ENERGY REGULATION BOARD

CALL FOR COMMENTS

ERB PUBLIC CONSULTATION PAPER ON ZESCO'S APPLICATION TO REVISE ELECTRICITY TARIFFS FOR THE FINANCIAL YEAR 2010/2011

1. Introduction and Background

ZESCO Ltd applied for a tariff adjustment to the Energy Regulation Board (ERB) on 20th April 2010 for an average tariff increase of 36% across all customer categories excluding mining and exports based on the Multi Year Tariff Framework (MYTF) of the price control period 2008/9 to 2010/11. ZESCO has applied for a tariff variation effective 1st July 2010.

Although in principle, the ERB adopted the MYTF in December 2007 for the years 2008/9 to 2010/11, the new tariff setting approach cannot be fully implemented because the current legal framework has not yet been amended to make it possible. Therefore, ZESCO will continue to apply for a tariff increase each year in the migration path to cost reflective tariffs until the Electricity Act has been amended.

In this tariff application, ZESCO seeks a variation of tariffs for the financial year 2010/11 through to 2014/15. ZESCO is applying for an average tariff adjustment of 36% in the year 2010 with forecast adjustments of 21%, 14%, 8% and 9% in the following years.

Among other reasons, ZESCO argues that changes in the economic environment are the major driving force behind this particular application. It has also stated that since the last tariff application in 2009, there have been significant changes in both the local and global economic environment that have impacted on the company's operations. In addition, ZESCO has observed that the year 2009 was characterised by various changes in the operations of financial institutions in all the major economies of the world that have also contributed to necessitating the application.

ZESCO notes however, that in spite of the global financial crisis and the resultant economic recession, the domestic economy has enjoyed sustainable economic growth over the last five years.

Furthermore, ZESCO cites increased investments in some sectors of the economy, for example the US$120 million Lafarge cement plant and the US$100 million Universal Mining Steel Plant which have been commissioned as well as infrastructure developments in the tourism sector. ZESCO points out that such investments have increased demand for electricity. It also states that general domestic demand has continued to grow with over 3,000 customers being connected to the grid every month. Consequently, the growth in demand has made it necessary for ZESCO to propose various generation and transmission projects in order to ensure that electricity does not become a binding constraint to the economic gains recorded to date. However, ZESCO argues that the implementation of proposed generation projects continue to be delayed on account of lower tariffs and the current world economic recession.

ZESCO submits that it has taken an opportunity to utilise the MYTF implemented by the ERB to apply for tariff adjustment for the year 2010/11 that will take into account the impact of the previous adjustments and any changes in the variables that affect the cost of producing electricity.

This paper highlights key issues in ZESCO's application that the public are expected to comment upon as part of the consultation process.

2. Legal Basis for Tariff Review

Section 8(2) of the Electricity Act, Chapter 433 of the Laws of Zambia, provides that where an operator considers it expedient to vary or alter charges in respect of any supply of electricity, the operator shall give notice to the consumers of the proposal to vary or alter those charges, as the case may be. It is further provided in Section 8 (3) that if consumers do not make any submission within thirty days of the notice, the variation or alteration, as the case may be, can come into effect. However, in accordance with Section 8(4), where a consumer makes a submission, the Board is required to review the proposal by the operator taking into account the submission by the consumer.

Section 8(4A) further provides that the ERB, on its own motion, if it considers it appropriate, may review the application by the operator. The Electricity Act further provides in section 8(7) that after considering the submission by any consumer and objection thereto, the Board may confirm the proposed variation, or order that the proposed variation shall not be made or order the operator of the undertaking to make such other variation as the Board considers fit.

3. ZESCO's Proposed Tariff Path

In its tariff application, ZESCO proposes a tariff migration path that runs from 2010/11 to 2014/15. Below is a detailed breakdown of the proposed absolute tariff increases per kWh and percentage increases per customer category.

Table 1: ZESCO's Proposed Tariff Path for 2010 – 2015.

Average Price ZMK/kWh	**Current 2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
Residential % Change	262.77	445.02 69%	646.8 45%	775.77 20%	825.22 6%	909.42 10%
Large power % Change	286.18	304.01 6%	323.38 6%	337.9 4%	362.57 7%	386.88 7%
Small power % Change	243.78	278.06 14%	315.7 14%	351.08 11%	391.25 11%	423.87 8%
Commercial % Change	266.54	376.38 41%	449.84 20%	526.18 17%	563.05 7%	614.09 9%
Services % Change	191.12	284.1 49%	346.71 22%	412.1 19%	455.29 10%	495.4 9%
Total Average ***% Change***	***250.08***	***337.51*** ***36%***	***416.49*** ***21%***	***480.61*** ***14%***	***519.48*** ***8%***	***565.93*** ***9%***

4. Basis of the Tariff Application

ZESCO, in its application, states that in seeking a tariff adjustment on account of the following factors:

1. Changed economic conditions in the last two years;
2. Changes in the cost of generating, transmitting, distributing and supplying of electricity;
3. System and customer base expansion;
4. Rising cost of electricity imports; and
5. Cost reduction and revenue enhancement measures.

