OFFICE of the REGULATOR

Please address all correspondence to
the Regulator
Private Bag, Apia, Samoa

Tel: +685 30282
Fax: +685 30281
Email: admin@regulator.gov.ws

ORDER OF THE REGULATOR No.2021/E80

Multi Year Tariff (MYT) 2021-2024

Statutory Obligations

Sub-section 19 (1) of the Electricity Act 2010 ("the Act") requires the Regulator to set all tariffs charged by a licensee. The Electric Power Corporation ("EPC") submitted a proposal to the Office of the Regulator on the 15th June 2021 seeking approval in pursuant to Part IV Sections 19 and 20 of the Electricity Act 2010 ("the Act") for increase electricity tariffs. The proposal involves changes to the calculation of electricity tariffs for the MYT Financial Years (FYs) 2021/2022-2023/2024. This includes reviewing some aspects of the Usage charge component and Generation costs as well as its proposed Revenue Requirement.

Findings

The Review and the findings are based on the data, information and documents attained by the Regulator from EPC.

In light of the findings and considerations in the Determination, the Regulator makes the following Order for the regulated MYT 2021/2022- 2023/2024.

Order #1: Tariff Structure

1. Current tariff classes for Domestic consumers are retained for the FY 2021/2022 as follows;
    - Cash power two-tiers [1-50kWh/month] and [51+ kWh/month]
    - Induction all kWh in **one flat rate**

2. Non- Domestic consumers as follows;
    - Cash power all kWh in **one flat rate**
    - Induction all kWh in **one flat rate**

Order# 2: Electricity Tariff rates

The following tariffs apply **from 1st September 2021**

To be effective from 1 September 2021				
DOMESTIC	**Debt charge**	**Usage Charge**	**Energy Charge**	**Total Tariff**
Induction Meters	**sene/kWh**	**sene/kWh**	**sene/kWh**	**sene/kWh**
All kWh	0.07	0.26	0.43	**0.76**
Cash Power Meters				
1 to 50 kwh	0.07	0.12	0.43	**0.62**
51 kwh and over	0.07	0.26	0.43	**0.76**
NON-DOMESTIC				
Induction Meters				
All kWh	0.07	0.31	0.43	**0.81**
Cash Power Meters				
All kWh	0.07	0.26	0.43	**0.76**

The energy charge shall be monitored by the Office of the Regulator on a monthly basis using this formula :***{[total cost of fuel and lube oil to generate electricity] + [total invoice from IPP paid by EPC for feed in power]}/{ total kWh electricity sold to consumers that month}.***

For first 100 largest non-Domestic induction consumers only, they will be charged the fixed daily charge discounted based on their consumption as follows:

Daily fixed charge for 100 largest consumers

Fixed Rate Range	Proportion discount	Daily Fixed Charge	Energy Charge	Debt Charge	Usage Charge
FR1	75%	1,520	0.430	0.020	0.080
FR2	75%	1,140	0.430	0.020	0.080
FR3	75%	840	0.430	0.020	0.080
FR4	50%	380	0.430	0.040	0.160
FR5	50%	240	0.430	0.040	0.160
FR6	50%	130	0.430	0.040	0.160

Cost-reflective tariffs for customers with self-generation

Customer group	Daily Fixed Charge	Energy Charge	Debt Charge	Usage Charge
DM-C	1.4	0.43	0.00	0.00
DM-I	1.7	0.43	0.00	0.00
ND-C	6.00	0.43	0.00	0.00
ND-I	9.10	0.43	0.00	0.00
FR1	1,520	0.43	0.02	0.08
FR2	1,140	0.43	0.02	0.08
FR3	840	0.43	0.02	0.08
FR4	380	0.43	0.04	0.16
FR5	240	0.43	0.04	0.16
FR6	130	0.43	0.04	0.16

Order #3: Service Standards

1. Submit to the Office of the Regulator on an annual basis its performance report against its Key Performance Indicators.

2. Include in this report measures EPC is taking to improve its quality of service, considering the key issues i.e., increase in number of cash power outlets in rural areas, Smart meter service

Order# 4: Power System Expansion Plan (PSEP)

1. Prioritise filing the Power System Expansion Plan as required under Section 27 of the Electricity Industry Act 2010 by 1st October 2021.

2. Indicate the electricity network services licensee's plan for the next 5 years, describing capital expenditures for proposed network expansion or rehabilitation as well as new power supply requirement

3. The PSEP incorporates at a minimum all new renewable energy and any new generation added through the Power Sector Expansion Project and Rehabilitation projects.

