

## Top Sheet – Request for Regulatory Action

Legal name of the regulated entity	Tanzania Electric Supply Company Limited (TANESCO)
Full address of regulated entity	Umeme Park, Morogoro Rd., Ubungo, P.O. Box 9024, Dar es Salaam.
Authorized officer	Eng. William G. Mhando Managing Director +255 222 451159
Company Business	To generate, transmit, distribute and supply electricity in Tanzania Mainland and sell bulk supply to Zanzibar and neighbouring countries.
Date of Incorporation	The Company was incorporated in November, 1931 with an incorporation number 255 and later on issued with a license in February 1957 for 55 years.
Purpose of application	Tanzania Electric Supply Company Ltd. (TANESCO) respectfully requests that EWURA approve an emergency tariff adjustment effective from 1 <sup>st</sup> January, 2012. The proposed average adjustment is 155%.
Key arguments supporting proposed regulatory action	The principal motivation for this emergency tariff application is for TANESCO to cover increased costs of operation resulting from introduction of emergency power plants to address acute power shortage in the country. Without such a tariff increase, TANESCO will not be able to meet power demand.
Signature of the authorized officer	

**Tanzania Electric Supply Company Ltd**



**AN APPLICATION FOR EMERGENCY TARIFF  
BY TANESCO**

**9<sup>th</sup> NOVEMBER 2011**

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## Summary of the Application

Tanzania Electric Supply Company Limited (TANESCO) is a Tanzanian parastatal organisation established in 1964. It is wholly owned by the government of Tanzania. Its business includes the generation, transmission, distribution and supply of electricity in Tanzania mainland as well as bulk power to Zanzibar.

This emergency tariff application follows the requirements set forth in EWURA's *Tariff Application Guidelines of 2009*, including the specific request that the application be as succinct as possible.

### Requested Regulatory Action

With this emergency tariff application, TANESCO respectfully requests that EWURA approves the following regulatory action:

**Effect a tariff adjustment from 1<sup>st</sup> January 2012. The proposed average adjustment is 155%. This adjustment will enable TANESCO to meet additional high operational costs from emergency rentals and owned thermal power plants as well as to demonstrate and maintain its bankability to financiers and Development Partners offering financing and concessionary loans in order to meet power demand.**

The current tariff regime yields average revenue of 141 TSh/kWh, yet the revenue requirement target for TANESCO in year 2012 is 359 TSh /kWh causing a shortfall of 218 TSh/kWh (155%). The principal motivation for this emergency tariff application is for TANESCO to cover increased costs of operation resulting from introduction of emergency power plants to address acute power shortage in the country. Without such a tariff increase, TANESCO will not be able to meet power demand.

# 1 Introduction

## 1.1 Background

During 2010 and 2011, the country experienced poor hydrology in the catchment areas for major reservoirs of hydro-power generation and inadequate supply of natural gas thus resulting into acute power shortages. The Government knowing the impact of load shedding to the economy (economic loss is about 1.1 USD/kWh), deliberated and approved the procurement of rental power plants on fast track basis towards bridging the power supply gap to the grid system.

Following the approval and in consultation with PPRA, TANESCO undertook the following measures:

- Entered into an Interim Power Purchase Agreement with IPTL to supply 100MW using HFO
- Entered into a Power Purchase Agreement with Symbion LLC to generate 112MW (75MW being generated using natural gas).
- Entered into Power Purchase Agreement with Aggreko International to supply 100MW using gas oil [Tegeta (50MW) and Ubungo (50MW)].

In addition, TANESCO made efforts to procure following own power plants:

- A dual fuel fired plant of 150MW in Dar es Salaam using (Jet A1 & natural gas) at the cost of USD 165 million. Financing arrangements is ongoing. The plant is expected to be commissioned in August 2012.
- A Heavy Fuel Oil (HFO) fired plant of 70MW at Majani Mapana, Tanga using HFO at a cost of Euro 83 million. Financing arrangements is ongoing. The plant is expected to be commissioned in September 2012.

