

THE UNIVERSITY OF NAIROBI

INSTITUTE OF DIPLOMACY & INTERNATIONAL STUDIES

THE ROLE OF THE WORLD BANK IN POWER SECTOR REFORMS IN KENYA

Research paper submitted in partial satisfaction of the
requirements of the degree Master of Arts in Diplomacy and
International Studies

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February 2005

DECLARATION

This dissertation is my original work and has not been presented for a degree to any university.

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DEDICATION

To my biological children Adhiambo and Kirimi. To all my other children – Wanja, Mwendwa, Mbega, Maere, Dion, Kendi, Mutuma, Njuguini, Kathambi, Mwenda and Nadia.

For their unconditional love, the joy that they bring to my life and the lessons that I continue to learn from them. To them I say: learning is forever.

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ABBREVIATIONS

ADB	African Development Bank
AFB	Agence francaise de Developpment
CDC	Commonwealth Development Corporation
CIDA	Canadian International Development Authority
EAP&L	East African Power & Lighting Company
EIB	European Investment Bank
ERB	Electricity Regulatory Board
EU	European Union
GDP	Gross Domestic Product
GoK	Government of Kenya
GWh	Giga Watt hours
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
IMF	International Monetary Fund
IPP	Independent Power Producer
JICA	Japanese Bank for International Development
KenGen	Kenya Electricity Generating Company Limited
KfW	Kreditsatalt fur Weidraufbau (of Germany)
KShs	Kenya Shillings
kWh	Kilowatt hours
KPC	Kenya Power Company
KPLC	Kenya Power & Lighting Company Limited
KRA	Kenya Revenue Authority
KVDA	Kerio Valley Development Authority
LCPDP	Least Cost Power Development Plan
LRMC	Long Run Marginal Costs
MoE	Ministry of Energy
MW	Megawatt
PFP	Policy Framework Paper
PPA	Power Purchase Agreement
PRSP	Poverty Reduction Strategy Paper
REF	Rural Electrification Fund
SAP	Structural Adjustment Programme
TANESCO	Tanganyika Electricity Supply Co. Ltd.
TARDA	Tana and Athi Rivers Development Authority
TRDC	Tana River Development Company

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ABSTRACT

This research paper explores the role of the World Bank in Kenya's power sector reforms. Because of the bank's and Kenya's relationship with other aid donors, those donors' relations with Kenya generally, and the power sector specifically, are also examined.

Power sector reforms cannot be reviewed in isolation from Kenya's macro-economic reforms, and the International Monetary Fund (IMF), in particular, has also influenced power sector reforms. Macro-economic reform is therefore one of the sub-themes of this study and in this regard, relations with other donors in the context of power sector reforms are also studied.

As Kenya's donor relationships are operationalised in the study, a number of issues are highlighted including aid dependency; management issues; institutional, legal and policy framework shortcomings. Poor dialogue between the World Bank, other donors and the government of Kenya is also analysed.

Inextricably, the paper explores the long history of Kenya's power sector and how it evolved into a complex network of various entities. It further explains why it was found necessary to reform and streamline this complex network with a view to making it more economically viable and sustainable. The role of the World Bank in these reforms is the basis of this paper.

Chapter One

INTRODUCTION

1.1 Background

Serious reforms of Kenya's power sector, which have been driven by the government and its development partners, particularly the World Bank, commenced in 1997. The reforms have been aimed at increasing the sector's economic efficiency, creating arm's length commercial type relationships between the sector entities; and establishing a legal and regulatory framework to enhance efficient use of resources dedicated to the supply of electricity to the economy. They were also aimed at encouraging private investment to the industry, and enabling the industry to raise capital from new sources.

Subsequently, a new regulatory and management framework began to unbundle the sector following the enactment of the Electric Power Act, 1997. This was especially so in regard to the hitherto overlapping financial functions amongst the major sector players, which previously gave rise to disputes on issues of asset ownership, responsibility for debt servicing and development of new generating facilities on a timely basis. Further, the framework created a mechanism for private sector participation in the electricity generation business, and also established the Electricity Regulatory Board (ERB).

1.2 Statement of the research problem

Only 15 percent of Kenya's population has access to electricity, making electricity supply growth a socio-economic development priority. In the rural areas, the reach is as low as four percent (MoE , 2004). At the same time, electric power development is capital intensive and in developing countries, it is difficult to mobilise the funds necessary to implement even a single power generation plant entirely from local resources. For instance, the economic cost of putting up one megawatt of power in Kenya is estimated at KShs216,840,000 (hydro), KShs166,920,000 (geothermal), and KShs70,200,000 (thermal), (Njenga, 2003). The percentage of local and foreign financing for companies operating in the power sector in Kenya are shown in Annex 1.

Poor countries therefore usually depend heavily on external financiers to implement power sector projects. Kenya's power sector also raises funds locally through tariffs for development, operations and maintenance of the power system. The power transmission and distribution company, the Kenya Power & Lighting Company (KPLC), notes that the proposed power system expansion for projects commencing after 2003/04 requires capital investment of approximately US\$104 million for transmission projects (approximately KShs8.3 billion at an exchange rate of KShs80 to the US dollar), and approximately US\$221 million (KShs17 billion) for

generation over the five year period up to 2007/2008, (KPLC, 2004). Out of this, KPLC is expected to meet 30 percent of the capital cost of transmission and generation projects from internal funds; and source the balance of the funding externally.

The government-owned Kenya Electricity Generating Company (Kengen), which generates power from all publicly financed facilities, and KPLC, enjoy financial support from the multilateral and bilateral development agencies on the guarantee of the Kenya Government. They also self-finance their capital budget from their retained earnings, as well as receiving funding from the government in form of equity and grants. On the other hand, independent power producers (IPPs) in the country finance their capital budget from equity investments, loans from international capital markets and self-finance from their retained earnings, (Njenga, 2003).

The main financier of Kenya's public power sector is the World Bank. The bank's involvement in the sector represents a continuing and evolving partnership with the Government that dates from the early 1970s when its board approved two loans for development of hydropower facilities on the Tana River. Since then, the bank's support to the sector has undergone changes from the initial focus on financing construction and equipment, to supporting institutional development, and to emphasis, which started in the early 1990s, on

sector reforms, (World Bank, 2004: 5). Controversies involving World Bank and other donor conditionalities have remained a major obstacle in the development of Kenya's power sector. This issue forms an important part of this study.

Because of its heavy dependence on foreign funding to meet such costs, therefore, meeting aid conditionalities which donors impose on the country generally, and the power sector specifically, is closely linked to the sector's development. The importance of World Bank and other donor support for the sector is so crucial that meeting the conditionalities they set has resulted in the implementation of various projects in the sector; while failure to do so has at times led to project delays and other negative implications not only for the sector, but for the entire economy.

1.3 Objectives of the Study

The main objectives of this study are to review Kenya's power sector and critically examine how the World Bank has influenced reforms within it. In this context the study aims to:

- a) Establish the nature of GoK/World Bank/power sector relations.
- b) Establish how the World Bank has influenced reforms in the power sector.

1.4 Justification of the Study

This study can be justified on both policy and academic grounds. The policy justification derives from the fact that GoK/World Bank relations affect Kenya's power sector reforms. At the same time, there is immense pressure on the government to evolve policies that ensure adequate and cost-effective electricity that is efficiently distributed.

Academically, the paper will contribute to the existing literature on GoK/donor relations generally, and on the World Bank/Kenya power sector relations specifically. There has been limited academic study and analysis of GoK/World Bank/power sector reforms. This study therefore attempts to help fill this knowledge gap and to add to available knowledge in this academic field.

1.5 Methodology

The qualitative research method was applied comprising interviews and research of existing documents and texts. The study relies both on primary and secondary sources of data¹. However, many of the research studies/papers previously carried out and which are used in this research are quantitative (e.g. the power plans, the annual reports, development plans and power sector studies).

¹ The World Bank official website: <http://www.worldbank.org/>, and official IMF website: <http://www.imf.org/> contain a large database of secondary information.

The primary sources comprise mainly interviews with power sector professionals, analysts and officials. A variety of techniques were used including interviews and review of existing research papers, publications and books on the research subject. Interviewees were selected according to their experience and the kind of professional input they could make to the study. Such professionals included legal experts, planners, economists and engineers.

There is a wide body of empirical secondary information available from both the World Bank and International Monetary Fund (IMF) in both soft and hard copy formats. These were extensively used for analytical purposes. Similarly, the power sector entities have numerous empirical studies, records and archives that were freely available for this study. These were used extensively. Also researched were academic books, analysis and studies relevant to the subject of research.

1.6 Hypotheses

This study presupposes the following:

- 1) That the World Bank has greatly influenced the scope and nature reforms in Kenya's power sector.
- 2) That World Bank conditionalities have been a catalyst for power sector reforms.
- 3) That Kenya's power sector is heavily dependent on donor aid.

Chapter Two

LITERATURE REVIEW

2.1 Overview

The energy sector plays a critical role in the development of an economy, making adequate and reliable supplies of power and energy indispensable for socio-economic growth. For a developing nation like Kenya, the electricity (or power) sub-sector of the energy sector² is of critical importance as industrial development relies on an efficient infrastructure, a key component of which is electricity.

The Kenya government recognises that realisation of overall national development objectives is only feasible if quality energy services are available to the economy in a sustainable, cost effective and affordable manner, (MoE, 2004). In the National Energy Policy, the government's national development objectives are listed as: accelerated economic growth and raising productivity of all sectors; equitable distribution of national income, alleviation of poverty through provision of basic needs; enhanced agricultural production, industrialisation, accelerated employment creation and improved rural-urban balance. (MoE, 2004).

² For ease of reference, in this paper, the electricity sub-sector of the energy sector is referred to as the electricity or power sector.

2.2 Electricity and GDP

Moreover, electricity generation and consumption significantly affect Gross National Product (GNP), (Cicchetti and Sepetys, 1995: 3). The opposite is also a fact with regard to electricity sales and Gross Domestic Product (GDP); particularly because trends in GDP are the primary determinants of electricity sales. This relationship of sales to GDP is due to the use of electricity as a productive input by virtually all commercial, agricultural and industrial establishments in the modern economy of a country. For instance, KPLC estimates that a decline in GDP growth from an annual average of 3.3 percent between 1994 and 1998 to an annual average of 0.7 percent between 1999 and 2000 resulted in an annual opportunity loss of sales of KShs843 million in annual revenue at 2003 prices, as shown in Annexes 2 and 3.

2.3 Social dimensions of power supply

Historically, at their initial stages of development, power sectors have tended to be owned, controlled and mostly run by the state in almost all countries. Kenya's energy sector mirrors others elsewhere, whereby energy sectors, due to their perceived economic importance, are owned and controlled by governments, particularly in developing countries. In such instances, the power sector is publicly owned, viewed as a public service, and often dominated by a central planning philosophy and loans from international financing organisations such

as the World Bank, help to meet some of the key investment requirements, (Newbery, 1995: 2).

