Fale ole Fee Hydro	Hydro	1.750		2017 07	18.22
13	Hydro Alaoa	EPC Alaoa Hydro	Hydro	1.050	3.9	2016 running	22.12
11	Solar for Samoa	IPP Solar for Samoa	Solar	1.500	1.97	2016 running	24.09
14	Hydro Samasoni	EPC Samasoni Hydro	Hydro	1.900		2017 12	24.09
19	25 MW Wind Farm	IPP 25MW Wind Farm	Wind	25.000		2018	24.09
15	Hydro Faieseela	EPC Faleaseela Hydro	Hydro	0.358		not certain	24.09
16	Hydro Fausaga-Tafitoala	EPC Fausaga-Tafitoala Hydro	Hydro	0.481		2017 12	24.09
17	Hydro Fuluasou	EPC Fuluasou Hydro	Hydro	0.732		2018 02	24.09
18	Hydro Tiapapata	EPC Tiapapata Hydro	Hydro			not certain	24.09
20	BioGen 3	IPP BioGen 3	Biofuel			not certain	24.09
21	Samoa Tyre Recycle	IPP Samoa Tyre Recycle	Recycle			not certain	24.09
22	Village Life Energy	IPP Village Life Energy				not certain	24.09
		BIOMASS - EPC, STEC, IPP		3.000		not certain	24.09
		Vaipu Pump Scheme				2019	24.09
		EPC Lalomauga Hydro					24.09
		EPC Taelefaga Hydro					24.09
		TOTAL=24.09					

Graph 1: Increase in RE sources in the Generation of Electricity by EPC.



The graph above shows the current peak demand in MW[1] against the proposed and operational Renewable Energy projects. Note the proposed capacity does not represent actual operational capacity of the projects. Modelling data of each project is not available

1. For Savaii, energy load growth is 1.4% and the maximum demand not growing at all. Demand is 12 million units per year and 2.8MWpeak.

2. Included in generation mix forecast are electricity supplied from 3 Independent Power Producers which EPC will purchase power from at prices agreed on in signed Power Purchase Agreements. Costs to buy this electricity from IPPS are included in computing of Energy Charge Rate.

3. Implementation of the PSEP continues. As stated in the submission by EPC, about 90% of the work has been completed and rest of subprojects are either under construction, planning or bidding for construction. Final completion of Project is expected in August 2017.

4. MOF had made an agreement to a full settlement of Afulilo Loan. The only loan will remain to be paid with the total principals and interests during the year is SAT $10.6 million. This is taken into account in new proposed rates.

7. Communication and Implementation

Pursuant to Part 4 of the Act the OOTR in setting and reviewing tariff shall take into consideration the following:

(a) The likelihood of the tariff to recover costs and earn a return on investment for the licensee – in this case EPC
(b) The ability of low income households to pay
(c) Whether the tariff will encourage efficient use of electricity
(d) Whether the tariff will avoid price discrimination
(e) Whether the tariff is easy to understand and to apply

In addition to the above, the Act also requires the OOTR to keep the government advised and fully informed of pending proceedings in relation to tariff changes, and to seek public and stakeholder input by conducting public consultations.

This issues paper is part of the stakeholder consultation by OOTR in processing EPC's proposal.

The timeframe required by the Act for the OOTR to make a decision to accept or reject a proposal from a licensee, such as EPC for tariff change is six (6) months. The normal process which will be applied for reviewing the proposal by EPC before approval by OOTR and implementation include:

1. Send out issues paper to stakeholders for comments
2. Hold public consultations from week commencing **17th July 2017**
3. Collect and collate comments
4. Send draft determination and order to EPC for comments
5. The Regulator will then consider the comments and incorporate relevant submissions in a revised draft;
6. Issue Final Determination and Order of the Regulator
7. Implementation of multi-year tariffs

The Regulator now invites all interested parties to make relevant comments on the proposal by EPC for new tariffs and proposed Two Tier Structure; such comments to be submitted to the Office of the Regulator by **July 14th 2017**.

In view of the above requirements and the time on which OOTR received the proposal by EPC, the OOTR will make a decision within six months of receiving application.

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