Besides, during the National Assembly's budget session in August 2011 the Government committed to add 300MW to the national grid to address the ongoing load shedding. Thereafter TANESCO was directed to procure the additional 300MW. In implementing the same, TANESCO undertook the following:

- Negotiated and initialled a Power Purchase Agreement with Symbion LLC to generate 205MW using Jet A-1 fuel
- Fast-tracked implementation of 100MW Ubungo Gas Plant to be commissioned in December, 2011 instead of June, 2012.

Implementation of 60MW HFO based plant at Mwanza is under construction and expected to be commissioned in August 2012.

Nevertheless, Mtera reservoir level has been dropping drastically and as of 8<sup>th</sup> November, 2011 the water level was 689.42 m.a.s.l. which is 0.58 metres below minimum operating level.

## **1.2 Analysis**

### **1.2.1 Generation plan:**

A generation plan was prepared using the above mentioned generation resources to meet a peak demand of 937MW and 1031MW in 2011 and 2012 respectively with energy forecast of 5,753GWh and 6,270GWh respectively. The generation plan (as per Annex 1) shows that by using the above generation resources the load shedding problem will end by the end of December 2011.

### **1.2.2 Project Financing:**

Financial analysis carried out by TANESCO indicates that there is a need to source a commercial loan of up to TSh 408 billion to meet the various costs for the rental services and energy charges. Annex 2 show provisional Income Statement for year 2012.

## 2 Tariff Application

TANESCO has taken initiatives to alleviate the load shedding by procuring emergency power plants that will be running on fossil fuels. Since the costs of running these power plants is high, TANESCO now wishes to apply for an emergency tariff adjustment for the period from 1<sup>st</sup> January, 2012 in order to prudently meet costs of running emergency power plants.

With this emergency tariff application, TANESCO respectfully requests that EWURA approves the following regulatory action:

**Effect a tariff adjustment from 1<sup>st</sup> January 2012. The proposed average adjustment is 155%. This adjustment will enable TANESCO to meet additional high operational costs from emergency rentals and owned thermal power plants as well as to demonstrate and maintain its bankability to financiers and Development Partners offering financing and concessionary loans in order to meet power demand.**

The current tariff regime yields average revenue of 141 TSh/kWh, yet the revenue requirement target for TANESCO in year 2012 is 359 TSh /kWh causing a shortfall of 218 TSh/kWh (155%). The principal motivation for this emergency tariff application is for TANESCO to cover increased costs of operation resulting from introduction of emergency power plants to address acute power shortage in the country. Without such a tariff increase, TANESCO will not be able to meet power demand.

### 3 Current and Proposed Customer Bills

Average rate increases by class as of 1<sup>st</sup> January, 2012 under the proposed tariff structure will be:

- (i) D1 – Domestic: First 50 kWh/month 155%, consumption above 50 kWh/month: 155%
- (ii) T1 – General Use: 155%
- (iii) T2 – Low Voltage: 155%
- (iv) T3 -- Medium Voltage: 155%
- (v) T5 – High Voltage (Zanzibar bulk tariff): 155%

The bill impact will be identical for each class.

**TABLE 1: CURRENT AND PROPOSED TARIFF STRUCTURE**

CUSTOMER CATEGORY		COMPONENT	CURRENT <i>from</i> <b>1-Jan-11</b> <i>(TSh)</i>	PROPOSED <i>from</i> <b>1-Jan-12</b> <i>(TSh)</i>
<b>D1</b>	Domestic Low Usage	Basic charge	0	0
		Energy charge 0 – 50 kWh/mo	60	153
	High Cost Units Penalty - High Usage:	Energy charge Above 50 kWh	195	497
<b>T1</b>	General Use	Basic charge/mo	2,738	3,106
		Energy charge	157	400
<b>T2</b>	Low Voltage Supply	Basic charge/mo	10,146	25,875
		Energy charge	94	240
		Demand (kVA)	12,078	30,802
<b>T3/T3a</b>	High Voltage Supply	Basic charge/mo	10,146	25,875
		Energy charge	84	212
		Demand (kVA)	10,350	26,395
<b>T5/T3b</b>	Zanzibar Supply	Basic charge/mo	10,146	25,875
		Energy charge	83	212
		Demand (kVA)	8,610	21,957

#### **4 Financial Implications if the increment is Not Approved**

If the Tariff Application is not approved, the company would be projected to incur a financial loss of TSh 1,089 billion in 2012.