Most power utilities benefiting from World Bank loans as per its 'social obligation' public utilities paradigm of the 1970s and 1980s are identified as state-owned enterprises, (World Bank, 1996). In Sub-Saharan Africa, most power projects completed by 1993 were designed under this paradigm, which emphasised soft loans to the sector and access of cheap electricity to the poor. At the time, the bank sought to:

1. Provide power service on the basis of least-cost development programmes.
2. Strengthen the sector's institutions and improve their efficiency.
3. Increase local resource mobilisation and catalyse cofinancing.
4. Improve access to electricity by disadvantaged groups, (World Bank, 1996: 10).

However, from late 1980s, the bank started revising its energy financing strategy, placing more emphasis on management of energy demand and provision of technical assistance. This was premised on the view that the bank's key objectives for supporting power sectors, especially with respect to financial and environmental sustainability, were not being met. There were also widespread concerns over energy conservation in the face of the growing energy crisis of the 1970s.

2.4 World Bank policy change

The changing nature of World Bank lending priorities is portrayed by the manner in which the focal points for its activities have evolved over the past four decades. In the 1960s, bank activities included promoting food security. In the 1970s, priorities included addressing the energy crisis by encouraging new supplies and conservation, while in the 1980s, it was tackling the debt crisis and promoting open trade policies. In the 1990s, the bank started to focus more on poverty reduction and social development, such as through support to health and education projects, while the power sector would be funded through commercial loans.

With regard to power sector financing, therefore, by 1993 the World Bank had decided to discontinue disbursing soft loans to it. Instead, the bank began to stress the desirability of operating the sector on a commercial basis, the importance of energy conservation, and the requisites of environmental sustainability. The new policy, no longer emphasising access to basic electricity by the poor, was a notable shift.

As a result of this policy shift, electricity has led the growth of private activity in energy. Almost every country in the world is undertaking or at least contemplating to undertake electric power sector liberalisation. Even in developing countries, the availability of long-term foreign capital and opening of infrastructure sectors to private

investment has led to an increase in private infrastructure activity. Subsequently, more than 600 private electricity projects, representing investment of US\$160 billion, reached financial closure in 70 developing economies in 1990-1999, with projects involving generation assets capturing four-fifths of the investment, (Uzagyurrem, 2000: 2). In Kenya, of the five generation projects implemented between 1997 and 2004, only two were undertaken by the public sector and funded through concessional loans. The others were funded from commercial loans borrowed from the private sector.

The World Bank's policy change can be attributed to its changed primary motivations for providing aid, which included cementing commercial and financial relations with the aid recipients, opening markets and ensuring opportunities for investors, contractors and suppliers from the aid giving countries, (O'Brien and Ryan, 2001: 474). In this respect, the issue of foreign aid distribution and its motivation has long been debated among political scientists and economists. Political scientists argue that bilateral aid transactions are invariably motivated by political or diplomatic factors, while economists have tended to focus more on the impact of foreign aid on the recipient's economy, (Boschini and Olofsgard, 2001; Brown, 1995; O'Brien & Ryan, 2000; Teh-chang, 2000; Kiringai, 2001; Dougherty & Pfaltzgraff, 1996).

With the policy shift, the bank's guiding principles for financial support now were mainly economic reasons with some political overtones. Aid recipients were expected to show a commitment to implementation of the following: transparent regulation; commercialisation and corporatisation; imports of services; economic and democratic reform and increased private investment. In 1994, the bank restated the direction it hoped developing countries would take in development of infrastructure, including power supply.

“Sector policies that take advantage of opportunities for competition in generation of power can improve efficiency and lower costs.” (The World Bank, 1994: 116).

The bank further captured the essence of lending to the power sector that followed the paradigm shift in its lending policy to the power sector thus:

“Donors can play a role beyond financing investments in infrastructure by assisting countries to strengthen their institutional capacity for undertaking sustainable reform and sectoral development.” (The World Bank, 1994: 21).

In 2000, the Bank reiterated its strong contention that private sector participation was one of the best ways to finance investment and increase efficiency:

“With the right incentives and regulations, the private sector and other non-state institutions can deliver services that satisfy the socio-economic objective of public goods and more efficiently than the state,” (The World Bank, 2000: 145).

2.5 The Bretton Woods Institutions

The International Monetary Fund (IMF) and the World Bank are collectively referred to as the Bretton Woods institutions and from a wider context, the role of the two in power sector development can be analysed through their mandates, which are outlined in their articles of agreement.

2.5.1 The mandate of the IMF is:

- a) To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.
- b) To facilitate the expansion and balanced growth of international trade, and to contribute to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.
- c) To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
- d) To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.

- e) To give confidence to members by making the general resources of the fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.
- f) In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balances of payments of members.

2.5.2 The mandate of the World Bank is:

- a) To assist in the reconstruction and development of territories of members by facilitating the investment of capital for productive purposes, including the restoration of economies destroyed or disrupted by war, the reconversion of productive facilities to peacetime needs and the encouragement of the development of productive facilities and resources in less developed countries.
- b) To promote private foreign investment by means of guarantees or participations in loans and other investments made by private investors; and when private capital is not available on reasonable terms, to supplement private investment by providing, on suitable conditions, finance for

productive purposes out of its own capital, funds raised by it and its other resources.

- c) To promote the long-range balanced growth of international trade and the maintenance of equilibrium in balances of payments by encouraging international investment for the development of the productive resources of members, thereby assisting in raising productivity, the standard of living and conditions of labour in their territories.
- d) To arrange the loans made or guaranteed by it in relation to international loans through other channels so that the more useful and urgent projects, large and small alike, will be dealt with first.
- e) To conduct its operations with due regard to the effect of international investment on business conditions in the territories of members and, in the immediate postwar years, to assist in bringing about a smooth transition from a wartime to a peacetime economy.

The World Bank consists of five separate legal entities: (i) the International Bank for Reconstruction and Development (IBRD), which makes loans directly to member states or to other borrowers with member state guarantees; (ii) the International Finance Corporation (IFC), which provides both debt and equity financing to

private sector ventures in developing countries; (iii) the International Development Agency (IDA), which provides development credits to member states whose annual per capita income is less than US\$610; (iv) the International Centre for the Settlement of Investment Dispute, which provides arbitration for disputes between foreign investors and their host states; (v) and the Multilateral Investment Guarantee Agency (MIGA), which insures foreign investors against specified categories of non-commercial risk and helps promote foreign investment in member countries. Any country that is a member of the IMF can join the World Bank Group.

Ball and McCulloch (1996: 124) briefly describe World Bank loans as follows:

The World Bank makes hard loans. This means its loans are at prevailing market interest rates and are granted only to sound borrowers for periods not exceeding 25 years. The Bank must make relatively safe loans with high assurance of repayment because its own funds are acquired through the sale of securities that must compete with government and private business offerings of all sorts. Investors would not buy World Bank securities, even at advantageous interest rates, if they felt the Bank's loans were insecure, because the Bank must repay the buyers of its securities out of proceeds and profits on its loans. To date there have been no defaults on loans made by the World Bank, and its bonds carry the highest rating available, that is, AAA. The World Bank has operated a profit every year since 1947.

Notably, the soft-loan section of the World Bank, the IDA, is able to provide loans with up to 40 years maturities, compared to 15-25 year maturities for the IBRD and IFC. The IDA may also grant 10 year

grace periods before repayment of principal or interest must begin, whereas the grace periods of the IBRD and IFC usually do not exceed five years. The IDA charges only three fourths of one percent on disbursed loan balances plus one-half of one percent on undisbursed loans, (Ball and Wendell, 1996: 128).

2.6 Loan Conditionalities

Donors have three basic instruments that they can use to encourage the adoption of good economic policies: money, conditionalities and technical assistance/policy dialogue, (O'Brien and Ryan, 2000: 33). In this context, the Bretton Woods institutions use a combination of all these in implementing their lending policies in Kenya, because the country has often seemed reluctant to implement conditionalities even when in dire need of donor funds.

Available literature review suggests that credits from the IMF have almost always had policy strings attached, but the movement of the World Bank into policy-related lending is more recent, with its introduction in 1979 of loans in support of Structural Adjustment Programmes (SAPs) and its growing use subsequently in support of the programmes (Killick, 1993: 312). The goal of the adjustment programme was to reduce budget deficits and meet debt repayment obligations. SAPs prescribed a variety of changes and often involved the devaluation of currency, raising of interest rates, lowering of

tariffs and quotas, sale and privatisation of public companies, and the promotion of exports.

To support SAPs, borrowing members filed a Policy Framework Paper (PFP) that detailed annual programmes they would undertake to reach the established goals; i.e. those agreed on between members and the two institutions. The Bank and the IMF monitored the progress of the programmes and to ensure proper use of their funds, they co-operated with each other in working with borrowing member-countries in Structural Adjustment Facilities (SAFs) or, if the problems were greater, Enhanced Structural Adjustment Facilities (ESAFs), (Ball and Wendell, 1996: 130).

Despite their importance, SAPs however faced widespread criticism for not benefiting poor people in indebted countries least who, critics contended, ended up paying the bills through scarce resources diverted to debt servicing and through the effects of the IMF/World Bank austerity programmes. Indeed, critics of SAPs in Kenya have argued that the significant achievements made earlier in the provision of basic services including health, education and infrastructural development had been systematically eroded with the introduction of SAPs, while levels of poverty increased. (Killick, 1993; Kiringai, 2001, Wamukonya, 2003).

The Poverty Reduction and Growth Facility succeeded the SAP in 1999, while the Poverty Reduction Strategy Paper (PRSP), succeeded the PFP. The PFP was prepared by the member country in collaboration with the staffs of the World Bank and the IMF as well as civil society and development partners. The PRSP was expected to be updated annually and described the country's plan for macroeconomic, structural and social policies for three-year economic adjustment programmes to foster growth and reduce poverty, as well as associated external financing needs and major sources of financing.

For instance, Kenya's PFP for 1996-1998 undertook to implement a sound policy framework and an appropriate investment programme to address the increasingly serious shortfalls in power supply, (GoK, 1994: 30). Further, the government committed to adjustment of power tariffs that would encourage economic consumption of power as well as exemption of key parastatals from the provisions of the State Corporations Act.

2.7 Developing countries' response to World Bank policy shift

Available literature gives considerable evidence of developing countries' response to the policy shift. Arising from their own assessments and World Bank recommendations aimed at increasing

economic efficiency, autonomy and legal and regulatory frameworks of power sectors, governments and international financiers are pushing the trend towards market based structures in developing countries, with the government's role becoming more of a regulator and policy maker. (Bayliss and Hall, 1996; Cicchetti and Sepetys, 1995).

