Energy and Water Utilities Regulatory Authority

In the matter of Application by the

TANZANIA ELECTRIC SUPPLY COMPANY LTD

For a Multi-Year Tariff Adjustment

Background

1. On 11th October 2013 the TANZANIA ELECTRIC SUPPLY COMPANY LIMITED ("TANESCO"), submitted to the Energy and Water Utilities Regulatory Authority ("EWURA") ("the Authority") an application for a multi-year tariff adjustment and approval of four regulatory actions:

(a) system wide tariff adjustments over three years from 1st October, 2013. The proposed tariff increases were 67.87% effective from 1st October 2013, 12.74% effective from 1st January 2014 and 9.17% effective from 1st January 2015;

(b) approval of two indexation clauses designed to adjust tariffs periodically for changes in fuel costs and macro-economic factors which are outside of TANESCO control to ensure that it remains financially viable;

(c) consideration on subsidized connection service line charges; and

(d) approval of charges on other electricity related activities.

2. In determining TANESCO's Application, the Authority has been guided by the EWURA Act, Cap. 414, the Electricity Act, Cap. 131, the Energy Policy of 2003 and the EWURA Tariff Applications Guidelines of 2009. Sections 23(2) and 24(2) of the Electricity Act require the Authority to make amendments or review tariffs charged by a licensee once in every three years to allow for price stability in the electricity sub-sector.

3. The Authority, based on those guiding clauses and the Cost of Service Study performed by an Independent Consultant, AF-MERCADOS, has determined the multi-year tariffs which take into account sustainability of electricity services in the country.

Tariff Review Justification

4. According to TANESCO, the proposed tariff adjustments will enable it to finance its operational costs and capital investment program (CIP); demonstrate its bankability to donors offering concessionary loans and grants; increase capacity needed to meet system peak demand; and adequately fund repairs and maintenance of its infrastructure in order to ensure consistent and stable supply of electricity.

Stakeholders' Consultation

5. Pursuant to section 19(2)(h) of the EWURA Act, EWURA conducted an Inquiry into the reasonableness of the Multi-year tariffs. The inquiry process commenced on 7th November 2013 and was concluded on 4th December 2013. Public notices regarding the Inquiry process were posted in widely circulated newspapers and in the EWURA website to seek stakeholders' views and comments on the reasonableness of the Application. The Inquiry included four public hearing meetings held in Iringa and Shinyanga on 15th November 2013; Bagamoyo on 20th November 2013; and in Dar es Salaam region on 22nd November 2013.

6. During the consultation process, the Government Consultative Council ("GCC") and EWURA Consumers Consultative Council ("EWURA CCC") convened meetings, on 11th November 2013 and 10th November 2013, respectively, to examine and comment on the reasonableness of the multi-year tariff adjustment application. The Public was given an opportunity to submit to EWURA written comments on the application.

7. The GCC was concerned about the high proposed tariff increase of 67.87%, which it thought could fuel inflation, consequently leading into high cost of living. GCC was also concerned that the transmission and distribution losses of 24.97% for the year 2013 are high compared to the current industrial standard of 15%. The Council was also concerned with rampant power theft and large percentage of operational costs caused by high dependency on Emergency Power Plants.

8. Furthermore, the GCC was unease with the Revenue Requirement Methodology used by TANESCO to establish the proposed tariff instead of using results of the Cost of Service Study done by AF MERCADOS. The Council was of the opinion that the proposed use of indexation formula will make tariffs unpredictable. GCC also proposed that it is time that TANESCO be restructured to increase operational efficiency of the Company and make it more effective and efficient in service delivery.

9. The CCC was against TANESCO's huge proposed increase of tariff which is far above that recommended by an Independent Consultant. It argues that the proposed tariff hike from October 2013 to December 2015 resembles the emergency tariff increase of 155% proposed by TANESCO in November 2011. The CCC was concerned that the proposed new connections of 250,000 annually from 2014 appear to be over ambitious considering the actual connections achieved. It was also of the opinion that TANESCO not being able to meet its sales target is not due to the loss of major customers like the mines, but rather due to high electricity tariffs and poor or unreliable power supply.

