



LESOTHO ELECTRICITY COMPANY

Tariff application to the Lesotho Electricity Authority Board

Financial Year 2012-2013

January 2012

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1.0 Background

Lesotho Electricity Company (LEC) is a Government owned company registered in terms of the Companies Act of 1967. It was established in terms of the LEC (Pty) Ltd Establishing and Vesting Act 2006 wherein the assets, liabilities, rights and obligations of the former Lesotho Electricity Corporation were vested in the company. It was subsequently issued a Composite License in terms of Section 50 of the Lesotho Electricity Authority Act, (hereinafter referred to as LEA Act) as amended, to transmit, distribute and supply electricity. It has, in terms of the license, an obligation to supply power to all customers who are within its service territory. It is, however, authorized to supply electricity throughout the country. It is also responsible for economic procurement of power for its customers.

- Licence obligations re. Unbundled accounts. etc.
- This is a rushed exercise and should not be considered as definitive basis for future cost allocation in future submissions.

1.1 Introduction

One of the license conditions prescribes that LEC must submit an application to the regulator when it needs to increase tariffs. This is in anticipation that LEC should be self sufficient and be able to cover its costs, including return on capital invested, through charges to the customers. The quality of service provided also influence the level of costs and therefore the investment and financing requirements. Another aspect of the tariff review lies in relation to consumption patterns. The required capacity and consequent investment is determined by the peaks in daily consumption patterns.

1.2 Objective

In determining the tariff to be applied, not only the cost of services is to be considered as it is imperative to adopt a commercial approach in the making. That is to say the charges must be responsive to market conditions and therefore factors in addition to costs are critical. The main objective of the proposed tariff increase is to strive for commercial sustainability of the company and ensure reliability of supply. However other issues to be taken into consideration are as follows;

- Tariff levels and structures must be equitable and easy to administrate
- Tariff should be adopted for upliftment of social and economic structures of the country.
- Tariffs should be made flexible enough to enable new needs and entrants to be accommodated as services develop.

2.0 Justification for tariff review

2.1 Drivers of tariff increase

More about the ESKOM tariff increase

An adjustment of 11percent is proposed to be applied on salaries and wages in the next financial year. This figure is inclusive of all allowances, provident fund and medical aid. Amongst other things, this move is meant to compensate for inflation and retain staff. Hiring the right expertise for the company has of late been a challenge, but how to retain them is even harder. This situation has been a concern of the management. Besides many other factors like training and development as well as improving the work environment, LEC is willing to adjust salaries for staff members thereby stay competitive in the labor market.

Having realized the increased number of electrocutions in the line of duty, the company has introduced a compulsory medical aid to its staff members. It has been realized that most of the staff exposed to electrocutions are not affiliated to medical aid. As a result LEC becomes responsible for all medical expenses or sometimes has to top up in case medical aid cannot cover all costs. This move is primarily triggered by soaring expenditure on medical expenses on the victims. In the current financial year, the company has already expended M 1,069,818.61 on one staff member who was earlier this financial year electrocuted. This is also reflected by high insurance premiums which have been experienced by the company in the recent years.

In August 2004, a compulsory and contributory provident fund scheme was for the first time introduced as an alternative separation benefit for LEC employees. In terms of the applicable rules, only employees who are on the permanent establishment of LEC qualify for membership of the fund. The fund is still in operation to date. In its quest to further boost staff wellness even after retirement, LEC has increased its contribution towards provident fund from 5 to 9 percent. Six years down the line, it was proposed after a study by Symetrix Company (an affiliate to old mutual

insurance company) revealed that 75 percent of LEC staff member will not be able to retire comfortably due to the fact that their provident fund is relatively young as compared to the average number of years of members.