The factors driving power sector reform in developing countries are quite different from those in developed countries. Developing countries need to attract private capital to invest in expanding and upgrading their power systems; improve managerial efficiency, accountability, and customer service. In contrast, power sector reforms in developed countries are driven by the desire to lower electricity costs through competition. (Newbery, 1995).

To address the critical challenges facing their power sectors and conform to World Bank prescriptions, therefore, many developing countries in the 1990s started reforming the way that they provided electricity services. They began opening power generation to private investment; privatising transmission and distribution, and even restructuring their power sectors to introduce competition and independent regulation. Ostensibly, this would stimulate private investment in the sector and thus free up large amounts of public

capital for other uses, promote managerial accountability and enhance customer service.

Pricing of electricity has posed considerable challenge to countries and development partners. The World Bank has tended to recommend economic pricing of electricity, arguing that this would help to reduce government deficits and international debt. Bayliss and Hall capture the electricity pricing dilemma thus:

“Many African electricity utilities are suffering from financial difficulties. This may be due to politically imposed tariff structures which do not raise sufficient revenue, or to poor management.” (Bayliss and Hall, 2000: 24).

Samuelson and Nordhaus (2002: 76-77) criticise political interference in the setting of energy prices as it leads to shortages when investors cannot cover their costs. They recommend that market forces should be allowed to prevail in the pricing of energy. Such market forces are inbuilt in Kenya's power tariffs, whereby the costs of foreign exchange and fuel, which fluctuate from one billing cycle to the next, are costed at rates prevailing at the time of purchase of the various inputs. The cost of the money paid by KPLC for electricity from various plants and loans paid by the government for various electricity projects is also included in the tariff.

In the case of Kenya, the switch to a focus on sector reforms followed realisation that while implementation of physical facilities up to 1990 was generally satisfactory, that of institutional improvements was less

so. The implication, therefore, was that major reforms were needed to provide a basis for efficient and sustainable development of the sector. For this reason, in the early 1990s the bank took the leading role among the government's development partners, in the dialogue on sector reforms, (World Bank, 2004: 5).

2.8 Examples of attempted reforms by other African countries

A review of some African countries' attempts at power sector reforms by Redwood-Sawyer (2002) reveals some similarities with Kenya's experiences.

In June 1999, the Ugandan government approved a power sector restructuring and privatisation strategy to make the sector financially viable and efficient; to meet the growing demands for electricity and to increase area coverage; to improve the reliability and quality of supply; to attract private capital and entrepreneurs and to take advantage of export opportunities. A new law – the Electricity Act – was enacted in 1999 to remove the monopoly of Uganda Electricity Board (UEB) and enable private participation in the sector; provide for an independent regulator – the Electricity Regulatory Authority – and facilitate privatisation of UEB.

The foregoing was preceded by the Privatisation and Utility Reforms Statute of 1993 which provided guidelines for reform and divestiture; classified public enterprises for divestiture and reforms and

established the institutional framework for policy implementation. The reforms in Uganda have resulted in the concessioning of power generation and distribution facilities formerly owned by UEB and also rural electrification projects, (Sawyer, 2002).

The Zimbabwe Electricity Supply Authority (ZESA) experienced poor performance as a result of unfavourable macroeconomic conditions in the country following a drought and political unrest in the early 1990s. This backdrop forced the government to initiate a series of reform measures aimed at becoming more self-sufficient in the power industry. However, the legal and regulatory machinery failed to invite private investment due to regulations related to pricing, staffing and capital budgets. Another cycle of reform started in 1998; and a subsidiary of Zesa – the Zimbabwe Power Company (ZPC) - was created to compete with independent power producers, signaling a more liberalised approach to the reform process, (Sawyer, 2002).

In Cote d'Ivoire, the power sector was initially state-owned. During 1990-1997, the sector was transformed to almost fully private owned utility operations. By 2002, the country had a total generating capacity of 1,100 MW comprising 270 MW state-owned thermal plants, 210 MW thermal plants owned by IPPs, and hydroelectricity generation of 420 MW. The legal and regulatory framework had also been strengthened to reflect the new aspect of competition and

privatisation of the sector. Subsequently, the government-owned Energie Electrique de Cote d'Ivoire) gave a full management contract to a private company – Compagnie Ivoirienne d'Electricite, (Sawyers, 2002).

Ghana's power sector is vertically integrated. The Volta Region Authority (VRA) sells bulk power to the Electricity Corporation of Ghana (ECG) for distribution and sale. As part of reforms, a licence has been issued to VRA for distribution of power. The World Bank has pushed reforms in Ghana through conditionalities tied to an IDA credit for the construction of a 330 MW thermal plant. Subsequently, the unbundling of VRA has commenced which, it is hoped, will ostensibly lead to further unbundling of its transmission business through a subsidiary company it has already formed. Further, the distribution network was demarcated into five distribution concessions which, however, have not been yet allocated, (Sawyers, 2002).

2.9 Globalisation and the end of the Cold War

Available literature supports the contention that the power sector reforms described in this paper can also be viewed within the context of globalisation, which started fast gaining momentum at the time that the World Bank also changed its lending policies.

In Kenya's case, the addition of a political angle to conditionalities set by donors in 1991 may be seen in the perspective of the end of the Cold War in 1989, which essentially eliminated the geopolitical

motivation for aid. That year, donors suspended aid to the country, and, for the first time ever, demanded the introduction of political pluralism as a condition for its resumption. Boschini and Olofsgard (2000: 2) contend that “according to political rhetoric, the purpose of development aid is altruistic with the reward for aid donations being the warm glow from giving people in need.

However, this altruistic motive has long been questioned by observers in this field, who argue that foreign aid has also been used for the donors’ own policy interests; as during the Cold War, (Boschini and Olofsgard, 2000: 2). Unfortunately for Kenya, the end of the Cold War coincided with weakening economic reform efforts in the country where there was also a perceived hardening of political lines just as donors were adding “good governance” and democratisation to their criteria for judging who should receive aid.

Generally, globalisation is defined as a process of ‘freeing economies’, so that trade between countries can take place more easily. Its proponents view this as the best way to enable economic growth. These are perceived to be multinational corporations, governments of highly industrialised countries and international financial corporations. The Division of Transnational Corporations and Investment, a specialised agency of the United Nations, estimates there were 37,000 international firms in the world in 2000. They

controlled over 206,000 foreign affiliates, which generated sales of over US\$4.8 trillion in 1991. As a result of this expansion, the foreign companies' subsidiaries have become increasingly important in the industrial and economic life of many nations, developed and developing, (Ball and McCulloch, 1996: 11).

To them 'freeing up' also means providing more opportunities for businesses to make profits and reducing the state's role as a producer or deliverer of services; a description that is in line with the World Bank and IMF thinking of the 1990s, as the following statements by the world's foremost financial and economic regulatory institutions indicate:

- 1 **“Increasing globalisation helps to expand opportunities for nations and, on average, helps workers in rich and poor countries alike.”** (*The World Bank, 1995*).

- 2 **“Globalisation is a positive development for the world economy...To begin with, globalisation is the continuation of the trend of growing openness and integration among economies that has brought the world a half century of unparalleled prosperity.”** (*Former Managing Director, IMF, Michel Camdessus*).

- 3 **“Anyone who believes that globalisation can be stopped has to tell us how he would envisage stopping economic and technological progress; this is tantamount to trying to stop the rotation of the earth.”** (*Renato Ruggiero. Former Director-General, World Trade Organisation (WTO)*).

However, the opponents of globalisation have variously described it as an attack on workers and their standard of living; a 'strategy' for capitalism to be able to survive, and a new form of colonialism. To its fiercest critics, globalisation is the march of international capitalism, a force for oppression, exploitation and injustice, (The Economist, September 29th, 2001: 3).

Globalisation has also intensified the North-South debate. Renowned British economist Michael Barrat Brown notes that it is a fallacy to imagine that macro-economic policies of freeing economies to market forces can effectively establish their comparative advantage. He adds:

... in a globalised economy, flows of goods and capital take place largely inside transnational companies and not between companies and individuals in the separate nation-states. Yet despite the sequence of failures, now increasingly documented by economic writers, the IMF and the World Bank continue to preach to the Third World the doctrine of free trade and salvation through the market... (Brown, 1995: 352)

Despite such criticism, however, it is within the context of globalisation that power sectors in developing countries are reforming.

2.10 Conceptual framework

A theory – any theory in any field – is a general explanation of certain selected phenomena set forth in a manner satisfactory to someone acquainted with the characteristics of the reality being studied, (Dougherty and Pfaltzgraff. 1996: 20). The process of theorising

involves accumulating facts about a particular field of practice, which leads to thinking about how bits and pieces of information can be pieced together to explain some aspects of practice. A theory is a set of interrelated concepts that explain some aspect of a field in a parsimonious manner.

In this research, several theories and concepts are inextricably linked. The theory of economic dependence is one of the relevant theories in this area of study because of the highly dependent nature of Kenya's economy as a whole, and the power sector in particular. Todaro notes that international-dependence models view developing countries as beset by institutional, political, and economic rigidities, both domestic and international, and caught up in a dependence and dominance relationship with rich countries, (Todaro, 2000: 91).³

Other international relations concepts on decision making, good governance, transparency and democracy also assist in the study of donor conditionalities and their impact on developing economies. For instance, GoK has normally considered both the political and economic expediency of increasing electricity tariffs, even when the World Bank has made tariff increases a conditionality for lending to the sector. The concepts of inter-dependence, privatisation and

³ Within this general approach are three major streams of thought: the neocolonial dependence model, the false-paradigm model and the dualistic-development model.

globalisation are also important in the analysis of reforms in power sectors and the roles of development partners.

The economic theory of the firm also forms an important conceptual framework of investigation because of the investment and management issues that underlie the relationship between Kenya and lenders to the power sector. Phelan and Lewin (1999: 5-6) contend that while the set of economic theories of the firm is large ranging from neoclassical theory to industrial organisation and from Adam Smith to Karl Marx, they however share a common set of assumptions. These are about: a) the need for exchange arising from specialisation; b) the need for coordination and cooperation among economic agents; c) the assumption of efficiency in economic organisation.

As the theory of the firm is operationalised in this study, supply and demand, financing and pricing form part of the conceptual framework. Planning for the sector⁴ is based on a least-cost basis, grounded on the economic theory of scarcity and efficiency.⁵ And because of Kenya's reluctance to embrace economic reforms, and the

⁴ See various Kenya national power plans and national economic development plans.

⁵ Goods are scarce because people desire much more than the economy can produce. Economic goods are scarce, not free, and society must choose among the limited goods that can be produced with its available resources.

Bretton Woods institutions' repeated cancellation of aid until such reforms are made, international relations theorists would describe the historical relationship between Kenya and donors in the context of a powerful international actor exerting its influence on a weaker entity, (Dougherty & Pfaltzgraff, 1996: 43).

