

In the matter of an Application for a Tariff and Charges Adjustment by the

**TANZANIA ELECTRIC SUPPLY COMPANY LIMITED**

THE ELECTRICITY ACT  
(CAP. 131)

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**THE ELECTRICITY  
(TANZANIA ELECTRIC  
SUPPLY COMPANY  
LIMITED)  
(TARIFF  
ADJUSTMENT), ORDER,  
2010**

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**ORDER №. 010-019**

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*(Made under section 23)*

Citation            1. This Order may be cited as the Electricity (Tanzania Electric Supply Company Limited (TANESCO) (Tariff Adjustment) Order, 2010.

Background        2. On 28<sup>th</sup> May 2010 TANESCO submitted an application for review and approval of four regulatory actions:

- (a) system wide tariff adjustments over three years from 1<sup>st</sup> January, 2011. The proposed tariff increases were 34.6% in 2011, 13.8% in 2012 and 13.9% in 2013. According to TANESCO, the requested tariffs will enable it to demonstrate its bankability to donors, increase capacity needed to meet system peak demand and to adequately fund Repair and Maintenance (R&M) Programme to ensure a stable supply of electricity;
- (b) rebalancing of tariffs by class as part of 2011 tariff adjustment and applying average tariff adjustments to 2011 tariffs for years 2012 and 2013;
- (c) 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; and

- (d) approval to establish a pilot program of Time of Use (TOU) tariffs for its largest customers with a view toward offering a formal TOU tariff in 2012 on an optional basis; this tariff will help shift demand away from times when the most expensive marginal generation must be dispatched.

Stakeholders'  
Consultation

3. Pursuant to section 19(2) (h) of the Energy and Water Utilities Regulatory Authority Act, Cap. 414, EWURA conducted an inquiry on TANESCO's Application by holding public meetings and posting public notices in widely circulated newspapers and by posting the application on EWURA's website. Public inquiry meetings were held in Mwanza and Mbeya regions on 12<sup>th</sup> August, 2010; in Kilimanjaro and Tabora regions on 17<sup>th</sup> August, 2010; and in Dar-es-Salaam on 27<sup>th</sup> August, 2010. Furthermore, an Exit Conference with key stakeholders was held on 30<sup>th</sup> November 2010 to receive comments on the draft Order.

4. During the inquiry, TANESCO made presentations explaining the basis of the Electricity Tariff Application and the justification of the proposed tariff increase. All stakeholders including the public, Government Consultative Council (GCC), Consumers Consultative Council (CCC), and registered interveners were given an opportunity to examine and comment on the reasonableness of the TANESCO Tariff Review Application. TANESCO had a chance to respond to stakeholders' comments by submitting written responses to EWURA and all stakeholders had equal chance to be heard.

5. CCC was concerned, among other things, about the unsatisfactory Cost of Service Study (COSS) prior to setting tariffs, high system losses of about 26%, special tariff (T6) to TANESCO staff at TZS 4.9/kWh, a low customers to staff ratio of about 130 in 2008, the proposed high tariff rates increase of 62% in three years, reliability of Capital Investment Programme (CIP) estimates and collection efficiency of 96%. On the other hand, GCC was concerned, among other things, about lack of power supply reliability especially to big customers, low connection target of 100,000 new customers per annum compared to population growth, and increasing trends of operating costs. The public was concerned, among other things, about TANESCO's failure to improve the services after the 2007 tariff approval, lack of responsiveness to customer needs and operational inefficiency, and doubted TANESCO's ability and willingness to improve quality of the services even if the proposed tariffs are approved.

6. At the closure of the inquiry process on 10<sup>th</sup> September 2010, TANESCO had reasonably responded to stakeholders' comments and EWURA had gathered satisfactory and adequate information to prudently determine the application. During the review, TANESCO was requested to provide supplementary information in support of its application.

7. Further comments were received during the Exit Conference attended by the Ministry of Energy and Minerals (MEM), ZECO, CCC, Rural Electrification Agency, and TANESCO. EWURA took into consideration all stakeholders' comments in the determination of the Application.

Decision

8. The Board of Directors of EWURA having met on 15<sup>th</sup> and 18<sup>th</sup> December, 2010 to consider this matter decided as follows:

- (a) That a system wide electricity tariff adjustment to cover three years from 1<sup>st</sup> January, 2011 to 31<sup>st</sup> December, 2013 is deferred until when a credible COSS is carried out by an independent expert to be engaged by EWURA. The current COSS was considered unsatisfactory for the following reasons:
  - (i) TANESCO did not ascertain costs of services for generation, transmission, and distribution segments to the satisfaction of the Authority;
  - (ii) most of the assumptions and concepts as well as the data used are short of reflecting the true Cost of Service; and
  - (iii) the cost drivers used in the COSS were theoretically assumed and not clearly defined for assessment of their prudence.
- (b) That in the event that COSS referred to in paragraph 9(a), takes longer than a year, the Authority may review the tariff in line with the Electricity Act, Cap. 131.
- (c) That the Revenue Requirement of Tanzanian Shillings Six Hundred Ninety One Billion Seven Hundred Fifty Seven Million Nine Hundred Sixty Two Thousand Two Hundred Seventy Five (TZS 691,757,962,275.00) equivalent to an average increase of 18.5% of the current tariff as contained in Table 1 is approved.