The right of an employee to claim severance pay is regulated by section 79 of the Code as amended. Section 79 (1) of the Code provides that any employee- whose employment is governed by the Code- who has completed more than one (1) year of continuous service with the same employer shall be entitled to claim severance pay upon termination of his or her services, which shall be an amount equivalent to two (2) weeks' wages for each completed year of continuous service. In terms of section 8 of the Amendment Act, an employer that operates some other separation benefit scheme (e.g. provident or pension fund or gratuity scheme) that provides more advantageous benefits to the employee than severance pay, may submit an application to the Labour Commissioner for exemption from payment of severance pay. If upon consideration of the said application, the Labour Commissioner is satisfied that the application has merit, the employer shall be exempted from severance pay. The legal effect thereof is that an employee to which such an exemption applies shall not be entitled to receive severance pay upon termination of employment. By virtue of such amendment to the law, LEC after introducing provident in 2004, perceived the latter to be more lucrative hence opted to introducing it upon retirement. But latter developments in the courts of law induced some retirees to challenge for legality of receiving both and won. It is upon this background that LEC decided to formally budget for compensation for everyone who retired after 2004 with both benefits hence increase in budget for wages and salaries.

The above mentioned benefits attract fringe benefit tax. These are employee benefits in kind which are provided to employees in addition to their normal wages or salaries. In Lesotho, this kind of employee benefits is taxable to at least some degree. That is why the fringe benefit tax sub component of the employee remuneration is envisaged to increase by 138 percent.

3.0 Basis of calculations

Cost allocation matrix was developed in the initial phase of the tariff calculation. The purpose of the matrix was to assist LEC in making tariff submission that is based on different business units within the company hence show cost allocate to each one of them. The matrix assisted in checking, if necessary adjusting, the basis used for allocating costs to the business units. Further to that, it made it facilitated entering the submission data into the regulatory models. The structure of the matrix is in such a manner that cost categories and drivers for allocating costs are entered into the regulatory accounts. The cost drivers are then used in the spread sheet calculations to allocate the chart of accounts costs to different business units. Cost data for the financial year 2011/12 was largely used to populate the matrix and forecast 2012/13. However, there are some exceptions like in the case of net fixed assets where full asset register is available up to 31 March 2011. The basis for allocating costs was suggested in the cost allocation manual (CAM) and main cost drivers were attributable costs and assets.

3.1 Business units

- Four business units: Generation, transmission, distribution, supply and procurement (S&P)
- S&P assumed to buy electricity (bulk) and transmission and distribution services and sell to customers
- S&P includes commercial services but meters themselves are included with distribution

3.2 Cost allocation

- Mention the Cost Allocation Manual.

The methodology for cost allocation within and between regulated businesses was based on cost allocation manual. This manual was designed to be utilized by LEC in order to allocate shared or common costs among regulatory business units in a view of allocating costs in a consistent and transparent manner. It enables allowed revenues to be calculated for each business unit.

The manual is consistent with the primary and secondary legislation, where additional rules may be issued from time to time and if necessary, the manual will be amended for consistency with new rules or regulations. The primary electricity legislation affecting regulatory

accounting is contained in the LEA act 2002, article 24, as amended by the LEWA act 2011. LEC's license requires LEC to provide regulatory accounts for each separate business as if those are companies. LEA has issued one regulation governing tariffs namely LEA (Electricity Price Review and Structure) Regulation 2009. This regulation describes how LEA will use the information provided in the regulatory accounts to review and approve tariffs. The Regulatory Accounting Guidelines (RAGS) on the other hand, are intended to guide the licensee in the preparation and submission of regulatory accounts to LEA. They are used to supplement accounting guidelines that are used in Lesotho for the purpose of submitting the statutory accounts and provide specific guidance on additional information or alternative arrangement of information that is required specifically by the regulator.

3.2.1 Assets

Cost Allocation Driver	Total Assets	Ring-fenced business units			
		Generation	Transmission	Distribution	S&P
Assets	1,048,019,854.98	24,655,804.29	468,388,782.92	553,998,083.73	977,184.05

- Full asset register available to 31 March 2011.
- Relatively small increase to 31 March 2012 and therefore used assets as of 31 March 2011. Only small impact on required revenues and cost allocation.
- Transmission power lines are combined with distribution in detailed asset register. Therefore distribution assets were split pro-rata with aggregate transmission/distribution split from the trial balance.
- Transmission assets pre-2006 must be excluded from the Regulatory Asset Base (RAB). But these are not separately identified in the asset register. We therefore used the figures for transmission from the exercise conducted last year (M 60 million plus some additions).
- Distribution assets reduced by estimated customer contributions adjusted for depreciation of assets financed by customers.