Under this scenario, TANESCO's Debt Service Coverage Ratio (DSCR) would drop to -753%. It is highly unlikely that the Development Partners for the proposed projects such as the 400kV backbone transmission line, as well as those for other planned development projects, will lend funds if TANESCO's DSCR is below 1.15.

TANESCO will not be able to operate rentals, own thermal plants and most likely revert to load shedding.

Furthermore, it will have an effect on implementation of R&M and CIP. Reduction on R&M expenditure will lead to increased losses and poor quality of power supplied.

On the other hand, failure to achieve CIP expenditure will negatively impact implementation of various other projects including connection of new customers, voltage improvement, revenue protection and in turn result into fall in Tanzania's access to electricity below the current 17.7%.

## **5 Customer Benefits**

In return for the emergency tariff increase, TANESCO commits to provide her customers with the following benefits:

- Alleviation of power rationing by increasing generation to meet the demand.
- Retain the ability to improve system reliability and quality of supply by reducing outages through upgrading and rehabilitation of the transmission and distribution lines.
- Reduction in losses.
- Improved political, economical and social services which are vulnerable to load shedding such as banditry, factories workers laid off, hospital and schools closed and reduction of tax collection.

TANESCO will continue to strategically interact with key stakeholders in the identification and implementation of Power Systems improvement programs, in order to meet customer expectations.

### ANNEX 1: GRID PRODUCTION PLAN (JANUAR 2012 – DECEMBER 2012)

Month	FORECAST										PRODUCTION, GWh										TOTAL THERMAL	BIOMAS	SYMBIONX Part(20)-DOD-JETA	Aggreko DSM GO	UB-150 (DF)-JETA	Symbion (112+150Part 20)-DSM-JET A	SEMCO HFO	Mwanza HFO	IPTL HFO	UB-100 Gas	Symbion (112)-DSM-Gas	TGP Gas	UGP Gas	SONGAS Gas	TOTAL HYDRO	NPF	HALE	NYM	Kihansi	Kidatu	Mtera
	Energy Demand (GWh)	Mtera	Kidatu	Kihansi	NYM	HALE	NPF	TOTAL HYDRO	SONGAS Gas	UGP Gas	TGP Gas	Symbion (112)-DSM-Gas	UB-100 Gas	IPTL HFO	Mwanza HFO	SEMCO HFO	Symbion (112+150Part 20)-DSM-JET A	UB-150 (DF)-JETA	Aggreko DSM GO	SYMBIONX Part(20)-DOD-JETA																					
Jan-12	509.3	4	22	48	2	0	9	85	113	61	28	0	55	49	-	-	52	37	29	-	-	424	0.0																		
Feb	481.8	1	21	59	2	0	7	90	102	55	27	0	52	46	-	-	49	35	27	-	-	392	0.0																		
Mar	521.5	1	22	77	3	0	10	112	113	61	28	0	55	51	-	-	35	37	29	-	-	409	0.0																		
Apr	502.6	1	22	98	2	0	13	136	109	59	28	0	53	27	-	-	27	36	28	-	-	366	0.0																		
May	519.3	1	22	91	2	0	16	132	110	61	28	0	55	39	-	-	28	37	29	-	-	387	0.0																		
Jun	501.3	1	22	69	2	0	12	106	109	59	28	0	53	48	-	-	35	36	28	-	-	395	0.0																		
Jul	523.0	6	22	51	2	0	10	92	113	61	28	0	55	51	-	-	58	37	29	-	-	431	0.0																		
Aug	526.8	6	22	45	2	0	7	83	113	61	28	0	55	51	34	-	36	37	29	-	-	444	0.0																		
Sep	520.4	6	22	41	2	0	6	76	109	59	28	0	53	50	34	21	27	36	28	-	-	444	0.0																		
Oct	557.9	6	22	37	2	0	10	78	113	61	28	0	55	52	37	49	56	0	29	-	-	480	0.0																		
Nov	546.7	6	22	38	2	0	11	79	109	59	28	0	53	50	36	48	57	0	28	-	-	468	0.0																		
Dec	559.7	6	22	41	2	0	7	79	113	61	28	0	55	52	37	49	53	0	29	-	-	480	0.0																		
<b>TOTAL</b>	<b>6270</b>	<b>46</b>	<b>264</b>	<b>695</b>	<b>28</b>	<b>0</b>	<b>118</b>	<b>1149</b>	<b>1323</b>	<b>718</b>	<b>336</b>	<b>0</b>	<b>647</b>	<b>567</b>	<b>179</b>	<b>167</b>	<b>513</b>	<b>329</b>	<b>338</b>	<b>4</b>	<b>4</b>	<b>5121</b>	<b>0</b>																		