Duration of the Order

This Order shall expire on the earlier of:

a) The Regulator revoking this Order; or

b) The making of a new Order by the Regulator in relation to the matters addressed herein.

Effective date of this Order:

In accordance with section 20(5) of the Act, the Electric Power Corporation shall not charge the above-mentioned rates until such time when the Electric Power Corporation has notified consumers of the new tariffs. The Regulator will allow the Electric Power Corporation fifteen (5) calendar days to notify the public of the change.

This order is effective from the 1st September 2021

Date of the Order: 25th August 2021

Lematua Gisa Fuatai Purcell
REGULATOR

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the Regulator
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Tel: +685 30282
Fax: +685 30281
Email: admin@regulator.gov.ws

DETERMINATION
ELECTRIC POWER CORPORATION ("EPC") MULTI YEAR TARIFF ("MYT") PROPOSAL
FY 2021/22-2023/24

Summary

EPC submitted proposal to the Office of the Regulator ("OOTR") on the 15th June 2021 for its MYT Financial Year (FY) 2021/22-2023/24. Overall, EPC proposed a $0.02sene increase in usage charge for all consumers based on the proposed costs of operation.

The major assumptions underlying this increase in tariffs include;

- Value Added on Goods & Services Tax (VAGST) status change from zero rated to VAGST exempt (pending Cabinet decision)
- Assuming a 10% increase in costs in the following 2 years of the multi-year tariff framework
- Forecasted demand growth projected to be 2%
- Fluctuating costs of fuel and uncertainty in weather patterns remain as high risks to EPC operations
- COVID-19 Pandemic impact will adversely affect consumption by some of its major consumers especially in the tourism industry

Section 1: Background

As a Government State Owned Enterprise ("SOE"), EPC was established in December 1972 to sustainably generate, transmit, distribute and sell electricity to the people of Samoa. EPC plays a vital role in the development of Samoa's economy - "the Power of the Nation", which has a significant impact on all sectors of the community and aims "to be the cheapest electricity provider in the Pacific Region[1]. In its new Corporate Plan 2021-2024 it's vision is for "Increased access by all people of Samoa quality and

[1] EPC Statement of Corporate Objectives 2017-2020, p2.

affordable electricity supply." To facilitate EPC's aims, and meet the requirements in the Electricity Act 2010, the **existing tariff structure** was approved under **Order of the Regulator No. 2020/E74** with the following categories:

- **Domestic Cash Power 2 tiers** [1-50kWh/month] and [51+ kWh/month]
- **Domestic& non-domestic Induction tariff rates** all in one flat rate.
- **100 largest non-domestic consumers** have fixed daily rates and variable rates based on level of consumptions.

The **rate design** provided low use consumers a lower rate and high use consumers a higher rate to promote efficient use of electricity.
The **three components of the tariff** are **Energy Charge, Debt Charge and Usage Charge.**

1. ***Debt Charge*** – covers the repayments of the Power Sector Expansion Project loan from the Ministry of Finance per month that determines the tariff two months later.
2. ***Energy Charge*** – covers the variable costs of generating electricity, and includes fuel and energy supplied from Independent Power Producers ("IPPs"). This component is reviewed every month and the actual costs for the mentioned components during the month.
3. ***Usage Charge*** – covers the operating costs as well as capital costs of EPC. This charge includes the costs of building and maintaining the transmission and distribution network, the provision of retail services (metering, billing, customer services, etc.) and company administrative costs (finance, human resources, head office, etc.)

EPC's **Financial Performance** in the FY 2019/2020 reflected a Net Profit of $5,089,063 compared to $11,560,957 FY 2018/2019[2]. This level of Net Profit resulted in EPC reaching its 3.5% return on equity (ROE) target through its efforts in cutting costs and improved efficiencies. No explicit allowance for ROE was included in the tariff.

The Directors approved the provision for dividend base on the 35% of its net profit for the year ended 30 June 2020.