3.2.2 Depreciation

- Depreciation for generation, distribution and S&P taken from the 2012-13 Budget.
- Depreciation for transmission adjusted downwards pro-rata with assets to remove depreciation on pre-2006 assets

3.2.3 Capex

- Half of Capex in 2012-13 is allowed in the RAB.
- Capex extracted from the 2012-13 Budget.

3.2.4 Opex

- Opex extracted from the 2012-13 Budget.
- Allocated to the business units based on CAM.

3.2.5 WACC

- WACC calculated using WACC model.
- Single WACC calculated for all businesses. Strictly speaking there should be a different WACC for the different businesses but this can be refined.

For regulated business, allowed revenues are calculated to include a rate of return on net fixed assets. In the financial year under review, the rate of return was calculated using the weighted Average Cost of Capital (WACC). The return on long term government bond was used as a proxy for the cost of debt whereas cost of equity was only based on industrial norm.

4.0 Distribution

4.1 Outturn in 2010/11

In 2010/11 there was no separation of financial information into the separate business units and therefore no information is available for 2010/11. The outturn for 2010/11 is therefore discussed at an aggregate level in the Procurement and Supply (P&S) section.

4.2 Preliminary outturn in 2011/12

In 2011/12 there was no separation of financial information into the separate business units and therefore no information is available for 2011/12. The outturn for 2011/12 is therefore discussed at an aggregate level in the Procurement and Supply (P&S) section.

4.3 Forecasts for 2012/13

Cost items to be allocated	Distribution
Corporate functions	9,313,739.82
Corporate services	23,214,701.54
Finance	11,687,168.67
Engineering	6,748,372.42
Insurance	1,850,149.39
Salary and wages	65,814,490.98
Cost of working capital	245,788.84
Statutory audit report	132,153.53
Depreciation	54,897,999.18
Return on capital	75,214,199.20
Total	249,118,763.57

4.4 Special expenditures

Describe here any special, major expenditures that could not reasonably have been foreseen when setting the multi-year tariff framework.

LEC has deployed physical security personnel in the substations in order to address a number of threats, including unauthorized access to substation facilities, theft of material, and vandalism. Recently, sub stations and other business strategic locations have experienced a number of attacks. Furthermore, people force their way into the sub stations, ignoring warning signs hence exposing themselves to life threatening situations. More often than not these unfortunate deeds are carried out in a view of stealing metals such as copper. It is worth mentioning that substations are linked to the national grid and any resultant failure to deliver compromises national production let alone a fortune it costs every time a substation is vandalized. In a quest to arrest such a behavior, the company has significantly increased a budget for security in the financial year under review.

4.5 Required revenue

Revenue requirement	Distribution
Grand total of costs to be recovered	249,118,763.58

Taking account of forecasts and special expenditures, the allowed revenue for the distribution business unit (M 249, 118, 763.58) represents total revenue to be collected from distribution use of system.

4.6 Distribution tariffs for 2012/13

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	Allocated Maloti mn.	Cost of losses Maloti mn.	Net costs Maloti mn.	Sales MWh	Tariff M/kWh excl. levies
Distribution	249.12	23.59	272.71	672,405.28	0.41

Distribution tariff for financial year under scrutiny is calculated by dividing revenue requirements (M 249, 118, 763.58) by distributed electricity (672,405, 000.28 kWh).

5.0 Transmission

5.1 Outturn in 2010/11

In 2010/11 there was no separation of financial information into the separate business units and therefore no information is available for 2010/11. The outturn for 2010/11 is therefore discussed at an aggregate level in the Procurement and Supply (P&S) section.

5.2 Preliminary outturn in 2011/12

In 2011/12 there was no separation of financial information into the separate business units and therefore no information is available for 2011/12. The outturn for 2011/12 is therefore discussed at an aggregate level in the Procurement and Supply (P&S) section.

5.3 Forecasts for 2012/13

Cost items to be allocated	Transmission
Corporate functions	2,237,930.42
Corporate services	5,578,090.83
Finance	2,923,140.53
Engineering	8,546,731.11
Insurance	1,564,245.88
Salary and wages	15,814,082.64
Cost of working capital	97,033.34
Statutory audit report	111,731.85
Depreciation	15,707,672.81
Return on capital	10,191,969.41
Total	62,772,628.82

5.4 Special expenditures

Describe here any special, major expenditures that could not reasonably have been foreseen when setting the multi-year tariff framework.