10. The Public was concerned that the high increase in tariff may impact the economy by reducing the competitiveness of industries which in turn will lead to loss of employment. The Public was also of the opinion that the Cost of Service Study should be considered in the determination of tariffs. In addition, the Public was of the opinion that TANESCO should improve operational efficiency and the quality and reliability of power.

11. TANESCO responded to comments raised by various stakeholders by giving out the following resposes to stakeholders comments: (a) justifications for the proposed tariff increase is provided in the application (Refer Section 1 of this Order). The Company is of the view that the effect to industries and mines on electricity cost after the tariff increase is lower than the electricity cost incurred by industries through the mix of TANESCO power and industries' own power generation; (b) For this year, the Company has met the new customer connection targets such that by the end of October 2013, 125,000 new customers were connected and 25,000 new connection are expected by the year end; (c) The Company is working in reduction of transmission and distribution losses; and (d) The use of EPPs will be substituted by gas plants from the year 2015.

12. At the closure of the Inquiry process on 4th December 2013, EWURA had gathered satisfactory and adequate information to prudently determine the application.

13. On 6th December 2013, EWURA conducted an Exit Meeting, where key stakeholders, including the Ministry of Energy and Minerals (MEM); TANESCO; Zanzibar Electricity Corporation (ZECO); Confederation of Tanzania Industries (CTI); CCC; GCC; Association of Cement Manufacturers; and Aluminium Africa Limited (ALAF); attended the meeting. All comments, clarifications and suggestions gathered during

the exit meeting were incorporated in the determination of the tariff decision.

Analysis and Adjustment

14. As a result of the Inquiry and Evaluation process, EWURA concluded that the proposed multi-year tariff and charge increase by TANESCO were reasonable except for some key elements discussed in Paragraphs 15 to 17 below which were adjusted to reach at a reasonable and fair decision.

15. EWURA used the Rate Setting Methodology, that was developed during the Cost of Service Study by AF-MERCADOS, to determine the revenue requirement of TANESCO. The recommended approach considers the determination of efficient costs necessary to meet the existing and future loads with the resulting capacity and energy charges linked to the efficient expansion of generation and network facilities. The methodology is designed to determine cost-reflective tariffs that cover all the allowed costs in the power system and allocate such costs to each customer category according to the cost they impose on the power system, which is consistent with section 23(2)(f) of the Electricity Act.

16. EWURA adjusted some inputs to the tariff model to reflect the actual performance of TANESCO and the electricity subsector as a whole for the year 2013. Assessment of 2013 generation plan (as submitted by TANESCO) against the actual performance revealed that there were significant differences. To determine 2013 generation cost, actual data for the period between January and October and estimates for November and December were used. For the years 2014 and 2015, assessment of actual utilization of hydro plants was done over the period between 2007 and 2013 and the results used to estimate the units of electricity generation from the hydro plants. Based on the estimated demand and least cost dispatch principle, all estimated units to be generated from hydro plants were considered first to meet the projected demands for the years 2014 and 2015. The rest of demand was fulfilled by thermal plants consistent with least cost principle. Other basic assumptions including heat rates, yearly fixed costs and variable costs for respective plants were maintained as given in the Cost of Service Study.

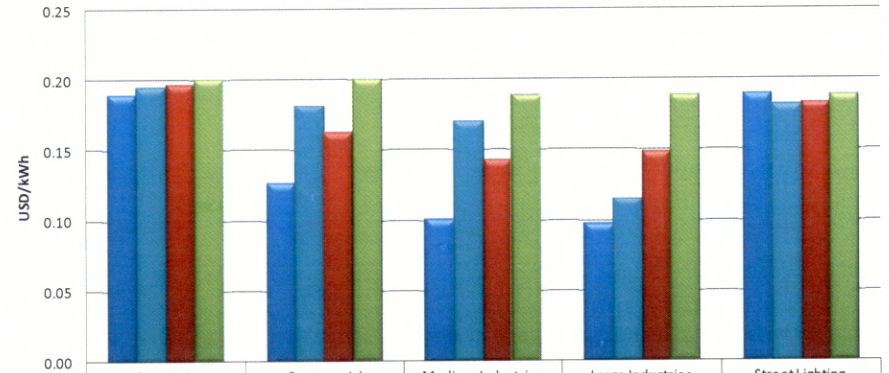
17. EWURA analysed TANESCO's proposed Fuel Adjustment formula (fuel indexation mechanism) and noted that TANESCO's proposal lacks some key regulatory monitoring parameters such as Specific Fuel Consumptions (Heat Rates) of thermal power plants. On Inflation and Exchange Rate Fluctuation Adjustments, TANESCO proposed to use published reports by the Bank of Tanzania as opposed to the methodology that was derived by EWURA in the adjustment formula.