[2] EPC Audited Financial Statements 30 June 2020

Section 2: Application Filing by EPC

2. 1 Tariff rates

The following issues indicated the changes in the proposed tariffs:

Issue 1: Calculating Usage Charge

EPC proposed the alteration of the usage charge based on the following factors:

i. ***Remove the Capital Expenditure (CAPEX) and replace with Depreciation costs***

- There has been significant variance between projected capital expenditure and actual capital expenditure. EPC takes on board the Regulator's concerns with regards to the CAPEX and the delays in implementation of Capital works.
- Future CAPEX has the potential to be relatively lumpy with materials, year to year variations which results in consequent year to year volatility in consumer electricity prices.

ii. ***VAGST status change***

- Currently, EPC under its zero rated VAGST status means all the operational and capital costs of EPC do not include the 15% for VAGST as these were refunded from the Ministry of Revenue ("MOR") via bi-monthly VAGST Returns. However, MOR has proposed to change this status to VAGST exempt which means that all VAGST components of costs need to be included in the operational and capital costs except for purchase of electricity from IPPs.
- This proposal by MOR is pending a decision by Cabinet however for budget purposes EPC has incorporated this change to be effective on 1st January 2022.

Issue 2: Addressing variations between expected and actual costs and demand

The recommended energy charge of $0.50sene/kWh is based on the average for the whole year; however, EPC proposed to maintain the current approach of having this component reviewed every month.

Every month the Energy Charge (EC) varies. Although this provides some level of comfort to EPC given the effective rate is based on actual costs. The two-month delay in its effectiveness provides uncertainties in the operation and causes confusion in consumers. Thus, EPC proposes to have:

- this component of tariff based on actual costs of fuel and have sought the Ministry of Finance ("MOF") for the release in advance of the cost of fuel so that the electricity tariffs are changed at the same time.
- However, MOF confirms that these figures are only made available to them on the last week of the month and changes reflected in the next month. It does not allow time for the existing approval process as well as publicizing the new rates for consumers before any changes in tariffs are effective.

The following table summarises the proposed rates requested by EPC for the next FY 2021/2022 compared to the last FY 2020/2021. EPC proposed to increase the usage charge by $0.02sene for all consumers.
Customers are grouped into different categories based on their characteristics:
Whether they have Cashpower or Postpay (a.k.a. "induction") meters – as indicated by a "_C" or "_I" suffix to their group
Whether they are domestic ("DM"), small non-domestic ("ND"), or large non-domestic, with this latter group being split into 6 different size bands ("FR1" to "FR6")

Table 1: Current compared to proposed rates

Details		FY2020/21	Details	Proposed FY2021/22
Domestic Induction		$	Domestic Induction	$
Debt Charge	All kWh	0.07	All kWh	0.07
Usage Charge	All kWh	0.28	All kWh	0.30
Energy charge	All kWh	0.43	All kWh	0.50
Total tariff		**0.78**		**0.87**

Domestic Cash Power		**$**	**Domestic Cash Power**	**$**
Debt Charge	All kWh	0.07	All kWh	0.07
Usage Charge	1-50	0.12	1-50	0.14
	>51	0.28	>51	0.30
Energy charge	All kWh	0.43	All kWh	0.50
Total tariff	1-50	**0.62**	1-50	**0.71**
	>51	**0.78**	>51	**0.87**
Non- Domestic Induction		**$**	**Non-Domestic Induction**	**$**
Debt Charge	All kWh	0.07	All kWh	0.07
Usage Charge	All kWh	0.31	All kWh	0.33
Energy charge	All kWh	0.43	All kWh	0.50
Total tariff		**0.81**		**0.90**
Non- Domestic Cash Power		**$**	**Non- Domestic Cash Power**	**$**
Debt Charge	All kWh	0.07	All kWh	0.07
Usage Charge	All kWh	0.31	All kWh	0.33
Energy charge	All kWh	0.43	All kWh	0.50
Total tariff		**0.78**		**0.90**

Section 3: Regulatory Process

Under Section 20 (1) and (2) of the Act, a licensee is required to apply in writing for approval of the tariff amendments, providing the necessary information as requested to support the changes. The Regulator then reviews the application with particular reference to Section 19 (3) of the Act. However, it is the applicant's major responsibility to justify to the Regulator its proposed tariff adjustments.

In the evaluation of EPC's proposal, the Regulator:

1. Examined its underlying assumptions in comparison with EPC's Audited Financial Statements for the FY ending 30 June 2020 and statements of previous FYs.
2. Ensured that the proposed tariffs are sufficient to enable EPC, if operating effectively, to meet its debt obligations, based on information verification from the Ministry of Finance.
3. Took into account legal requirement under the Electricity Act 2010, in particular:
   (1) Likelihood of tariff to recover costs and earn reasonable returns for EPC.
   (2) Ability of low-income households to pay for electricity.
   (3) Ease of understanding and in its application.
   (4) Conducting public consultations prior to making decision.
4. Considered the proposal and made a decision to accept, reject or modify the application within 6 months.