5.5 Required revenue

Taking account of forecasts, special expenditures and outturn adjustments (if any).

Revenue requirement	Transmission
Grand total of costs to be recovered	62,772,628.82

5.6 Transmission tariffs for 2012/13

	Allocated Maloti mn.	Cost of losses Maloti mn.	Net costs Maloti mn.	Sales MWh	Tariff M/kWh excl. levies
Transmission	62,772,628.82	4.72	67.49	735,838.94	0.09

Transmission tariff for financial year under scrutiny is calculated by dividing revenue requirements (M 62,772,628.82) by distributed electricity (735, 838.94 MWh).

6.0 Procurement and supply

6.1 Outturn in 2010/11

Here we need a high level comparison of the outturn in 2010/11 against the revenue approved by LEA and a reconciliation of the differences. This can be extracted from the provisional draft audited accounts.

- Revenue
- Bulk supply costs
- Generation, fuel, etc
- Repair & maintenance
- Staff remuneration
- Operating expenses
- Depreciation
- LEA licence fee

We also need to show what the allowed revenue would have been if we had had full information on kWh sales, inflation, etc.

6.2 Preliminary outturn in 2011/12

Here we need a high level comparison of the outturn in 2010/11 against the revenue approved by LEA and a reconciliation of the differences. This can be extracted from the LEC Budget Proposal.

Same breakdown as above. Next year (2013/14) the breakdown should be:

- Bulk purchase costs
- P&S own costs

- Transmission
- Distribution

We also need to show what the allowed revenue would have been if we had had full information on kWh sales, inflation, etc.

6.3 Forecast bulk supply costs for 2012/13

Summary:	Maloti	Units - kWh
132kV Eskom	67,740,761.90	85,880,012.00
132kV LHDA	61,299,662.10	500,728,839.15
132kV EDM	41,143,166.59	73,184,000.00
88kV Eskom	45,585,159.22	83,203,322.80
22kV Eskom	5,946,615.47	7,611,743.81
Totals	221,715,365.29	750,607,917.76

6.3.1 Costs of imported power

In 2010/11 financial year, National Energy Regulator (NERSA) granted a Multi Year Price Determination (MYPD) that covers the Eskom financial period from 2010/11 to 2012/13. The next financial year (2012/13) is the last year (MYPD3) of the said price determination. Standard average prices and percentage increases were as follows;

Standard average prices and percentage increases	2010/11	2011/12	2012/13
Standard average prices	41.57 c/kWh	52.30 c/kWh	65.85c/kWh
percentage increases	24.8 %	25.8 %	25.9 %

Source: MYPD

However, in its meeting held on the 9th March 2012, NERSA approved an average price increase of 16.0% on Eskom's tariff review for the period 01 April 2012 to 31 March 2013. The reduction was

based on the fact that Eskom reviewed down 25.9% approved average price increase by 9.9%. Therefore the Eskom bulk purchase is calculated based on 16% increase instead of 25.9% that was anticipated.

Over the years, bulk imports have assisted LEC in balancing the electricity supply in the country. This is expected to continue until such time that the country has secured enough power to meet its demand. The total bulk purchase is expected to increase in the next financial year by 10 percent. Even though minimal in terms of capacity, the largest percentage growth of 31 percent is expected from Qacha's Nek. This is due to the current negotiations with Eskom which are meant to increase Qacha's Nek's capacity from 2 to 3MW. Butha Buthe intake point is also expected to grow by 26 percent as a result of growth in Mokhotlong town and Lets'eng diamond mine expansion program. The bulk power costs from EDM, Mozambique, have increased by 25%. Though payable in Rand, EDM tariff is denominated in US dollars and as a result there will be foreign exchange losses emanating from the fact that Rand is currently weaker than US dollar. However, foreign exchange losses are treated as part of the bulk supply costs hence a pass through effect to the customer.

The current power shortage is envisaged to be arrested by current developments of introducing different technologies like wind power generation and pump storage into the network. Wind energy anticipated to be harvested in the country is expected to diversify the energy mix and provide a cleaner country energy profile. But then the challenge would be to incorporate such technology into the already ailing network and affordability of wind bulk tariff.