**Table 1: Approved Revenue Requirement:**

DESCRIPTION	2007	2011	
	APPROVAL (TZS MILLION)	REQUESTED (TZS MILLION)	APPROVED (TZS MILLION)
<b>OPERATING &amp; MAINTENANCE EXP:</b>			
Own Generation Costs	50,501	184,916	139,293
Purchased Electricity	269,772	165,428	220,537
Repair and Maintenance	56,447	23,567	23,567
Staff Costs	68,343	118,046	112,381
Other Expenses	22,771	102,397	39,503
Provision fo Doubtful Debts	-	31,422	12,056
<b>SUB-TOTAL</b>	<b>467,834</b>	<b>625,776</b>	<b>547,337</b>
<b>FINANCING COSTS:</b>			
Depreciation	-	-	66,776
TANESCO CIP (Customer Contribution)	-	125,438	39,835
Loan Repayment (Interest + Principal)	42,394	138,872	159,703
<b>SUB-TOTAL</b>	<b>42,394</b>	<b>264,310</b>	<b>266,314</b>
<b>TOTAL REVENUE REQUIREMENT</b>	<b>510,228</b>	<b>890,086</b>	<b>813,651</b>
Less: Revenue from Other Sources			
Grants and Subsidies	109,296	18,000	18,000
Non Electricity - Customer Payments	10,502	79,093	79,093
Other Income	9,146	7,397	7,397
<b>SUB-TOTAL</b>	<b>128,944</b>	<b>104,490</b>	<b>104,490</b>
<b>REVENUE REQUIREMENT</b>	<b>381,284</b>	<b>785,596</b>	<b>709,161</b>
Penalty (2% system losses)			17,403
<b>REQUIRED REVENUE REQUIREMENT</b>	<b>381,284</b>	<b>785,596</b>	<b>691,758</b>
<b>PROJECTED kWh</b>	<b>3393</b>	<b>4,913</b>	<b>4,913</b>
<b>AVERAGE TARIFF YIELD (TZS/kWh)</b>	<b>112</b>	<b>160</b>	<b>141</b>

Note: The current tariff yield is TZS 118.9/kWh instead of TZS 112/kWh approved in 2007.

The difference between the requested and approved costs are as provided hereunder:

- (i) Own Generation and Purchased Energy Costs were adjusted by recalculating the same based on short term generation plan and latest invoices billed to TANESCO, and by correcting a conceptual error of assigning a capacity charge on SPPs.
- (ii) Staff Costs were adjusted by replacing projected figures with the actual costs for the same year.
- (iii) Other Expenses were adjusted based on trend analysis and escalated by inflation.
- (iv) Provision for Doubtful Debts was recalculated based on 85% credit sales and only 2% thereof was allowed for recovery into tariffs.
- (v) Depreciation was allowed despite TANESCO's request to defer it until 2012 in order to conform to regulatory best practices.
- (vi) Financing charges were approved as requested to meet lenders' covenant for Debt Service Coverage Ratio of

1.15. and

(vii) The Capital Investment Programme will be funded using TZS 106.6 billion which is a sum of the allowed TZS 39.8 billion for CIP and TZS 66.7 billion allocated as depreciation charges. The disallowed amount of TZS 19 billion comprises of TZS 11 billion requested for service line cost for customers within 30 metres; TZS 66 million contributions for partnership with Uganda National Water and Sewerage Cooperation and Others amounting to TZS 7.93 billion were disallowed for failing prudence test.

- (d) That a special rate for TANESCO staff is abolished and in lieu thereof the tariff for T1 customers shall apply to TANESCO staff.
- (e) That electricity tariffs as summarized in Table 2 is approved:

**Table 2: Summary of Approved Tariffs**

Customer Category		Component	Current Tariff	Requested Tariff	Approved
D1	Domestic Low Usage	Basic Charge	-	-	
		Energy Charge (0-50 kWh)	49	60	60
		Energy Charge (above 50 kWh)	156	226	195
T1	General Use	Basic Charge/Month	2,303	3,109	2,738
		Energy Charge	129	174	157
T2	Low Voltage Supply	Basic Charge/Month	8,534	11,521	10,146
		Energy Charge	85	112	94
		Demand (kVA)	9,347	13,715	12,078
T3	High Voltage Supply	Basic Charge/Month	8,534	11,521	10,146
		Energy Charge	79	100	84
		Demand (kVA)	8,669	11,753	10,350
T5	ZECO	Basic Charge/Month	8,534	11,521	10,146
		Energy Charge	75	98	83
		Demand (kVA)	4,755	9,777	8,610

- (i) The approved ZECO tariff is in line with the Power Purchase Agreement with TANESCO and the same is not subsidising D1 customers.
- (ii) Since T1 is predominantly composed of domestic customers, D1 and T1 customers are, for the purpose of this determination, regarded as belonging to the D1 customer category.
- (f) That a rebalancing of tariffs by class as part of the 2011 adjustment be deferred until when actual costs imposed by each customer category are established.