Chapter Three

KENYA AND THE BRETTON WOODS INSTITUTIONS

3.1 Kenya and donors, a difficult relationship

Between 1970 and 1996, Kenya was a major receiver of official development assistance (ODA), which increased from an annual average of US\$205 million in the 1970s to more than US\$630 million in the 1980s and to more than US\$1 billion between 1990 and 1996. In 1990-91 net ODA inflows were equivalent to 14 percent of Kenya's GDP and to approximately 45 percent of the government budget, (O'Brien and Ryan, 2000: 471).

Despite such inflows, however, relations between Kenya and aid donors have frequently been characterised by periods of altercation, at times leading to delayed aid disbursement and even its cancellation. An article titled *Kenya Under IMF Tutelage* published in *The Economist*, aptly captures this relationship as follows:

“...the conditions for the new three-year US\$198m IMF loan are the toughest ever imposed by the Fund on any government. They contain more than 60 separate elements. The loan, which will unlock a further US\$300m from other donors and lenders, represents a virtual surrender of the country's sovereignty. ...Like several other African countries, Kenya depends on two things: rain and aid. Both have dried up recently, and the country is facing the worst crisis in its history,” (The Economist, August 5th, 2000).

The article was analysing new conditions set by the IMF for resumption of stalled aid to Kenya which, among others, stipulated that the Kenyan Parliament debate and pass a new anti-corruption law, and a code of conduct stipulating that all public officials must declare their assets. This conditionality was fulfilled in 2003 when annual declaration of wealth by public officials commenced. The government was also required to draw up a daily balance sheet for inspection by IMF officials, while a new team of Treasury officials would have direct financial control over other government departments. The new conditions were prescribed by the IMF regardless of the outcome of Parliament's deliberations.

Another example of this historical conditionality setting was illustrated in February 2003, when Dr Callisto Madavo, the then World Bank Vice-President for Africa, said at a press conference in Nairobi, Kenya, that the IMF was willing to release money that was held up provided that the government formulated a policy on the reform of parastatals; introduced a sustainable macro-economic framework; reformed the judiciary and legal system; privatised state telecommunications services provider Telkom Kenya; introduced legislation to curb corruption and improved transparency by enacting the Anti-Corruption and Economic Crimes Bill and the Public Ethics Bill.

The background of this statement was that the World Bank had been withholding two loan tranches of approximately US\$50 million each because of poor performance on policy and project implementation, and bad governance. The first tranche of US\$52.4 million under this particular disbursement had been released in 2000.

3.2 A brief economic history of Kenya

In order to understand Kenya's relations with donors, its aid dependency and donor conditionalities, it is important to review the history of the country's economic performance since independence in 1963.

Throughout the first decade after independence, Kenya enjoyed strong economic growth. GDP grew at an annual average of 6.6 percent while agricultural production grew by 4.7 percent, one of the best in Africa, even though Kenya had one of the world's highest population growth rates⁶. But being a non-producer of oil and like many other low-income countries, Kenya suffered a serious economic shock following the first substantial price increase by the Organisation of Petroleum Exporting Countries (OPEC) in 1973. This was repeated in 1979, (see Annex 4).

⁶ The Guinness Book of Records (1986) entered Kenya as the country which recorded the world's highest population growth rate of 5.4 percent at the time.

However, even before the oil crisis of 1973, there were signs that all was not well. By 1971 it was apparent that Kenya's economic growth record was unsustainable, partly because inappropriate agricultural policies, inadequate credit, and poor international terms of trade were contributing to the decline in agriculture, while the country's inward-looking policy of import substitution and the rising oil prices made the manufacturing sector uncompetitive. Furthermore, the government's massive intrusion in the private sector, lack of export incentives, tight import controls, and foreign exchange controls made the domestic environment for investment even less attractive (Warutere, 1998: 14).

In later years, these factors were compounded by falling commodity prices, drought, a coup attempt in 1982, incursion of refugees, especially from Somalia in the early 1990s, and an internal sometimes violent struggle for democracy and political pluralism in 1990 that ushered in the first multiparty elections in December 1992 (Warutere, 1998: 7).

3.3 The beginning of structural adjustment

Tony Killick underlines the fact that despite the good and realistic policies which the Kenya government often put in paper, lack of commitment to implementation was a key factor to policy failures, (Killick. 1984: 190-191). Such policies included those associated with SAPs introduced in the management of the Kenyan economy in the

1980/81 financial year in the face of Kenya's mounting economic problems. Kiringai (2001:7) notes that following the oil crisis and the rise in international interest rates in the 1980s Kenya, like other developing countries, was not in a position to service its debt and turned to the Bretton Woods institutions for assistance; which was conditional on implementation of SAPs. These SAP conditionalities generally centered around liberalisation of prices and marketing systems, fiscal sector reforms; trade regulation reforms, government budget rationalisation, divestiture and privatisation of parastatals and civil service reform, (GoK, 1997: 46).

SAPs however gained greater importance in Kenya's economic management with the publication of Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth. The paper was intended as a paradigm shift from African socialism towards a market economy, (Mwale, 2000). It reinforced Kenya's commitment to SAPs following a period of high budget deficits, high inflation and unsustainable current account deficits. The policy paper further underlined the importance of public sector expenditure controls, civil service efficiency and restraints on government borrowing from the Central Bank and commercial banks. It also addressed the reduction of the role of government in productive economic activities and strengthening the private sector through market-based incentives. Following its publication, the government turned to the IMF for

short-term financial support in 1988, marking the first era of economic stabilisation, (GoK, 1997: 56).

3.4 Budget deficit despite other economic improvements

But despite a considerable improvement in the balance of payments position due to high export volumes and improved terms of trade mainly from higher coffee prices and lower oil prices as well as good food output and low inflation, there was no improvement in the budget deficit. It worsened from 6.4 percent of GDP in 1986 to 7.6 percent of GDP in 1987 and still remained high at 6.9 percent by 1989. Moreover, government expenditure rose to over 30 percent of GDP. Despite various efforts, external debt and external debt service reached critical levels and the debt service as a percentage of export of goods and services stood at 34.1 percent by 1989.

This adverse economic situation had a profound impact on the relationship between Kenya and its donors, especially the Bretton Woods institutions, which adversely affected financing of power and other infrastructural programmes. Subsequently, the IMF led the donor community in expressing their displeasure about poor macroeconomic performance, corruption, governance and other issues such as political repression and, in November of 1991, the

Consultative Group⁷ suspended aid amounting to US\$400 million over lagging implementation of further economic reforms.

Following this punitive action by the donors, between 1991 and 1993, Kenya experienced the worst economic performance since independence. GDP growth stagnated and agricultural production shrank, inflation reached a record 100 percent in August 1993 and the government budget deficit was over 10 percent of GDP.

3.5 Donors set new conditionalities

The conditions set by the donors for resumption of the aid cancelled in 1991 were that the Kenya government implements the following: domestic and external trade liberalisation; creation of facilities for manufacturing export commodities including manufacturing under bond facilities and export processing zones; liberalisation of domestic interest rates and exchange rates regimes; deregulation of consumer prices of goods and services. Other conditions included allowing the following: foreign investors to repatriate their dividends freely and also to dispose off investments and repatriate proceeds; foreign owned companies with domestic operations to have access to domestic credit, and foreign companies being allowed to directly

⁷ A group that coordinated Kenya's donors until 1996. The principal country aid group meetings for Sub-Saharan Africa nations were Consultative Group meetings, organised and chaired by the World Bank, and roundtable meetings organised and chaired by the United Nations Development Programme.

invest in the generation of electricity. Also, for the first time ever, introduction of political pluralism was made a conditionality.

Donors lifted the November 1991 aid embargo and aid continued to flow between 1993-96 when the government began to implement a major programme of economic reform, in which it made major progress in liberalisation of both external trade, the domestic economy and democratic governance. Specific steps taken included the removal of import licensing and price controls, removal of foreign exchange controls, fiscal and monetary restraint, and reduction of the public sector through privatising some publicly owned companies and downsizing the civil service. The reforms led to a brief turnaround in economic performance, with real GDP growing by five percent in 1995 and four percent in 1996; while inflation remained under control.

Growth, however, slowed after 1997 averaging only 1.5 percent in 1997-2000. In 1997, political violence damaged the tourism industry, and a US\$218 million Enhanced Structural Adjustment Facility (ESAF)⁸ lapsed after the government refused to meet commitments made earlier to the IMF on governance and reforms. This included

⁸ In December 1987, the IMF expanded its existing SAP to create an ESAF. It invited "low-income developing nations" to borrow from it. In order to receive ESAF loans, just like with SAFs, countries had to agree to the IMF's conditionality and make general commitments to cooperate with the IMF in setting policies to the formulation of specific, quantifiable plans for financial policies.

the long standing dispute over the management of the energy sector which, donors had intimated, would be resolved through rationalisation of the parastatals involved in power development and distribution, private contractors invited to participate in generation of electricity and a regulatory authority established to enhance competition in the sector', (Warutere, 1998: 43). Renegotiation of two stop-gap power projects commissioned in 1996 - Iberafrika and Westmont Power - was also recommended⁹.

Aid was suspended again between August 1997-98 because of the government's perceived failure to honor its promise to stamp out corruption, strengthen the energy sector through a legislation enacted within an acceptable frame, and to prosecute all those involved in the notorious Goldenberg scandal.¹⁰ Along with the IMF suspension of aid was the suspension of a US\$90 million structural adjustment credit from the World Bank. The government's response to the IMF-World Bank action was to commit itself to 'expeditiously' address their concerns. It promised to take action on energy sector

⁹These were commissioned in 1996 to help reduce an electricity supply gap following prolonged delay of new projects.

¹⁰ In this scandal, it is alleged that Kamleshi Pattni, a businessman, devised a scheme in which he purportedly exported gold and diamonds worth hundreds of millions of dollars, although Kenya is not a producer of either mineral. Pattni then allegedly presented fictitious export compensation claims for payment by the Central Bank of Kenya. The government appointed a commission of inquiry in 2003 to investigate the scandal. The inquiry continues.

management, including legislation to provide for the reform of the sector and the establishment of an autonomous regulatory board.

Therefore, in 1997, in line with the policy of national economic liberalisation outlined in February 1996, (GoK, 1996a), serious reform implementation in the power sector commenced. In a policy statement, the government promised to liberalise the domestic market; increase managerial autonomy in public enterprises and to promote private investment in the power sector. The reforms are at various stages of implementation. The domestic market has been largely liberalised, managerial autonomy is increasingly being promoted in public enterprises, e.g. with boards of directors having more leeway in the engagement of senior staff, while power sector reforms entail more investment by the private sector.

Also, in line with donor recommendations, the Kenya Anti-Corruption Commission was established in 1999 and measures taken to improve the transparency of government procurements following the formulation of the Public Procurement Regulations; whose bill is now before parliament before it becomes law; and reduction of the government payroll through retrenchment of civil servants. In this regard, the government retrenched over 23,000 civil servants in 2000-01. In 2004, it outlined plans to retrench another 21,000 between 2004 and 2007.