3.1 Tariff calculation methodology

Sub-sections 19 (1)-(3) of the Electricity Act 2010 ("the Act") requires the Regulator to set all tariffs charged by a licensee.

EPC's projected costs for 2021/22 are recovered under three main categories:

1. Energy – which covers the cost of purchasing diesel fuel and payments to independent power producers (IPPs). This is projected to be **$77.7**million tala.

2. Debt – being the costs of servicing the loans taken by EPC to fund its activities. This debt service cost is projected to be **$10.6m**
3. Usage – being the recovery of all other EPC costs. This is projected to be **$51.6m.**

All cost categories are allocated to customer groups in proportion to the expected GWh consumption for that group in 2021/22. Costs are recovered from domestic ("DM") and small non-domestic ("ND") customers from an entirely variable $/kWh tariff, with the level of the tariff being equal to the $m allocated cost divided by the expected GWh consumption for that group. This is also true for the recovery of Energy costs from large non-domestic consumers.

However, some proportion of the recovery of Debt and Usage costs, is recovered via fixed daily charges:
For FR1 to FR3 customers, 75% of Debt and Usage costs are recovered via fixed $/day charges, thereby reducing the variable Debt and Usage charges to 25% of the level for DM and ND consumers.
For FR4 to FR6 customers, 50% of Debt and Usage costs are recovered via fixed $/day charges, thereby reducing the variable Debt and Usage charges to 50% of the level for DM and ND consumers.

- Debt + Usage costs allocated to each band pro-rata to estimated total consumption for each band
- Level of daily fixed charge = Total Debt+Usage costs allocated to band * Fixed factor ÷ number of customers in band ÷ 365 days in year
- Fixed factor = proportion of Debt+Usage costs to be recovered via fixed charge. = 75% for bands 1 to 3, and 50% for bands 4 to 6.
- Variable Debt + Usage charges = Standard variable charge for Small Non-Domestic customers * (1 – Fixed factor)

3.2 Breakdown of recommended tariff rates for each component
The following sections present the Regulator's recommended rates for the 3 components of the electricity tariff: debt charge, energy charge and usage charge, for the regulated financial years 2021/2022 -2023/2024.

1. Debt charge

EPC signed a Subsidiary Financing Agreement with the Government of Samoa for Power Sector Expansion Project (PSEP) in June 2016. The main Financing Agreement is between the Government of Samoa and the Asian Development Bank. The total project was USD$100million dollars but total repayable borrowings amount to USD$85million dollars. The interest rate was reduced from 6.5% to 2%.

The repayments fall into two separate tranches- 1st tranche has a repayment period of 25years commencing in 2013 with a grace period of 5 years at 2% interest rate. The 2nd tranche has a repayment period of 28 years commencing in 2016 including a grace period of 8 years at 2% interest rate.[3]

With verification of the figures provided in the EPC Audited Financial Statements for the Year ended 30 June 2020, **the Regulator approves the proposed "debt charge" of $0.07 sene/kWh to cover debt servicing costs of EPC PSEP Loan Repayments.**

Table 2: Debt Charge Component

DESCRIPTION	2021-2022
PSEP Loan Repayment	10,523,114.82
Sales Production(kWh)	**156,811,522**
	0.07

2. Energy Charge

The Regulator determines the energy charge of **$0.43sene** based on actual costs of fuel & IPP costs of July 2021. OOTR team met with representatives from MOF & EPC to discuss proposal by EPC to use actual fuel cost for each month. The outcome of this meeting was that EPC and MOF need to sign a confidentiality agreement in order for MOF to early release the fuel costs data. Therefore, until this agreement is signed the current monthly process of energy charge approval remains.

EPC shall submit information for the energy charge calculation which shall be **monitored and reviewed by the Office of the Regulator on a monthly basis** using this formula:

[3] EPC Audited Financial Statements 30 June 2020

{[total cost of fuel and lube oil to generate electricity] + [total invoice from IPP paid by EPC for feed in power]}/{ total kWh electricity sold to consumers that month}.

3. Usage Charge

The usage charge for domestic Cash power consumers is currently set with two tiers based on kWh usage per month. The 2 tiers are: 1 to 50kWh and 51 above kWh per month. EPC proposed to maintain this tariff structure.

The following issues were previously raised in past applications by EPC in which the Regulator had already made a determination on[4], however this reiterates the position of the Regulator on the following factors affecting the usage charge.