These factors are outlined here-under.

4.1 Economic Growth

Despite the global economic recession, the Zambian economy enjoyed strong growth with increased investment in the mining, manufacturing and tourism sectors. General domestic electricity demand has grown with 3,000 new connections every month. These developments have made it necessary for ZESCO to increase investment in generation, transmission and distribution infrastructure.

4.2 Inflationary Pressures

ZESCO states that although the inflation rate fluctuated between 9.9% in December 2009 and 9.6 % in January 2010. At the end of its financial year ending March 31st 2010, inflation closed at a higher figure of 10.2%, which ZESCO asserts directly affects its operations as follows:

i) That the company sources a substantial amount of goods and services from the local market whose costs have been steadily rising; and
ii) That the costs such as operations and maintenance, administration, transportation, travel and accommodations have been directly affected by inflation.

4.3 Exchange Rate Pressures

ZESCO states that most of the financial year 2009/10 was characterised by the appreciation of the Zambian Kwacha, the exchange rate steadily reduced from K5,660/US$ in April 2009 to K4, 514/US$ in January 2010. The utility contends however, that during the last two months of the year the Kwacha depreciated, ending the year at over K4,700/US$.

ZESCO states that it relies heavily on imported machinery, spares and equipment for its operations whilst 50% of its revenues are kwacha denominated and any depreciation of the kwacha pushes up these costs. It is further stated that the prices of raw materials such as steel, copper, aluminium, oil are on the rebound and moving toward pre- financial crisis levels. This is expected to cause a further rise in the prices of equipment and materials that ZESCO has to purchase for its operations.

ZESCO also asserts that it is further exposed to the depreciating Kwacha in that it has a lot of foreign currency denominated loans. These become more costly to service whenever the Kwacha depreciates.

4.4 Interest Rates

ZESCO states that domestic lending and deposit interest rates continued their upward trends during the year ended March 2010 and remained steady at 29.2% in the first quarter of 2010. ZESCO submits that the current drive to develop new generating and transmission projects has made the company borrow US$428 million while a further US$1,118 million is yet to be secured. It further states that it is imperative that the tariffs should be high enough to sustain the financing of its present and future investments. The utility states that a timely tariff adjustment will enable ZESCO to take advantage of the reduced interest rates on the international market. ZESCO also states that the company competes for financing with other utilities which have higher tariff levels to support their loan repayments.

4.5 Rising Cost of Generating, Transmitting and Supplying Electricity

The last five years have seen a dramatic rise in prices of commodities such as copper, steel, cobalt and oil which form major inputs in the manufacture of electrical equipment used by ZESCO. This has translated in increased operating cost of providing power. The brief drop in prices of these commodities in 2008 did not match the reduction in prices for equipment, spares and machinery used by ZESCO, some of which have long lead times and were ordered at the peak of the commodity prices.

4.6 Key Performance Indicators

ZESCO states that the Key Performance Indicators (KPIs) agreed with the ERB have increased the necessity for the company to raise more resources to undertake capital investment projects as well as re-invest in and/or refurbish its infrastructure.

ZESCO states that this tariff adjustment is expected to generate revenue of up to K2,840 billion, against an operating expenditure of K1,723 billion and resulting in an operating profit of K1,117 billion[1] for the period 2010/11. The Utility states that it will then be able to make progress towards the fulfillment of its Key Performance Indicators (KPIs) and the implementation of its capital investment programme.

ZESCO states that it has a huge capital expenditure budget aimed at improving performance in transmission, distribution, supply, metering and on fuel and maintenance with regards to the KPIs agreed with the ERB as follows:

Table 2 : Projected Expenditure on the Attainment of the KPIs

[1] Operating profit before Administration expenses and taxes

KPI		ZMK' Million
Quality of service	Generation Capital Expenditure	826,908
Quality of service, System losses	Transmission Capital Expenditure	1,172,336
Quality of service, System losses	Distribution Capital Expenditure	182,456
Quality of service, Cash management	Supply Capital Expenditure	51,634
Metering, Quality of service	Projected expenditure on Metering	487,327
Quality of service	Projected expenditure on Fuel and Maintenance	237,646
Total		**K2,958,307**

5.7 System and Customer Base Expansion

ZESCO states that it plans on increasing electrification in rural areas in conjunction with the Rural Electrification Authority (REA) and connection of areas supplied by diesel generators to the national grid. It argues that the completion of these electrification plans will assist the country in achieving the Vision 2030 for energy that entails increasing the national electricity access to 66 percent by 2030.