Following progress in implementation of the Bretton Woods institutions' recommendations, in July 2000 the IMF signed a US\$150 million Poverty Reduction and Growth Facility, and the World Bank followed shortly thereafter with a US\$157 million Economic and Public Sector Reform Credit. However, once again the IMF suspended lending to Kenya at the end of 2000, citing rampant government corruption.

It was not until January 2003 when the National Rainbow Coalition (NARC) government took over the government from the Kenya National Union (KANU), which had formed the government since 1963, that the country commenced serious discussions on aid resumption with the IMF. This culminated in a US\$240 million lending programme commitment in November 2003. The positive decision by the IMF was also meant to unlock fresh funds in excess of US\$525 million from other bilateral and consortium lenders, including US\$300 million in debt rescheduling arrangements by concessional creditors.

At the time, the NARC government was facing a budget deficit amounting to KShs70 billion and key donors, among them Britain's Department for International Development (DFID), European Union (EU), African Development Bank (ADB) and the World Bank, had declined to finance the country's budget deficit without a positive

signal from the IMF. By making its loan commitment to Kenya, therefore, the IMF paved the way for the government to negotiate for funding with other foreign financiers.

The conditionalities prescribed by the IMF for resumption of aid this time were: enactment of new anti-corruption legislation; rebuilding of the integrity and capacity of the Kenya Revenue Authority (KRA); initiation of restructuring of public expenditure in favour of social and economic outlays; reform of the financial sector – particularly the restructuring of the insolvent National Bank of Kenya; the transfer of the banks licensing authority from the Ministry of Finance to the Central Bank of Kenya; and accelerated privatisation of public enterprises.

However, by July 2004, top international donors, among them the EU, the United States and Japan warned Kenya that it risked losing vital funding if official corruption was not checked. They expressed dismay at the handling of scandals involving government payments and asked for detailed investigations. Combined, the EU's 25 nations are the biggest aid financiers to Kenya, and by August 2004 froze aid worth sterling £83 million in grants, citing corruption.¹¹ This time, the IMF followed suit and also put its US\$240 million commitment on hold.

¹¹ The EU cited concerns over the Anglo Leasing "affair", which involved a £20-million passport computer system.

However, aid directly linked to specific projects was not affected and in March 2004, the government held discussions with the World Bank for energy sector lending amounting to US\$208 million under the Energy Sector Recovery Project. The loan became effective on October 1 of the same year, provided a number of conditions were met including: approval of a National Energy Policy by government; payment of government bills due to KPLC; and institutional and capacity building for KPLC whereby the company would source a management consultant through international bidding. The World Bank's approval of the loan paved the way for the boards of co-financiers French Development Agency (AFD), European Investment Bank (EIB) and Nordic Development Fund, to approve their portions of the credit. The full project financing requirement is US\$225 million, to be financed as follows: World Bank (IDA) (US\$80m); AFD (US\$25m); EIB (US\$75m) and GoK/KPLC/KenGen (US\$35m).

Chapter Four

KENYA'S POWER SECTOR REFORMS

4.1 Historical overview

The long and complex nature of Kenya's power sector is traceable as far back as 1875, when the formal history of the country's electrification¹² began. That year, the Sultan of Zanzibar, Seyyid Bargash, acquired a generator to light his palace and nearby streets. The generator was sold to Harrali E. Jeevanjee of Mombasa in 1908, who later transferred it to the Mombasa Electric Power & Lighting Company. In the same year, (1908), Clement Hertzell was also granted the exclusive right to supply electricity to the then district and town of Nairobi. This led to the formation of the Nairobi Power & Lighting Syndicate.

In 1922, the two utilities in Nairobi and Mombasa merged under a new company incorporated as the East African Power & Lighting Company (EAP&L). In 1932, EAP&L acquired a controlling interest in the Tanganyika Electricity Supply Company Ltd, (TANESCO). Meanwhile, in 1948, the Uganda Electricity Board was established to take over distribution of power in that country; and in 1954, the Kenya Power Company (KPC) was created under the management of EAP&L for the purpose of transmitting power from Uganda through the Tororo-Juja line. In 1964, EAP&L sold its majority stockholding

¹² The early history of Kenya's power sector is told in great detail in Hayes, Charles. 1983. Stima: An Informal History of EAP&L. Revised and edited by Macgoye, Marjorie Oludhe. Printpak., Nairobi, Kenya.

in TANESCO to the government of Tanzania and, in 1983 with its operations confined solely to Kenya, EAP&L was renamed the Kenya Power & Lighting Company Limited (KPLC).

4.2 Regulatory and legal framework of the power sector

Electricity in Kenya, other than wind generated, is harnessed from water, geothermal, thermal, gas and diesel. Laws governing the management of water, fossil fuel and land planning and use are therefore relevant to the sector. This is in addition to the Electric Power Act, which directly regulates the generation, transmission, distribution and supply of electric power, (MoE, 2001: 61).

Laws related to local governments and regional authorities are also relevant due to their role in the management of water and other resources for power generation like Tana and Athi Rivers Development Authority (TARDA) and Kerio Valley Development Authority (KVDA) where major power generation projects are found. The Water Act, the Forest Act and the Environmental Management and Coordination Act are of significant importance as are taxation laws such as the VAT Act, which is relevant to pricing of electricity. The Geothermal Resources Act, 1982, is important in the facilitation of exploitation of geothermal resources. The Companies Act also applies in the case of KPLC.

Apart from the various legislation currently impacting on the sector, the complexity of the previous structure of the electricity sector is briefly summarised thus:

KPLC had power purchase arrangements with the government-owned KPC, TRDC, TARDA and KVDA. This set-up had given rise to disputes on issues of assets ownership and responsibility for debt service and was not conducive to private investment. Restructuring was therefore necessary to create commercial-type relationships among the companies, (World Bank, 1997).

In 1997, in line with the government's liberalisation policies and World Bank recommendations, the Electric Power Act (Cap 314) and Electric Supply Lines Act (Cap 315) were repealed and replaced by the Electric Power Act (1997). This would ostensibly facilitate reforms in the sector, and continued World Bank support and by extension other donor funds¹³ for the power sector. The new law facilitated the entry of private sector players into the sector and private sector financing for it; as well as sectoral reorganisation and restructuring and other far-reaching reforms.

Among the salient features of the new law, and which embraced the prescriptions espoused by World Bank policy, were the separation of regulatory functions and policy formulation in the power sector, both of which were previously performed by the Minister for Energy. The

¹³ Other donors take the cue from the the World Bank and the IMF in making aid disbursement decisions.

new law provided for the establishment of the Electricity Regulatory Board (ERB) whose functions would include setting and reviewing of consumer tariffs, approving power purchase agreements, promoting competition in the sector where feasible, and enforcing environmental, health and safety regulations. Subsequently, the functions of electricity generation were split from electricity transmission and distribution. Until then, all these functions were carried out by KPLC through complex management arrangements with other power sector companies.

The new regulatory and management framework of 1997 began to unbundle the sector following the enactment of the Electric Power Act, which facilitated simplification of the hitherto complex sectoral organisation. Further, the new law created a mechanism for the long term sustainability of private sector participation in the sub-sector. The reforms in the sector were preceded by several studies financed by the World Bank including (i) Update of the Least Cost Power Development Plan (1991); (ii) Electricity Tariff based on Long Run Marginal Costs (1993); (iii) Reorganisation of the Power Sub-sector (1997); (iv) Legal and Regulatory Reforms (1996).

These reports laid the basis for the power sector restructuring which commenced in 1997 and which would ostensibly facilitate separation of the commercial function from policy setting, regulatory and

coordinating functions; see the implementation of power projects on the basis of improved least cost investment planning; create more competitive market conditions in electricity generation; restructure power companies and require them to operate on commercial basis supported by a system of performance contracts and with transparent financial relationships; adjust the structure of electricity prices to ultimately reflect long run marginal cost of supply; lead to demand and supply side efficiency improvements in the sector and industry.

KPLC, KenGen, TARDA and KVDA are all governed by the State Corporations Act, which, however, is viewed as severely limiting the management and operational autonomy of the various entities in the power sector as it gives the president and the responsible minister wide discretionary powers over them. For example, the President may appoint and remove board members, and he may issue directives which must be implemented by the board. The Minister has discretionary power over hiring and staff emoluments. In the Budget Speech of 2004/05, the government announced its intention to increase private sector participation by reducing government equity in KPLC to below 39 per cent as well as remove it from the purview of the State Corporations Act.

The other legislation affecting the generation, transmission and distribution of power are the Geothermal Resources Act, and other laws that deal with foreign investment and with land use. There is, however, currently no environmental legislation for the sub-sector. However, donors and the government now expect a full environmental assessment and public disclosure of the same for power projects.

The Geothermal Resources Act regulates use of Kenya's geothermal resources. It establishes that the resources belong to the state and confers power over them to the Minister of Energy who issues licenses for exploration and exploitation and may impose levies, rentals and royalties for use of the resources.

4.3 Restructuring undertaken in the power sector

Today, Kenya's power sector is largely government owned through its electricity parastatals – KenGen (100%) and KPLC (51%), although reforms have led to reorganisation of the parastatals involved in electricity generation and supply. These functions are now vested in Kengen and KPLC, respectively, thus eliminating duplication of efforts and competition for limited resources. Power generation was also liberalised to broaden the financial resources base through private sector participation.

Before 1997, there were five government owned companies operating in the sector. Following is a summary of the previous and current sector set-up and the various entities. (See Annexes 6 and 7).

4.3.1 Tana River Development Company (TRDC):

The defunct TRDC, which was wholly government-owned and managed by KPLC, was created in 1964 as a separate company to develop the hydroelectricity potential of the Tana River. It was responsible for development of major hydro stations of Kindaruma (44 MW), Kamburu (92 MW) and Gitaru (145 MW), in the Seven Forks Area of the Tana River. A loan agreement was signed between TRDC and TARDA whereby the latter would pay a development surcharge of 15 percent on the total project cost during the construction period of the power stations.

4.3.2 Tana and Athi Rivers Development Authority (TARDA)

Tarda, a wholly owned government parastatal, was formed in 1974 to develop several basins in the Tana River including their hydroelectric, irrigation, fisheries and associated tourism potential. Tarda owns the Masinga (40 MW) and Kiambere (144 MW) power stations. Prior to the reforms of 1997, it also owned the transmission lines associated with the stations and sold power in bulk to KPLC which, however, operated and maintained the power facilities.

Masinga reservoir and power station were constructed between 1978-81 at a cost of US\$107 million financed through a very soft loan and grants provided by German development bank - KfW, European Investment Bank (EIB) and Overseas Development Agency (ODA). Kiambere power station was also constructed by Tarda between 1983-89 at a total cost of US\$321 million. It was financed through mixed credits provided by several donor agencies including World Bank, KfW, Canadian International Development Agency (CIDA), Swedish International Development Agency (SIDA), Overseas Development Agency (ODA) and the African Development Bank (ADB).