6.3.2 Costs of power purchased from 'Muela

LEC has not budgeted for an increase in the unit cost of power purchased from 'Muela. However, LHWP has planned to shut down its operations for a period of two months, (October and November 2012) to allow for inspections, maintenance and repair of defects in the power plant. Initially the shutdown was expected in the current financial year. It is therefore imperative for LEC to put in place security contingencies in order to ensure uninterrupted supply of electricity during that time. It is therefore implied that the capacity that was supposed to be purchased from 'Muela, which is estimated just over 69Gwh which will in the months of October and November be purchased from Eskom and EDM. As a result of a difference in tariffs between two suppliers, LEC

will incur more costs to ensure uninterrupted power supply. This amount is already factored in the 2012/13 financial year revenue requirement.

6.3.3 Forecast of P&S own operating costs for 2012/13

Cost items to be allocated	Procurement and Supply
Corporate functions	4,442,950.09
Corporate services	11,074,150.91
Finance	2,325,488.22
Engineering	1,269.94
Commercial	6,652,235.00
Insurance	3,263.43
Salary and wages	31,395,605.24
Statutory audit report	233.10
Depreciation	15,188.19
Return on capital	120,082.87
Total (Excl. Bulk)	56,030,467.00

6.4 Forecast full-year revenue requirements for 2012/13

Revenue requirement	Procurement and supply
Grand total of costs to be recovered	56,030,467.00

Taking account of forecasts and special expenditures, the allowed revenue for the procurement and supply business unit is M 56, 030, 467.00. Procurement and supply tariff is the overall revenue requirement which is collected from end users by the supply business. The revenue required by the supply business is actually the sum of the revenues required by the LEC generation, transmission, distribution and supply businesses since the business pays these other businesses for the services they provide.

6.5 Forecast revenue requirements for 10 months from 1 June 2012

Revenue requirements allowing for the delay in implementing the tariff increase.

6.6 Special expenditures

Describe here any special, major expenditures that could not reasonably have been foreseen when setting the multi-year tariff framework.

It is highly mandatory that the company's Information Technology (IT) capability enables the company to offer high quality services to its customers and achieve its strategic objectives. This can only be achieved when IT initiatives are driven by and aimed at achieving defined strategic objectives of the company. With LEC regulated since 2006 the information it owns has never been so critical for its success than now. Availability, accuracy and timeliness of such information are the number one factors that can cause LEC to fail or succeed to achieve its objectives and meet its regulatory requirements. These therefore calls for a change in the way the Information Technology assets are acquired, managed and operated and hence a need for a strategic framework/program that will ensure that IT investments are made to address business needs.

6.7 Proposed tariff levels

The proposed tariff review on both energy and maximum demand are set out in the tables below.

Table 1: Energy Charge

Customer Category	Tariff	Customer levy	Electricity Levy	Proposed Tariff including Levies	Current Tariff	Proposed Percentage increase per category (Incl Levies)	Proposed Tariff excluding Levies	Current Tariff excluding Levies	Proposed Percentage increase per category (Excl levies)
Industrial HV	Two Part								
Industrial LV	Two Part								
Commercial HV	Two Part								
Commercial LV	Two Part								
General Purpose	One Part								
Domestic	One Part								

Lighting	One Part								
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Table 2 Maximum Demand

Customer Category	Current MD	Proposed MD	Proposed Percentage increase
Industrial HV			
Industrial LV			
Commercial HV			
Commercial LV			

7.0 Recommendation

LEC management recommends that LEA board approves the following tariff levels to be implemented in the financial year 2012/13 to recover the above stated revenue requirement

Table 1: Energy Charge

Customer Category	Tariff	Customer levy	Electricity Levy	Current Tariff	Current Tariff excluding Levies	Proposed Tariff excluding Levies	Proposed Tariff including Levies	Proposed Percentage increase per category (Incl Levies)	Proposed Percentage increase per category (Excl levies)
Industrial HV	Two Part								
Industrial LV	Two Part								
Commercial HV	Two Part								
Commercial LV	Two Part								
General Purpose	One Part								
Domestic	One Part								
Lighting	One Part								

Table 2

Maximum Demand

Customer Category	Current MD	Proposed MD	Proposed percentage increase
Industrial HV			
Industrial LV			
Commercial HV			
Commercial LV			