ZESCO also states that it has a capital budget for system reinforcement and expansion projects for the period 2009 to 2013 amounting to US$350.80 million. Out of this US$337.18 million is expected to be financed from internal resources. The rest are World Bank (IDA) projects.

5.8 Rising Costs of Electricity Imports

ZESCO argues that the rising cost of imported electricity to meet rising local demand has necessitated the need for the tariff increase to mitigate the local power deficit. In that regard, ZESCO states that the cost of power imports has risen from an average of US 4 cents per kWh in 2006/7 to about US 5 cents per kWh in 2009/10.

5. Current Utility Performance

ZESCO contends that despite not having been granted the tariff adjustments in full that it had applied for in 2008/9 and 2009/10, the utility has made some progress in the achievement of commitments made through prudent use of available resources. ZESCO highlighted the following factors that affected its performance:

- General operating costs besides electricity imports and insurance costs were expected to reduce by 10%;
- Increase in depreciation cost was as a result of the addition of new assets to the fixed asset register;
- Increase in the cost of external services due to the general rise in the cost of the services ZESCO procures on an annual basis, with the largest increases recorded for legal services, insurance premium, hardware and software maintenance, trade commissions and regulatory fees;
- A reduction in finance charges due to reduced expenditure on penalties for late payment;
- A rise in Kariba complex costs necessitated by an increase in the water charges paid to the Zambezi River Authority;

- A 58% increase in the cost of maintenance of buildings due to the introduction of pole levy by some municipalities and increase in expenditure on rates on ZESCO property;

- A rise in auxiliary and primary plant maintenance costs;

- Training costs necessitated by the need to enhance skills of members of staff; and

- The increase in the cost of pensions and gratuity in the year ended March 2009 as a result of the cost of restructuring following the implementation of the job evaluation exercise. Consequently, remuneration of staff rose by 10% and 12% for non represented and represented staff respectively.

6. ZESCO's Proposed Performance Improvements and Commitments

ZESCO states that it plans to embark on the following revenue enhancement measures:

- An annual increase of 5% on maintenance costs over and above inflation for three years to further improve the quality of supply and thus enhance revenues;

- The reduction of non-technical and technical distribution losses by 2.25% per annum until the optimum level of 14% is attained through distribution system rehabilitation and reinforcement and customer data base clean ups; and

- The metering of all un-metered customers using either credit or prepaid meters. ZESCO states that the utility met and exceeded the target of metering at least 8,000 customers per quarter during 2009 and made significant progress on reducing the backlog of un-metered customers.

ZESCO states that there will be a 30MW increase in installed capacity at Kariba North Bank Power station due to the completion of the ongoing Power Rehabilitation Project (PRP) works by December 2010.

ZESCO has committed to undertake the following other activities:

- Invest a total sum of K2, 843,562 million on capital projects;

- Establish three customer service centers and pay points every year from 2010 at a cost of K1 billion per annum;

- Increase sensitization of the public on need to efficiently use electricity;

- Replace old distribution networks in the former mine townships;

- Invest in automatic meter reading technology for Maximum Demand tariff customers at a cost of K7 billion by 2011;

- Increased collection of up to 100% on retail customers; and

- Debt swap with GRZ for the remaining September 2003 debt swap amount of K209 billion in favour of ZESCO against the tax obligations with the Zambia Revenue Authority.

In view of the above, ZESCO states that in order to ease the burden of the increase in costs of electricity on consumers, it undertakes to continue to reduce operational costs in non-key areas of the business.

7. Capital Project Financing

ZESCO states that the company expects to spend over K3 trillion on operations and capital projects in the budget year 2010/11. Of this amount 50% will be financed from own resources whilst the remaining 50% will be sourced in the form of loans and capital contributions.

The utility has also stated that it plans to issue a bond of about K150 billion (US$33 million) on the stock market. The company expects to connect about 30,000 new customers from which a total K45 billion will be raised in capital contributions.