The financing arrangement was that KPLC would pay Tarda in equivalent Kenya shillings all external debts it contracted, as well as enhanced interest rates on all soft loans on-lent to Tarda by the government under the interest differential arrangement. Under this arrangement, Tarda was expected to earn between US\$5 million to US\$6 million per year to cover the non-power related costs; as it also engages in other non-power economic activities like irrigation and agriculture.

However, in 1988, the government instructed KPLC to direct payments to Treasury on the same terms as those it had with Tarda. Although this reduced KPLC's debt servicing costs by US\$5 million per year to enable it to keep the electricity tariff low in the early 1990s, Tarda lost direct income of the same amount. To partly

compensate the authority for the loss of revenue, in 1994 KPLC was instructed by the government to provide KShs55 annually to Tarda for maintenance and preservation of the dam catchment areas.

4.3.3 Kerio Valley Development Authority (KVDA)

KVDA, which is fully government owned, was created in 1979 as a development authority very similar to Tarda to implement the Turkwel irrigation and power project (106 MW). KVDA built Turkwel power plant between 1986 and 1991 at a total cost of US\$379 million (based on the exchange rate between the French Franc and US dollar ruling in 1986 when the contracts were signed). The project was constructed on a turnkey basis using French mixed-credit financing, French consultants and contractors. All loans were secured by the Treasury.

Unlike Tarda, no on-lending agreements between KVDA and GoK, or lease agreements between KVDA and KPLC, were signed. However, KPLC was directed by the government to pay approximately US\$48 million (or 12 percent of the total construction cost of the project) as development surcharge during its construction. In 1994 (long after the project completion), KPLC was instructed to pay 3 US cents per KWh directly to Treasury for all units generated at Turkwel to partly offset the Turkwel loans. KPLC was also instructed to pay KShs45 million per year to KVDA for maintenance of the dam and catchment preservation.

Before 1997, both Tarda and KVDA had their own boards of directors and management staff, but all their power stations were operated and managed by KPLC under an operational agreement. The bulk power generated by the two development authorities was sold to KPLC. Currently, the power stations are operated by KenGen, which owns the generating assets.

4.3.4 The Kenya Electricity Generating Company (KenGen) (formerly Kenya Power Company (KPC))

KenGen, which is wholly owned by the Government, was created in 1954 as KPC to import electricity from Uganda for sale by EAP&LC. Before the reforms of 1997, it owned the interconnection line with Uganda and other transmission lines; the first geothermal power station at Olkaria; and two small hydro plants (Tana and Wanji - 14 and 7 MW, respectively). Like TRDC, KPC had a separate board but no staff of its own and was managed by KPLC under a management contract. Prior to 1997, KPC sold power generated from its plants and the power imported from Uganda to KPLC; but now only sells power generated from publicly funded generating projects.

The operations of KPC, whose name changed to KenGen in 1998, were separated from KPLC in 1997. All publicly funded generating projects and plants and assets were transferred to KenGen from KPLC, TRDC, KPC, TARDA and KVDA in 1999. However, TARDA

retained the ownership of Masinga and Kiambere dams, while KVDA retained the ownership of Turkwel dam; but the electricity generating components are administered by KenGen, which sells power in bulk to KPLC.

The transfer of power-related assets to KenGen from Development Authorities (TARDA and KVDA), and leaving the dams and related civil works with the development authorities, has created a certain animosity between KenGen and the two organisations with regard to loss of revenue and fair compensation for the preservation of the catchment areas and other non-power related activities.

4.3.5 *The Kenya Power & Lighting Company (KPLC):*

KPLC is a limited liability company with majority Government shareholding (51%) and is quoted at the Nairobi Stock Exchange. KPLC buys power in bulk from KenGen and Independent Power Producers (IPPs), which it retails to more than 650,000 customers.

Before the reforms of 1997, KPLC managed both KPC and TRDC as well as the generation facilities of Tarda and KVDA. At the time, the company also owned and operated some small hydro stations, all thermal¹⁴ generating plants in the country and operated all the generation and transmission systems.

¹⁴ Thermal power is electricity derived from steam produced by heating water using fuel.

Reforms in the sector have simplified the previous complex financing arrangements in the sector whereby both KPC and TRDC were entirely managed and operated by KPLC, and sold power to KPLC under “ascertained cost” principle. Under this arrangement, all operational, development and debt servicing costs of the two companies were met by KPLC as and when they were incurred. This “ascertained cost” principle was entrenched in the bulk purchase agreements.

KPC and TRDC were not expected to pay any duties and taxes on imported material, or pay and corporate tax or to make any profits or hold any reserves for future developments, as these would be taken care of by KPLC through the ascertained cost principle and development surcharge.

KPLC is now the only institution licensed to distribute and transmit electricity in Kenya and owns all transmission and distribution assets in the country, some of which were transferred to the company from TRDC, KPC, Tarda and KVDA. KPLC also implements the government’s rural electrification schemes. Prior to 1997, KPLC was also responsible for the preparation of all the power sector’s expansion programmes.

Following separation, an interim bulk Power Purchase Agreement (IPPA) was signed in August, 1999, between KenGen and KPLC, and

KPLC's retail tariff was also adjusted upwards, to allow both companies to recover their operational and development costs.

But because of massive load shedding between 1999 and 2000 and down-turn of the economy, KPLC's total revenue reduced considerably compared to the projections on which the 1999 KenGen bulk tariff¹⁵ and KPLC's retail tariff had been based. KPLC could not therefore pay KenGen on time and KenGen in turn could not service its debts, or pay its share of development costs for major projects it was implementing at the time – Olkaria II and Sondu Miriu. This created a lot of frustration and anxiety between the two companies.

In July of 2003, the government indirectly injected KShs19.3 billion into Kengen and KPLC through conversion of several long-term loans into equity in both companies. The following year, KPLC made a modest profit for the first time in five years. (See Annex 5).

As part of the reforms, in 2001, the Government and the Board of Directors of KPLC instituted some corporate restructuring aimed at improving operational efficiency and reducing staff costs. Consequently, the company reduced staff and changed its organisational structure. KPLC and Kengen also began outsourcing of

¹⁵ Bulk tariff refers to the wholesale price KPLC pays to Kengen.

non-core activities such as security and cleaning services; with KPLC also outsourcing some construction of low to high voltage lines.

4.3.6 Independent Power Producers (IPPs)

IPPs build, own and operate their own power stations then sell power in bulk to KPLC with which they sign power purchase agreements. IPPs rely on equity investments, commercial loans and self-finance to implement their projects. Lenders to IPPs also perceive high country risk in Kenya, and hence their bulk tariffs are considered as high because money lent to them attracts high interest rates and short repayment periods. Following liberalisation of generation of electricity, the following plants were developed by IPPs between 1997 and 2002: (a) 56 MW Iberafrica plant in Nairobi; (b) 46 MW Westmont plant in Mombasa; (c) 75 MW Tsavo Power Station in Mombasa; (d) 14 MW Orpower Station at Olkaria, Naivasha.

4.3.7 The Electricity Regulatory Board (ERB)

ERB was established by the Electric Power Act 1997 to perform all the regulatory functions within the sub-sector hitherto performed by the Ministry of Energy such as: review and approval of retail and bulk tariffs; enforcement of environmental and safety regulations; investigations of complaints made by consumers of electricity; making recommendations to the Ministry of Energy for granting and revocation of generation and distribution licences.

4.3.8 *The Ministry of Energy (MoE)*

Prior to 1997, in addition to formulating sub-sector policy, the Minister for Energy also had control over bulk and retail electricity tariffs and all cross-company financial and debt arrangements. The minister was also the dispenser of the licenses needed to participate in any of the sector's activities and could revoke or modify the terms of a license during its life. However, such wide-ranging powers were not conducive to the efficient operation of the sector and of the accepted industry and business practices which are based on a clear separation of the ownership, regulation and operation of the sector.

The ministry was also responsible for overseeing the activities of KPLC, KPC, TRDC, Tarda and KVDA, and was involved in the implementation of all major projects in these companies. Following the reforms, the ministry is mainly responsible for policy formulation and granting and revoking generation and distribution licences upon recommendation of the ERB; and settlement of disputes arising from parties aggrieved by ERB's decision(s).

4.3.9 *Rural Electrification (RE) Fund*

This was set up in 1973 and is coordinated by the Ministry of Energy through an ad hoc committee. It is implemented by KPLC as a contractor; but all rural electrification assets are owned by the government. The government's policy objectives are to expand access to electricity as a means of promoting sustainable socio-economic

development for rural communities. The government's goal is to provide electricity to about 20 percent of the rural population by 2010. (MoE, 2004).

4.4 Pricing of electricity and financing arrangements in the power sector

The power sector is financed from the total revenue collected by KPLC from its retail tariff charged to various consumers of electricity. Out of this total revenue, KPLC is expected to pay for bulk purchase of electricity to the generating companies, including development surcharge and fuel oil (under normal circumstances generation costs account for 65-70 percent of total revenue collected); pay for rural electrification schemes, meet its own operation and administration costs, service its debts, pay duties and taxes, invest in its future distribution and transmission facilities, pay dividends to shareholders, including the government, and hold some reserves for future development.

Kamfor Co. Ltd. (2001: 79) describes the price of electricity like:

“...any other commodity, which depends on the cost of production and return on investment. As electricity in Kenya is produced from hydro, geothermal and oil, final prices are determined by inputs from these sources. They each have different costs for each unit produced, and therefore, the KPLC consumer price will depend on the mix of energy sources. The price structure of electricity charged by the KPLC consists of a tariff that involves cost of power plus a reasonable return. In addition to this, there are other levies placed on the tariff.”

Until 1998, the retail tariff was set and approved by the Ministry of Energy to cover all distribution, transmission and generation costs incurred by KPLC. The last phased electricity tariff adjustments in Kenya were made between March 1994 and August 1999; after the government and development partners concluded that the previous tariffs were too low level even to meet the operating costs and inadequate funding for future projects.

For a long time, appropriate power prices were a bone of contention between the Kenya government and the World Bank and the issue featured severally in meetings and letters between the two. In November 2000, for instance, the World Bank warned that Kenya would not receive up to two-thirds of the newly-approved loan for emergency power unless the government implemented plans to privatise power generating and supply enterprises and also raise the average electricity tariff to 75 percent of long run marginal costs (LRMC). (Kelly, 2000).

Munasinghe and Warford (1982) note that a tariff based on LRMC deals with future costs over a long period of e.g. five to ten years, so that the resulting prices in constant terms tend to be quite stable over time. In this regard, the Kenya government had already committed itself to raising tariffs in three instalments starting in March 1994 and ending in 1996. In the first instalment, a nominal increase of about 60 percent in the average tariff raised it to about 55 percent of LRMC.