Therefore, EWURA's Fuel Adjustment and Foreign Exchange Rate Fluctuation Adjustment that was established in the First Schedule, of Rule 7(2) of Electricity (Tariff Setting) Rules, 2013 will be used.

Tariff Comparison

18. A comparison of electricity tariffs in East Africa reveals that Tanzania's new tariffs (energy charge), particularly for commercial and industrial customers are lower than tariffs in other countries as shown in Figure 1. However, it is observed that there are differences in tariff structures, policies, taxes and levies in the respective countries which would have differing bill impacts to customers.

Figure 1: TARIFF COMPARISON IN EAST AFRICA



	Domestic	Commercial	Medium Industries	Large Industries	Street Lighting
TANZANIA	0.19	0.13	0.10	0.10	0.19
UGANDA	0.20	0.18	0.17	0.12	0.18
KENYA	0.20	0.16	0.14	0.15	0.18
RWANDA	0.20	0.20	0.19	0.19	0.19

Source: EWURA, ERC, EWSA, ERA.

Decision

19. The Board of Directors of EWURA having met on 10th December 2013 to consider this matter decided as per the Order below:

THE ELECTRICITY ACT

(CAP. 131)

ORDER No. 13-007

(Made under section 23(2) and 24(2))

THE TANZANIA ELECTRIC SUPPLY COMPANY ("TANESCO") MULTI-YEAR TARIFF ADJUSTMENT ORDER, 2013

Citation

1. This Order shall be cited as the Tanzania Electric Supply Company ("TANESCO") Multi-Year Tariff Adjustment Order, 2013.

Commencement Date

2. This Order shall come into force on 1st January 2014.

Tariffs and Charges

3. - (1) TANESCO tariffs and charges to be effective from 1st January 2014 are hereby as specified in the First Schedule and Second Schedule to this Order. The approved tariffs imply an average increase of 39.19% compared to the current tariffs.

(2) The approved tariffs and charges shall remain in force until 31st December 2016 unless results of a Cost of Service Study that will be undertaken in 2015 will recommend new tariffs.

Planned Investments

4. - (1) TANESCO shall implement the identified projects in the Capital Investment Program of TANESCO as detailed in the Third Schedule to this Order using its own funds to be generated from the approved tariffs.

(2) EWURA may adjust TANESCO tariffs at the end of 2014 and/or 2015 where it is proved that TANESCO has failed to implement any of the projects in the Third Schedule. The adjustment will be based on estimated value of projects which would have not been implemented.

Planned Units to be added in the Distribution Network

5. TANESCO shall, in expanding and maintaining the distribution network, implement the addition of Physical Units in the Distribution Network as prescribed in the Fourth Schedule.

Fuel Cost, Inflation and Exchange Rate Adjustment

6. The Authority shall, pursuant to Sections 23(2)(d)and 23(3) of the Electricity Act, adjust tariff to reflect changes in the cost of fuel, inflation and currency fluctuation. The adjustments shall be done as prescribed in Rule 7 of the Electricity (Tariff Setting) Rules, 2013.

Disconnection and Reconnection Charges

7. Disconnection and reconnection charges are TZS 7,000 exclusive of VAT.

Compensation for Tampered Meters

GN No. 63/2011

8. Compensation for tampering with TANESCO Metering System for D1, T1, T2 and T3 customers shall be as stipulated in the Electricity (General) Regulations.