Table 3: Budgeted Capital Expenditure for 2010/11

Project Name	Total K'm
Generation Projects	1,462,630
Transmission Projects	679,649
Distribution Projects	579,192
Supply Projects	12,195
Information Technology (IT) Projects	45,230
Civil Projects	27,784
Other Projects	36,882
TOTAL	**2,843,562**

8. Working Capital Management

In its tariff application ZESCO argues that the company plans to ensure a strong working capital position by intensifying collections, completing the PRP, improving service delivery and investing more in IT and in its vehicle fleet.

The over K200 billion debt swap with the Government will help improve its working capital. Trade receivables are expected to reduce by the same amount. ZESCO states that the bigger portion of the creditors' amount is expected to be settled during the year to ensure that the company's image is improved. This includes the settlement of all the pension arrears to ex- ZESCO employees.

9. Challenges

ZESCO lists the following as major challenges it would likely face in 2010/11:

- Tariff adjustments resistance from both retail and bulk customers;
- Delays in completion of PRP due to post rehabilitation challenges at Kariba North Bank and Victoria Falls power stations;
- Obtaining finances/loans to undertake planned projects;
- Rising costs of transformers, cables and poles; and
- After-effect of the impact of the global financial crisis.

10. Key Strategies

ZESCO states that in order to address the above challenges, its strategy will focus on the following:

I. Undertake major generation projects in order to increase market share in both local and export markets;

II. Carry out normal and periodic technical overhauls of generation and transmission infrastructure to reduce non-technical distribution losses to 15% by 2011;

III. Target collections at 100% of current billing and reduce debtor days to 60 days by March 2011;

IV. Accelerate cost reduction measures – limit overtime to 10% of of basic pay from current 13%, award a maximum 5% salary increment across all employee categories, limit average bonus to 25% of basic pay for management staff and 100% basic pay for represented staff;

V. Implement policy of incorporating maintenance related labour costs into operations and maintenance expenditure;

VI. Recruit only replacement staff;

VII. Outsource some functions;

VIII. Rapidly increase access to electricity by 7% new connections annually; and

IX. Maintain value of revenues in real terms through tariff adjustments and achieve an average tariff of at-least 4.8 US cents by March 2011.

11. Regulatory Guidelines for the Tariff Review

In considering the application for tariff adjustment, the ERB will conduct a detailed and analytical review of the application and the utility's performance. The ERB is guided, among other things by the following regulatory principles:

- ✓ Recovery of prudently incurred costs by the utility;
- ✓ Used and useful utility assets;
- ✓ Financial sustainability of the utility;
- ✓ The urgency of migrating to cost reflective tariffs;
- ✓ Delivery of quality service; and
- ✓ Social considerations for the indigent customers.

In addition, the ERB will take into account the public submissions on the application before arriving at a just and reasonable decision.

12. Guidelines for Stakeholder inputs or Comments on proposed Tariff Adjustment

The public is hereby invited to comment on the proposed tariff adjustments by making written submissions to ERB.

The comments may include detailed workings of the perceived impact of proposed adjustment on consumers, and may be with reference to the issues outlined in this summary. Comments may also be with reference to the detailed tariff application available at the ERB offices or website or with reference to the issues mentioned below:

1. ZESCO's application to revise tariffs is intended to, among other things, undertake capital projects to increase generation capacity to meet rising electricity demand;

2. The average 36% increase required by ZESCO will result in a K1,117,192 million operating profit;

3. ZESCO states that it will undertake to expand its customer base by accelerating new connections;

4. The need for ZESCO to achieve cost reflective tariffs;

5. In view of the investment projects ZESCO intends to undertake, what forms of assistance should the Government provide or consider providing to accelerate project implementation?;

6. ZESCO has stated that there have been significant increases in the prices of equipment and fuel on the international market, what measures can ZESCO take to mitigate the impact of these increases on operating costs?;

7. ZESCO states that approving the tariff applied for will lead to improved provision of reliable service to its customers through investments in power projects and improvement in service delivery.

8. What other commitments/public accountability should be demanded of ZESCO during the consideration of the application and after the conclusion of the application;

9. In addition to the agreed Key Performance Indicators (KPIs), how else should the ERB hold ZESCO publicly accountable for the failure to meet its commitments in view of the tariff review?; and

10. Any other comments that the public may have.

All written submissions/comments on the ZESCO application should be sent to **The Executive Director** on the following addresses so as to be received before 24th May 2010. Those interested in the executive summary of the application can download it from www.erb.org.zm or collect hard copies from the ERB office in Lusaka and Kitwe. For those that are not in these towns, they may contact the ERB to arrange for copies.

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