1. **Replacing Capital Expenditure with Depreciation costs:**
   EPC's Development Plan which will include its Investment Plan is one of EPC's major projects for the next financial year, hence in its MYT submission EPC did not provide a **Power System Expansion Plan (PSEP)** as required under the Electricity Act 2010 Section 27(3) against which capital expenditure proposals can be judged.

   The development of a PSEP is critical to promote transparency. All existing capital assets have been paid for by consumers through the tariff (with the exception of PSEP assets, which are in the debt charge), hence no depreciation is included in the tariff at present. For the same reason, there are no grounds to introducing a depreciation allowance as it would result in EPC recovering the capital costs of the same assets more than once.
   EPC's proposal, by not including capital expenditure, effectively makes the PSEP redundant, which can be argued is in contravention with the Electricity Act. The Regulator agrees with EPC on the benefits of a stable capital allowance, this can be better achieved through the setting of a 3-year path for capital expenditure, which can be adjusted (or not) each year depending on performance.

[4] https://www.regulator.gov.ws/images/ORDERS/Electricity/2019/ORDER2019-E68-FinalDetermination.pdf

2. **VAGST change in status from zero rated to exempt**
EPC is currently registered under the VAGST Act 2015 as zero rated. In 2020 MOR and its Board submitted a Cabinet Submission whereby they requested to change EPC zero rated status to exempt which is still pending a Cabinet decision. Currently EPC's VAGST receivable is recovered from MOR through its VAGST returns on a bi-monthly basis which means no VAGST was included in all costs of operations of EPC. Hence, once the new policy change is approved by Cabinet, EPC needs to include all VAGST components of costs in the operational and capital costs.
Therefore, since this policy change is still pending Cabinet approval, the Regulator determines to exclude incorporating these costs in the current FY2021/2022.

In view of the above findings, **the Regulator determines to disapprove the proposed increases in usage charge and recommends retaining the current structure and usage charge rates** as follows:

Table 3: The Regulator's recommended "Usage Charge" for the FY2021/22

Structure	EPC Proposal	Structure	FY2021/2022
Induction Meters	**sene/kWh**	**Induction Meters**	**sene/kWh**
All kWh	0.33	All kWh	0.31
Cash Power Meters			
1 to 50 kWh	0.14	1-50 kWh	0.12
>50kWh	0.30	>50kWh	0.26
Induction Meters			
All kWh	0.33	All kWh	0.31
Cash Power Meters			
All kWh	0.30	All kWh	0.26

Section 4: Determination

Based on the above review of EPC's tariff proposal, the Regulator determines:

1. The Capital Expenditure remains a component of the usage charge and not replaced by Depreciation costs as this is more aligned with the PSEP required under the Electricity Act, Section 27(3). EPC to submit PSEP by December 2021.
2. The incorporation of VAGST costs will only become effective once the Cabinet approval of policy changed is issued. Thus, these costs are not factored in the tariffs for FY2021/2022.
3. The tariff is inclusive of an energy charge to be submitted by EPC on a monthly basis which may vary depending on diesel price fluctuations and feed in power capacity of IPPs. The energy charge is subject to review and approval of the Regulator on a monthly basis. The current process for approval still remains until such time MOF and EPC signs a confidentiality agreement and the actual fuel costs could then be used for calculation of energy charge.
4. EPC is to action measures to address outstanding issues raised by consumers during the Smart Meter project roll-out.
5. The Regulator determines the following tariff rates for Financial Year 2021/2022.

Table 4: Approved Tariffs for 2021-2022

DOMESTIC	**Debt charge**	**Usage Charge**	**Energy Charge**	**Total Tariff**
Induction Meters	**sene/kWh**	**sene/kWh**	**sene/kWh**	**sene/kWh**
All kWh	0.07	0.26	0.43	**0.76**
Cash Power Meters				
1 to 100 kWh	0.07	0.12	0.43	**0.62**
101 kWh and over	0.07	0.26	0.43	**0.76**
NON DOMESTIC				
Induction Meters				
All kWh	0.07	0.31	0.43	**0.81**
Cash Power Meters				
All kWh	0.07	0.26	0.43	**0.76**

The Regulator in consideration of all factors, including information discovered during this review, hereby issues **Order No. 2021/E80** with regards to proposal by EPC 15 June 2021.

Signed and Dated 24th August 2021

Lematua Gisa Fuatai Purcell
REGULATOR