Conditions

9. TANESCO shall:

(a) strictly follow the least cost merit order dispatch and submit to the Authority, on a monthly basis, reports showing the actual generation and generation plan as proposed by this Order;

(b) also ensure that the procured projects are in line with the demand and capacity requirement as approved in the Power System Master Plan; all new power projects are procured competitively in line with the Electricity Act, the Public Private Partnership Act, 2010 and the Public Procurement Act, 2011, and Rules and Regulations made thereunder;

(c) submit on quarterly basis to the Authority the supply and reliability data of 11kV, 33kV, 66kV, 132kV, and 220kV by Region for verification. This includes total duration of customer interruptions in hours per feeder, planned outages, unplanned outages, total number of outage per feeder, total number of customers served per feeder, total number of customers affected per feeder, total unserved energy in kWh;

(d) submits to the Authority for approval, within three months after coming into force of this Order, a plan for implementation of the Demand Side Management Programme;

(e) reduce technical and non-techinical losses in the distribution network from the level of 19% in 2012 to a level of 15.1% in 2015;

(f) designs strategies for fighting illegal connections and eliminate delays in service provision pursuant to the Customer Service Charter;

(g) permantly transfer a D1 customer to the T1 customer category in the event that such D1 customer consumes more than 75kWh per month for three consecutive months;

(h) submit to the Authority a plan for increasing the installation of LUKU meters and Automatic Meter Readers to customers using convetional meters so as to reduce post paid customers and receivables;

(i) submit to the Authority, quarterly reports on efforts made to collect revenues from outstanding debtors;

(j) take the necessary efforts in order to disseminate, to its customers, the Customer Service Charter and further ensure that it always handles customer complaints as required by its Customer Service Charter, the Electricity (General) Regulations and the Energy and Water Utilities Regulatory Authority (Consumer Complaints Settlement Procedure) Rules;

GN No. 10/2013

(k) submit to the Authority, an application for periodic adjustments of tariffs taking into account changes in fuel costs, inflation and currency fluctuations. Calculations for tariff adjustments shall be as prescribed in Rule 7 of

the Electricity (Tariff Setting) Rules, 2013;

(l) continues to provide the Authority with information about its financial and operating condition in accordance with the requirements of the Authority. This information will be used by the Authority to evaluate TANESCO's performance in comparison with other utilities in the region and the improvement of its performance over time. This evaluation will be considered by the Authority in determing the reasonableness of all future requests for tariff and periodic adjustments; and

(m) it submits to the Authority on or before 31st March 2014 the implementation plan of each Condition of this Order.

Revocation

10. The Tanzania Electric Supply Ltd Company Limited ("TANESCO") Tariff Adjustment Order No. 001-013 of 24th January 2013 is hereby revoked.

FIRST SCHEDULE:

APPROVED TARIFFS

Customer Category	Component	Unit	Existing Tariff	Approved Tariff		Increase (TZS)
				2014	2015	2014
D-1	Service Charge	TZS/month	-	-	-	-
	Energy Charge(0 - 75 kWh)	TZS/kWh	60	100	100	40
	Above 75 kWh	TZS/kWh	273	350	350	77
T-1	Service Charge	TZS/month	3,841	5,520	5,520	1,679
	Energy Charge	TZS/kWh	221	306	306	85
	Maximum Demand Charge	TZS/kVA/month	-	-	-	-
T-2	Service Charge	TZS/month	14,233	14,233	14,233	0
	Energy Charge	TZS/kWh	132	205	205	73
	Maximum Demand Charge	TZS/kVA/month	16,944	15,004	15,004	-1,940
T-3_MV	Service Charge	TZS/month	14,233	16,769	16,769	2,536
	Energy Charge	TZS/kWh	118	163	163	45
	Maximum Demand Charge	TZS/kVA/month	14,520	13,200	13,200	-1,320
T-3_HV	Service Charge	TZS/month	14,233	-	-	-14,233
	Energy Charge	TZS/kWh	106	159	159	53
	Maximum Demand Charge	TZS/kVA/month	12,079	16,550	16,550	4,471

Key

D1: Low Usage Tariff for Domestic customers who on average consume less that 75 kWh per month. Any unit exceeding 75 kWh is charged a higher rate of TZS 350/ kWh. Under this category, power is supplied at a low voltage, single phase (230 V).

T1: General Usage Tariff for customers including residential, small commercial and light industrial use, public lighting, and billboards. Power is supplied at low voltage single phase (230V) as well as three phase (400V).

T2: Applicable to general use customers where power is metered at 400V and average consumption is more than 7,500kWh per meter reading period and demand does not exceed 500kVA per meter reading period.