The second instalment, scheduled for March 1995, was postponed since the average tariff had already reached the 65 percent of LRMC target due to appreciation of the Kenya shilling. The instalment of October 1, 1996 raised the average tariff to about 73 percent of LRMC.

Earlier, the World Bank (1997) noted that the government had given KPLC leeway to automatically adjust tariffs to reflect changes in the cost of external debt service arising from fluctuation in the exchange rate of the Kenya shilling. "Further adjustments would be determined on the basis of an update of the Tariff Study¹⁶ to be completed by November 1997 and recommendations, *satisfactory to IDA*, would be implemented during 1997-98," said the report.

The bank added the clause that "this issue will also be addressed under the Bank's macro-economic dialogue, as the agreement between the Government and IDA on an action plan for the implementation of further tariff adjustments is a condition for the Structural Adjustment Credit's second tranche release, (World Bank, 1997: 19). Hence, with that statement, the issue of tariff adjustment became a conditionality for continued support to the entire economy by the IMF; and not just to the power sector by the World Bank.

¹⁶ This was undertaken by Merz & McLellan in 1999.

4.5 Other instruments used to achieve reforms in the power sector

Apart from the regulatory and legislative framework, the government has used several other instruments to achieve power sector reforms as follows:

- In 1996, one of the strategic measures contained in the **Policy Framework Paper (PFP)** was to exempt KPLC and Kengen from the State Corporations Act in order to enhance their managerial autonomy. The main objective, in line with World Bank recommendations, was to achieve commercially viable operations of strategic enterprises with the government and management relationships based on an arms length monitorable performance criteria. However, the two companies were returned to the purview of this law in 2003.
- The **Poverty Reduction Strategy Paper (PRSP)** 2000-2003 prepared by GoK and supported by the IMF, also outlined short and medium term measures for the sector, including review of the power market structure.
- Kenya's **National Development Plan** is another economic policy guideline covering five-year periods. In the plan for 1997-2001, the government pledged "to implement further measures in the power sector with a view to improving supply of electricity in

the country. These measures included “the separation of regulatory functions from commercial functions and long-run marginal costs, in order to facilitate mobilisation of resources, encourage economic consumption of electricity and attract private sector investment in the sector...” (GoK, 1997: 100).

- Further, in a **Memorandum of Economic & Financial Policies** of GoK¹⁷ 2002-03, the Central Bank of Kenya Governor and the Minister of Finance pledged that the government would accelerate and broaden the scope of privatisation of key public enterprises. The same paper indicated that legislation was being prepared to separate the regulatory and commercial functions of the power sector, facilitate its restructuring and promote private investment. It also noted that an action plan was being formulated to provide for the commencement of the separation of generation, transmission and distribution and articulate the reforms in the organisation, management and financial structure of KPLC and other power companies. This, as earlier stated, was achieved in 1997.

- Such commitment was also illustrated through various documents such as a **letter to the World Bank on Sector Development**

¹⁷ See the Memorandum of Economic & Financial Policies of GoK 2002-03 at <http://www.IMF.org/>

Policy dated 15th November 1996. In the letter, the government outlined its overall strategic objective to create enabling conditions for an efficient energy sector and eliminating electricity supply deficits. Notably, the letter agreed to the conditionalities spelt out by the World Bank as the basis for its resumed funding for the sector. The letter was written to then World Bank President, Mr James D. Wolfenshohn, by the then Kenyan Minister for Finance, Mr Musalia Mudavadi. It outlined the policy objectives, role of government in the power sector, restructuring and commercialisation of the power companies, private sector participation in the power sector, least cost investment planning in the sector, capacity building in the sector, energy pricing, energy efficiency and renewable energy.

The statement of commitment was crucial because the country was in dire need of new investment in power generating projects following prolonged project delays.

- The **Sessional Paper No 4 on Energy** formulated in 2004 captures all the foregoing issues and reiterates the government's commitment to privatisation of the sector and to further splitting KPLC into two entities charged with transmission and distribution of power, respectively.

- The government plans to transform the ERB into an autonomous **Energy Regulatory Commission (ERC)** for both the power and petroleum industries. The ERC will be freed from the constraints of the **State Corporations Act**, thus making it autonomous. The rules related to appointment of its commissioners, their security of tenure, conflict of interest provisions, etc, are being revised under an **Energy Bill**, now before Parliament before it becomes law, to enhance the independence of the regulator. The authority for licensing power operators will be vested in the regulator as will the authority to promulgate secondary regulations.
- Once it becomes law, the **Energy Bill** will provide the legal basis for implementing the envisaged industry structure by allowing for generators to sell power to bulk customers, thus opening for the (i) establishment of a **rural electrification agency** to promote expansion of power to rural and peri-urban areas; (ii) allow dual licenses for generation and distribution (iii) encourage, through automatic licensing without payment of fees, small renewable systems and small hybrid systems below a stated threshold level to operate.

Chapter Five

ANALYSIS OF THE ROLE OF THE WORLD BANK IN KENYA'S POWER SECTOR

5.1 The genesis of World Bank-influenced reforms

Planning for power generation, transmission and distribution all over the world is done on a long-term basis. Like all other countries with similar capital-intensive projects, Kenya makes long term plans due to the long lead time necessary to source financing for the sector. Sector plans are outlined in the country's National Development Plan and articulated in detail in the national power development plans, which cover periods of 20 years with interim updates in-between as necessary. The latest interim update was done in 2004.

The country's power projects are selected on a least cost development basis to the national economy; i.e their development is according to their national economic merit. Through the least cost development strategy, the government conducts an economic analysis on the available alternative sources of power based on their construction costs and the operational costs of generating power in the future. The plans are predicated on the fact that installed capacity should always be more than demand to cater for regular maintenance and any other unforeseen outages.¹⁸

¹⁸ The internationally acceptable excess capacity is no less than 15 percent of the installed capacity.

Because of its heavy dependence on donor funding, the fluid nature of donor-government relations, particularly with the World Bank and the IMF, have often been mirrored in Kenya's power sector. Between 1971 and 1988, the soft-loan section of the World Bank, the IDA, provided seven loans and credits totaling about US\$212.2 million to Kenya for financing power investments. These were provided under the World Bank policy whereby provision of electricity was viewed as a social obligation and financed by concessionary loans.

In 1993, on recommendation of its development partners, the Kenya government launched an economic reform programme which, among other things, aimed to improve the private investment environment and access of ordinary Kenyans to basic social services such as education. According to the new policy, provision of electricity would no longer compete for scarce public funds with such social priorities as education and health; but would instead be mainly financed by private sector funds.

In this regard, the World Bank had indicated to the government as far back as 1988 that it could not support new investments in the power sector without agreement on sector reform policies and a programme for implementation. At the time, the Bank had raised the following issues in regard to electricity supply in Kenya: low prices in relation to the power sub-sector's financial requirement and the economic

cost of supply; the complexity of the power sector organisation; the need for annual update of, and adherence to, the least cost power expansion plan; the need to incorporate environmental analysis in project feasibility studies.

The following year in 1989, the World Bank put on hold its commitments to the power sector citing high level corruption tied to the controversial development of the Turkwel Hydro Power Project with money borrowed by the government from French commercial banks. The Kenya government had signed a contract in 1986 with the French contractor Spie Batignolles to finance the Turkwel Gorge Hydro-Electric Project at a price that was more than double what the Kenyan government had budgeted for, despite warnings by the European Commission in Kenya.

There was also no international competitive bidding and the cost of US\$270 million was thought to be double what it would have cost had it been open to competitive bidding. Kenya suffered from considerable controversy over the building of the dam, which was the subject of damning assessment as it also had no environmental study. Donors claimed that the contract was awarded on the basis of large kickbacks paid to senior Kenyan government officials, (Warutere, 1998: 38).

5.2 The World Bank's role in combating power shortages

Directly related to the cancellation of aid to the power sector over the Turkwel fallout, in 1990 the Ministry of Energy forecast in the Power Development Plan that Kenya would experience major capacity shortfalls if new projects to inject an additional more than 250 MW did not materialise.

Therefore, in 1991, in consultation with energy sector donors, the government drew up the generation expansion plan for the 20-year period 1991-2010. The plan proposed projects with a total installed capacity of about 380 MW to be implemented between 1992/93 and 1997/98 to meet the growing demand, then standing at six per cent per annum¹⁹.

But the recommended generation plan was affected by that year's cancellation of aid to the entire Kenyan economy by major donors (see Chapter II); and at a time when the country faced inadequacies of power generation, transmission and distribution. No new generation plant was implemented during the period, until 1996 when two stopgap IPPs – Westmont Power and Iberafrica – totalling 95 MW, were commissioned to fill the gap. Table 5.1 shows the

¹⁹ Between 1999 and 2004, however, annual demand growth fell to an average of 1.4 percent.

planned and actual status of planned generation plants implemented between 1992 and 1998.

Table 5.1 *Planned and actual generating projects implemented between 1992 and 1998*

Proposed	Size	Actual
1992/92 diesel	90 MW	
1993/94 geothermal	60MW	
1994/95 gas turbine	50 MW	
1995/96 geothermal	60 MW	
1996/97 Sondu Miriu		
1997/98 geothermal	60 MW	Iberafical 43 MW Westomont 44MW

Source: KPLC

Despite the commissioning of the stop-gap plants, Kenya's National Development Plan, 1997-2001 (pp. 99-100) stated that Kenya's [then] electricity capacity was inadequate, with demand regularly exceeding supply particularly during dry seasons when the power generating dam reservoir levels were low or when some of the generating plants broke down or were out of service for maintenance. This, noted the plan, led to frequent rationing of power.

In May 1997, the World Bank Staff Appraisal Report on the Kenya Energy Sector Reform and Power Development Project also noted that the power system was inadequate to meet demand. The report reiterated that, subsequently, peak load²⁰ shedding had become unavoidable and KPLC was implementing daily power rationing that curtailed supplies during the morning and evening peak hours.

Table 5.2 Implementation of least cost power plan

The LCPDP of 1997, on which the generation programme was drawn up, is shown comparing the estimated on-line date of completion with

PLANT	CAPACITY MW	ESTIMATED ON-LINE DATE	ACTUAL ON-LINE DATE
KIP GT Rehab, KenGen	30	Aug' 98	Dec' 98
KIP I, DIES, KenGen	75	Aug' 99	Oct' 98
GIT. NO.3 UNIT, KenGen	72	Jan' 00	Mar' 00
KIP II DIES, TSAVO	75	Jan' 00	Sept' 01
OLK II GEOTHERMAL, KenGen	64	Sept' 01	Sept' 03
OLK III, GEOTHERMAL, ORPOWER	48	Jan' 02	Uncertain
SONDU-MIRIU HYDRO, KenGen	60	July' 02	Dec' 07

Source: KPLC

Although the least cost power plan was updated in 1997, leading to the commissioning of various power plants by 2003, (see table 5.2), as widely predicted by the government and World Bank, this capacity bridging was preceded by a period of the worst power rationing hitherto between 1999 and 2001. This was directly attributable to capacity shortfalls due to delayed investment in new generating

²⁰ This refers to the time of day when electricity consumption is at its highest.

plants and fueled by a severe drought which almost dried up the country's hydro power dams," the source of more than 70 percent of the power generated in the country at the time²¹.