- (g) That a provisional Fuel Adjustment Charge be approved but deferred the implementation of inflation Adjustment Charge until a reliable base tariff is established. The fuel adjustment charge shall be determined in accordance with the following formula:

$$FAC_{t-1} = (\sum_i (P_{it-1} \times Q_{it-1})) / AS_{t-1} - BFC_{t-1}$$

Where:

“ $FAC_{t-1}$ ” means the Fuel Adjustment Charge in month t-1 established by subtracting the forecast base fuel cost from the actual fuel cost.

“ $P_{it-1}$ ” means the actual price of fuel and associated operating costs (VOM) for each fuel resource (i) such as diesel, HFO, natural gas and IPP/SPP energy resources in month t-1

“ $Q_{it-1}$ ” means the actual quantity of resource i consumed in month t-1

“ $AS_{t-1}$ ” means the Actual end use energy sold in month t-1

“ $BFC_{t-1}$ ” means the Base Fuel Cost per unit of energy forecast to be sold provided in the TANESCO financial forecast as approved by EWURA

- (i) TANESCO shall monitor monthly changes in the fuel costs but effect the changes thereof quarterly only when the accumulated adjustment represents over three percent (3%) of the TANESCO’s revenue requirement as approved by the Authority for 2011.
- (ii) Fuel adjustments shall be submitted to the Authority for approval and shall apply to all customers’ tariffs at an equal rate. The fuel adjustment shall be shown conspicuously in each customer bill.
- (h) That a pilot program of Time of Use (TOU) tariffs to largest customers be established. and
- (i) That two percent of the system losses equivalent to TZS 17.3 billion from being financed by rate payers in this tariff adjustment in order to induce efficiency is disallowed.

Conditions

9. Without prejudice to the provisions of foregoing paragraphs, the approved tariffs shall be subject to the following conditions:

- (a) TANESCO shall maintain an appropriation account for

approved revenue requirement of the following cost items:

- (i) Repair and Maintenance Programme;
- (ii) Depreciation charges;
- (iii) Capital Investment Programme; and
- (iv) Purchased Electricity costs.

TANESCO shall deposit in the account one twelfth of the total amount of the approved cost items (i) to (iv) above at the end of each month. The appropriation accounts shall be subjected to quarterly regulatory audit.

- (b) Within 30 days after firming up debt financing arrangement, TANESCO shall submit a copy of each loan facility letter to EWURA.
- (c) With effect from 1<sup>st</sup> January, 2011, TANESCO shall submit to EWURA quarterly reports detailing the implementation of a Repair and Maintenance Programme and a Capital Investment Programme, customer connections, a system losses reduction status report, electricity purchased costs, own generation costs, units sold, number of metered customers, and total revenue.
- (d) Within one year after coming into effect of this Order, TANESCO shall submit to EWURA for review, a detailed report of technical and non technical losses.
- (e) Within 30 days from the date of signing by Controller and Auditor General, TANESCO shall submit to EWURA the Audited Financial Statements and Management Letter.
- (f) Fifteen days prior to effecting quarterly tariff change resulting from fuel costs changes, TANESCO shall submit to the Authority the proposed fuel costs changes and the basis of its determination for approval.
- (g) TANESCO shall, in 2011 meet the following Key Performance Indicators as contained in Table 3:

**Table 3: Key Performance Indicators**

Objective	KPI	2011
Increase access to electricity	New customer connections	100,000
Increase reliability - SAIFI(220/132/66kV)	Trips/Feeder/Month	<2
Increase reliability - SAIFI(33/11kV)	Trips/Feeder/Month	<2
Increase reliability - SAIDI(33/11kV)	Minutes/Feeder/Month	<2
Increase reliability - CAIDI in Dar es Salaam, Arusha, Kilimanjaro & Mwanza (220/132/66kV)	Minutes	<1
Increase reliability - Voltage Variation (220/132/66kV)	%	±10%
Increase reliability - Voltage Variation in Dar es Salaam, Arusha, Kilimanjaro & Mwanza (33/11kV)	%	±5%
Decrease Transmission Losses	% of energy sent out lost	5.2%
Decrease Distribution Losses	% of energy sent into MV grid lost	18.5%
Optimal Collections Rate	% of billed	96%
Increase Staff Productivity	Customer per employee	172
Improve Financial Performance	Minimum DSCR	1.15

(h) TANESCO shall submit to the Authority the Time of Use (TOU) implementation plan and a schedule of tariffs to be used during peak and off-peak hours for approval.

**10.** Revoked the Electricity (Tanzania Electric Supply Ltd Company Tariff Adjustment) Order No. 07-012 of 2007 save for the connection charges.

Commencement

**11.** The Electricity (Tanzania Electric Supply Company Limited Tariff Adjustment), Order shall take effect from 1<sup>st</sup> January, 2011.



Haruna Masebu  
Director General  
EWURA

*Dar es Salaam, 18<sup>th</sup> December 2010*