T3_MV: Applicable to customers connected at Medium Voltage.

T3_HV: Applicable to customers connected at High Voltage including ZECO, Bulyanhulu, Twiga Cement

SECOND SCHEDULE:

APPROVED CHARGES

Table 1: Single Phase Charges

Service Line	Cost Reflective connection Charges TZS (VAT exclusive)	Requested Connection Charges (TZS)			Approved Connection Charges (TZS)		
		Urban Subsidized Rate TZS (VAT exclusive)	Rural Subsidized Rate TZS (VAT exclusive)	Lindi and Mtwara Subsidized Rate TZS (VAT incl.)	Urban Subsidized Rate TZS (VAT exclusive)	Rural Subsidized Rate TZS (VAT exclusive)	Lindi and Mtwara Subsidized Rate (Only up to 30th June 2014) TZS (VAT incl.)
Within 30 Meters	385,682	272,000	150,000	99,000	272,000	150,000	99,000
Within 70 Meters (one pole)	1,145,664	436,964	286,220	N/A	436,964	286,220	N/A
Within 120 Meters (two poles)	1,696,120	590,398	385,300	N/A	590,398	385,300	N/A
Application fee	5,000	5,000	5,000	5,000	5,000	5,000	5,000

Tables 2: Three Phase Charges for Urban and Rural Areas

Service Line	Meter Type	Cost Reflective Connection Charges TZS (VAT excl.)	Requested Connection Charges (TZS)			Approved Connection Charges (TZS)		
			Urban Subsidized Rate TZS (VAT excl.)	Rural Subsidized Rate TZS (VAT excl.)	Lindi and Mtwara Subsidized Rate TZS (VAT incl.)	Urban Subsidized Rate TZS (VAT excl.)	Rural Subsidized Rate TZS (VAT excl.)	Lindi and Mtwara Subsidized Rate (Only up to 30th June 2014) TZS (VAT incl.)
Within 30 Meters (cable 16mm^2)	LUKU	772,893	772,893	772,893	99,000	772,893	772,893	99,000

Within 30 Meters (cable 16mm^2)	AMR	880,772						
Within 30 Meters (cable 35mm^2)	LUKU	913,202						
Within 30 Meters (cable 35mm^2)	AMR	1,028,850						
Within 70 Meters (one pole)	LUKU	1,799,062	1,058,801	1,058,801	N/A	1,058,801	1,058,801	N/A
Within 70 Meters (one pole)	AMR	1,906,939						
Within 120 Meters (two poles)	LUKU	2,604,391	1,389,115	1,389,115	N/A	1,389,115	1,389,115	N/A
Within 120 Meters (two poles)	AMR	2,712,271						
Application fee		5,000	5,000	5,000	5,000	5,000	5,000	5,000

Note: The subsidized connection charges for Single and Three Phase for Lindi and Mtwara will end on 30th June 2014. From 1st July 2014, connection charges for the two regions will be the approved rates for Urban and Rural connections charges.

Table 3: Charges for Installation of a Meter in case of Damage due to Meter Tampering/Broken

Customer Category	Description	Requested Charges TZS (VAT exclusive)	Approved Charges TZS (VAT exclusive)
D1& T1	LUKU (Single Phase)	60,000	60,000
	LUKU (Three Phase)	200,000	200,000
	AMR (Three Phase)	300,000	300,000
T2	CT – Operated Meters	1,200,000	1,200,000
T3	CT/VT Operated Meters	1,200,000	1,200,000

Table 4: Meter Testing Fees

Customer Category	Current Charges TZS (VAT exclusive)	Proposed Charges TZS (VAT exclusive)	Approved Charges TZS (VAT exclusive)
D1	3,000	5,000	0
T1	3,000	5,000	0
T2	30,000	50,000	0
T3	50,000	100,000	0

Table 5: Testing and Inspection of Installation Charges

Customer Category	Requested Charges in TZS (VAT exclusive)	Approved Charges in TZS (VAT exclusive)
D1	20,000	20,000
T1	20,000	20,000
T2	30,000	30,000
T3	50,000	50,000