## ANNEX 2: PROVISIONAL INCOME STATEMENT FROM FOR YEAR 2012

<b>INCOME</b>	
ELECTRICITY REVENUE	1,782,049,320,573
OTHER NON OPERATING INCOME	2,390,683,455
CREDIT FOR USAGE OF GAS INFRASTRUCTURE	10,000,000,000
CONSUMER CONTRIBUTIONS	29,597,587,039
LPP COLLECTIONS	17,138,604,719
GOT SUPPORT FOR IPTL CAPACITY	18,000,000,000
GOT SUPPORT FOR IPTL FUEL	0
OPTICAL FIBRE COLLECTION	6,000,000,000
<b>TOTAL REVENUE</b>	<b>1,865,176,195,786</b>
<b>EXPENDITURE</b>	
<b>COST OF PRODUCTION</b>	<b>1,405,735,353,540</b>
<b>OWN - FUEL</b>	199,275,746,663
<b>PLANT MAINTENANCE</b>	21,676,370,402
<b>IPPs</b>	498,212,481,861
<b>IMPORTED</b>	20,894,058,675
<b>SYMBION/AGGREKO - GAS/GO Energy</b>	526,333,332,715
<b>SYMBION/AGGREKO- GAS/GO Rental-Capacity</b>	116,759,499,711
<b>PLANT O&amp;M CONTRACTS</b>	17,604,194,192
<b>OIL AND LUBRICANTS</b>	4,979,669,320
<b>REPAIR AND MAINTENANCE</b>	<b>51,973,232,112</b>
GRID MAINTENANCE	15,097,243,119
DISTRIBUTION SITE MAINTENANCE (R&M)	24,625,548,993
OTHER OPERATING R&M	12,250,440,000
SALARIES & OTHER STAFF BENEFITS	154,893,166,837
STAFF COST	16,300,765,554
STAFF TRAINING COST	1,989,822,670
MEDICAL EXPENSES	4,380,249,176
TRANSPORT EXPENSES	11,700,027,436
SAFARI EXPENSES	6,585,878,750
CONSULTANCY FEES	3,213,057,131
LEGAL FEES	6,099,325,789
PRINTING & STATIONERY	3,142,124,057
SECURITY GUARDS EXPENSES	2,790,906,531
POSTAGE & TELEPHONE CHARGES	1,051,497,502
ADVERTISEMENT EXPENSES:	913,511,000
INSURANCE	1,800,888,303
RENT, WATER & OTHER UTILITIES	720,120,000
BANK CHARGES & COMMISSION	1,486,123,382
CASH COLLECTION CHARGES	5,417,883,034
OTHER OPERATING EXPENSES	19,296,629,897
<b>EXPENSES SUB - TOTAL BEFORE BELOW ITEMS:</b>	<b>1,699,586,112,699</b>
<b>EARNING BEFORE INTEREST, TAX, DEPRECIATION AND AMORTIZATION, (EBITDA)</b>	<b>165,590,083,087</b>
DEPRECIATION	79,382,921,898
PROVISION FOR BAD DEBTS AND WRITE OFF	13,371,125,831
PROVISION FOR STOCK LOSSES AND WRITE OFFS	0
PROVISION FOR UNCOLLECTABLE DEBTS (ZANZIBAR)	6,425,214,753
<b>OPERATING SURPLUS/(DEFICIT) AFTER THE ABOVE ITEMS</b>	<b>66,410,820,605</b>
<b>INTEREST</b>	
<b>OVERDRAFT</b>	0
<b>LOANS</b>	73,435,350,737
<b>OPERATING SURPLUS/(DEFICIT)</b>	<b>-7,024,530,132</b>