Table 6: Temporary Power Supply Charges

Customer Category	Description	Requested Charges TZS (VAT exclusive)	Approved Charges TZS (VAT exclusive)
T2	Application Fee	5,000	5,000
T3		5,000	5,000
T2	Connection Fee	Full Cost plus 10%	Full Cost plus 10%
T3		Full Cost plus 10%	Full Cost plus 10%
T2	Meter Deposit	200,000	200,000
T3		500,000	500,000

Table 7: Energy Deposit for Post-paid Meters

Customer Category	Description	Requested Charges TZS (VAT exclusive)	Approved Charges TZS (VAT exclusive)
D1	Single Phase	30,000	30,000
T1	Single Phase	30,000	30,000
T1	Three Phase	150,000	150,000
T2	Three Phase	200,000	200,000
T3	Three Phase	500,000	500,000

THIRD SCHEDULE:

APPROVED CAPITAL INVESTMENT PROJECT (CIP) TO BE FUNDED BY TANESCO IN 2014 -2015

The approved CIP to be funded by TANESCO amounts to TZS 908.4 billion in 2014 and TZS 449.0 billion in 2015 as shown in Tables 1, 2 and 3 below:

Table 1: Transmission Projects

Transmission Projects	2014 TZS 'm	2015 TZS 'm	Total TZS 'm
Makambako - Songea (220kV)	12,000	--	12,000
Upgrade of Kipawa Transmission Line (132kV) 2nd Line	109	--	109
Expansion of Fibre Optic Network	1,103	--	1,103
Hydro-Thermal Scheduling and Optimisation	--	8,000	8,000
Tools and Equipment	1,203	400	1,603
New Electrical Workshops	779	--	779
Replacement of Obsolete Control and Switchgear Protection	13,585	4,000	17,585
Compensation of Backbone Project	5,339	--	5,339
Standby Generator for Control Centres	228	--	228
Geita - Nyakanazi (220kV)	16	--	16
Rehabilitation of Ubungo - Chalinze - Hale (132kV)	4,080	2,040	6,120
Other Transmission Projects	1,373	200	1,573
Total Funds for Transmission Projects	**39,814**	**14,640**	**54,454**

Table 2: Distribution Projects

Distribution Projects	2014 TZS 'm	2015 TZS 'm	Total TZS 'm
New Projects for 100,000 customers	479,320	264,574	743,894
Service Line Cost within (30m) for 150,000 customers	161,512	80,756	242,268
On-going Distribution Projects	107,019	52,497	159,515
Electrification of Ukami Village	250	--	250
Distribution Projects in Magindu, Mbwewe, Mgwashi and Kiwanga	25	--	25

Total Funds for Distribution Projects	748,126	397,827	1,145,953

Table 3: Other Projects

Other Projects	2014 TZS 'm	2015 TZS 'm	Total TZS 'm
Motor Vehicles	17,305	10,500	27,805
Other Corporate Services Projects	34,426	13,092	47,518
Rehabilitation and Upgrade of Hydro Plants	36,337	12,933	49,271
Mtwara 300MW Project – Wayleave Compensation	25,355	--	25,355
Tools and Equipment for Thermal Generation	4,000	--	4,000
REA Projects	2,500	--	2,500
LKHP Environmental Management	350	--	350
Wind Projects	193	--	193
Total Funds for Other Projects	**120,466**	**36,525**	**156,992**

FOURTH SCHEDULE:

PLANNED PHYSICAL UNITS BY TYPE OF ASSET TO BE ADDED TO THE DISTRIBUTION NETWORK EACH YEAR FROM 2013 – 2015

(Physical Units)	Units	2013	2014	2015
MV/LV transfomer - urban	Number	1,103	1,661	2,650
MV/LV transfomer - rural	Number	2,355	3,047	4,449
MVA MV/LV transfomer - urban	MVA	213	321	512
MVA MV/LV transfomer - rural	MVA	118	152	222
MV Distribution Network – urban	Km	2,075	3,107	4,957
MV Distribution Network – rural	Km	6,545	8,469	12,365
LV Distribution Network – urban	Km	4,150	4,150	4,177
LV Distribution Network – rural	Km	3,625	3,625	3,625
New transformers in old MV/MV Substation	Number	1	1	6
New MV/MV substations	Number	7	7	11

Dar es Salaam

10th December, 2013

HARUNA MASEBU

Director General