The drought, the worst recorded in the previous 50 years, contributed to massive power rationing which was instituted in September 1999, intensified in May 2000 and continued until 2001. In 2000, the rationing programme lasted 12 to 18 hours daily countrywide. At the time, there was a shortfall of about 35% MW, amounting to between 154 MW and 360 MW at various times of the day.

To bridge the economically and socially debilitating shortfalls during the drought, the World Bank approved a US\$72 million Kenya Emergency Power Supply Project in 2000. The funding supported contracts for supply of 105 MW of emergency power needed to bridge the prolonged shortfall in energy supply from conventional sources. The credit was also used to finance power purchases from the three independent emergency power producers contracted by the Government and to also finance the fuel costs of these emergency plants and facilitate supply of incremental fuel to KenGen's thermal power generation plants.

²¹ By 2004, however, hydro power accounted for only 54 percent of the country's power supply.

Meanwhile, funding for the delayed projects had commenced in 1998 under the Kenya Energy Sector Reform and Power Development Project IDA Credit 2966-ke. The funding, amounting to US\$125 million, was preceded by the government's commitment to serious reforms in the sector, heralded by the enactment of the Electric Power Act, 1997. The project's objectives were to assist the government in formulating and implementing major policy and institutional reforms aimed at creating an efficient and environmentally sustainable power sector and to support investment needed to meet power demand and increase operational efficiency. The project comprised the following six components: (i) sector restructuring and reform; (ii) other institutional support; (iii) efficiency improvements; (iv) power system expansion and upgrading; (v) geothermal resource development; and (vi) future project preparation.

The World Bank hoped that an improved policy and regulatory environment would lead to improved financial performance by the power sector and creation of an enabling environment for private investment and management of power plants. It also hoped that it would improve access to electricity and also promote the implementation of sound strategies for providing adequate and affordable energy to poor rural and urban households. Other donors - The Commonwealth Development Corporation (CDC) and the European Investment Bank (EIB) - also participated in the project through joint financing of a geothermal power station to be developed

by Kengen. The diesel plant was commissioned at Kipevu in Mombasa in 2000, and a geothermal station at Olkaria in 2003, while construction of Sondu Miriu is underway.

However, Sondu Miriu was caught up in another aid stoppage by the Japanese Bank for International Cooperation (JICA), its main financier. JICA, which was to provide 80 percent of the funding, severed financing for the KShs12 billion project in 2000 after politicians, environmentalists and non-governmental organisations claimed that it did not meet the required environmental standards. By the time the funding was severed, JICA had already spent KShs3.5 billion on phase one of the project. In November 2003, the Japanese government agreed to resume lending to the project following positive signals from the IMF that it would resume its lending to Kenya; a condition JICA had given for its own lending resumption.

Chapter Six

TOWARDS A SUSTAINABLE POWER SECTOR

6.1 Overview

The objective of this study was to investigate the role of the World Bank in power sector reforms in Kenya. This objective has been addressed.

The success or failure of World Bank recommended reform efforts in the sector is analysed within the main stated concerns raised prior to the commencement of the power sector restructuring programme in the early 1990s.

Among these concerns were: low prices of electricity in relation to the power sub-sector's financial requirement and to the economical supply of electricity; the complexity of the power sector organisation; the need for annual update of and adherence to the least cost power expansion plan; the need to incorporate environmental analysis in project feasibility studies; economic power pricing; restructuring of entities involved in electricity generation and supply to eliminate duplication of efforts and competition for limited resources.

6.2 Conclusions

The study hypothesised:

- i) That the World Bank has greatly influenced reforms in Kenya's power sector.
- 2) That World Bank conditionalities have been a catalyst for power sector reforms.
- 3) That Kenya's power sector is heavily dependent on donor aid.

These hypotheses have been confirmed. Some of the indicators that confirm the hypotheses include the fact that withdrawal of World Bank support to the sector led to delayed project implementation and subsequent power shortages throughout the decade of the 1990s. Another indicator is that the World Bank has been reluctant to finance the sector unless certain conditions it set were fulfilled, including the unbundling of the sector set-up that existed before 1997. The third hypothesis is confirmed by the fact that Kenya has never implemented any major power project without donor support. Indeed, when donors pulled out of the sector in the 1990s, not a single power project was implemented.

It is now over one decade since the push for serious reforms in Kenya's power sector started. This study shows that reforming the sector has been problematic with competition between political and economic interests causing project implementation delays. The study also leads to the following conclusions:

- Although donors emphasise the need to promote private sector involvement in the provision of commercial infrastructure; the liberalisation of power generation has failed to attract significant private sector interest due to perceived country risk. Subsequently, investors demand high security guarantees.
- KPLC's poor financial status still threatens the survival of the entire sector, for which it collects all tariff related payments. This situation also continues to impede access to domestic and international money markets for the necessary power system reinforcement and expansion.
- Environmental issues continue to pose challenges in the power sector as construction and operation of electricity projects have a direct impact on the environment either by the emission of pollutants or by changing the ecological systems.
- Since 2003 there has been improved dialogue between Kenya and lenders to the power sector including the World Bank. This culminated in the commitment of US\$208 million under the Energy Sector Recovery Project to the sector, following the government's commitment to implement the inherent conditionalities that will lead to further reforms in the power sector.

6.3 Recommendations

- The successful implementation of a new legal framework should be hastened to address identified shortcomings. Already, the Energy Bill has taken cognisance of many of these issues, while the National Energy Policy (2004) has addressed policy issues. However, close supervision of the energy sector entities is necessary to ensure compliance and implementation of relevant laws and policies.
- There is a need to address issues of concern to investors, (e.g. the perception of high country risk), but prudently and not at any cost, as the country's social and economic interests are paramount. Further, an appropriate power market structure capable of attracting both domestic and foreign investments at competitive costs is desirable.
- The government should convene a stakeholders' meeting to resolve issues arising from Kengen's management of the power stations; which still belong to these authorities.
- Environmental, health and safety standards require that mitigating measures be put in place to minimise the adverse impact of power projects. Comprehensive environmental impact assessments should be conducted for all projects prior to their

implementation while any new power sector legislation should enforce compliance of environmental standards.

- A new policy strategy is necessary to redress challenges of access to electricity, while also taking into consideration the economic issues of pricing. Strategies to reduce tariffs would include cost effective operation and maintenance of power sector companies; development of projects based on least cost criteria; prudent corporate governance; review of indirect taxes levied on power generation, transmission, distribution and supply equipment, plant and machinery, spare parts and related accessories; and, implementation of generation and transmission projects on schedule to avoid undue demand for tariff increases to finance the projects.
- Continuous positive dialogue between the government and sector donors, especially the World Bank, in order to avoid a situation similar to the one in the 1990s where there were shortages of power. Resumption of lending to the sector in the second half of the decade led to crowding of power generation and transmission projects and, subsequently, higher consumer tariffs.²² To combat such an occurrence, all efforts should be made to ensure that committed electricity projects are completed on schedule. Further,

²² The cost of loans taken to develop power projects is inbuilt into the electricity retail tariff.

the government should not allow any ongoing positive dialogue to be marred by issues that could lead to further delays in planned projects implementation.

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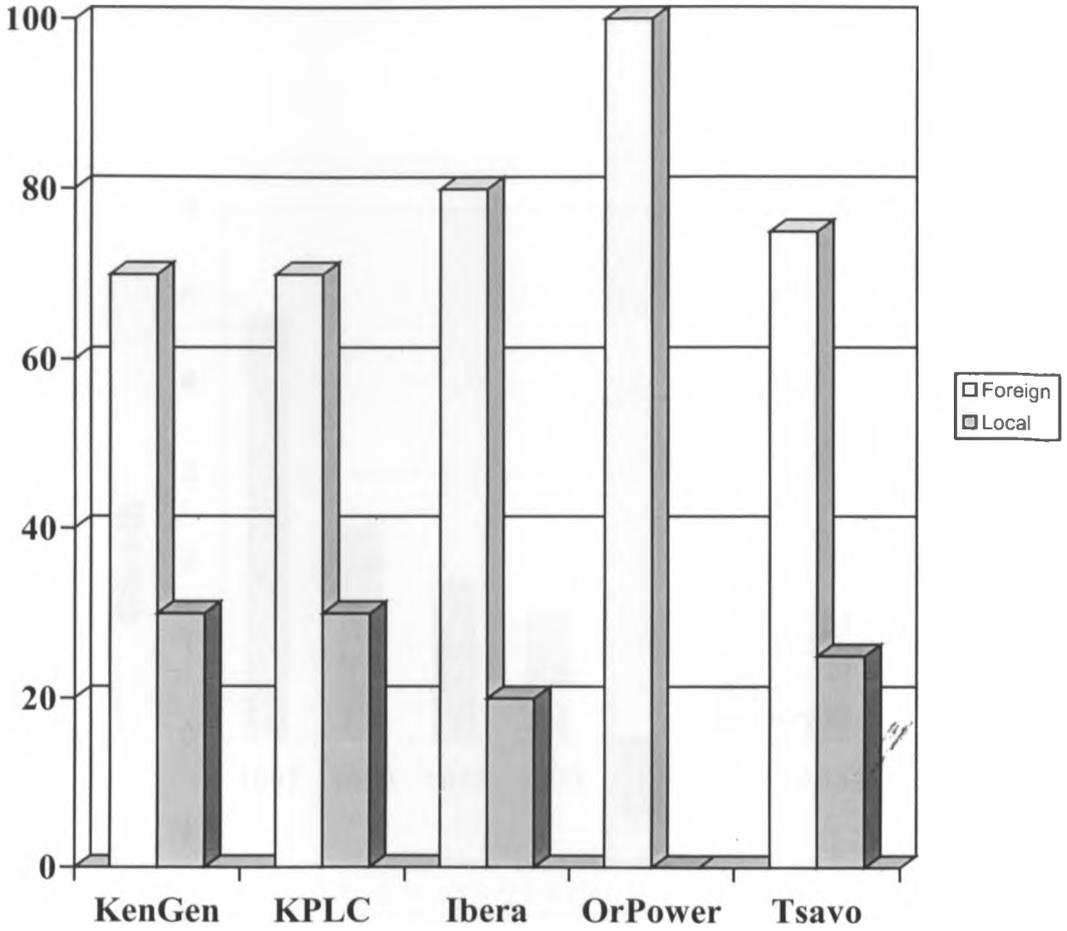
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ANNEX 1

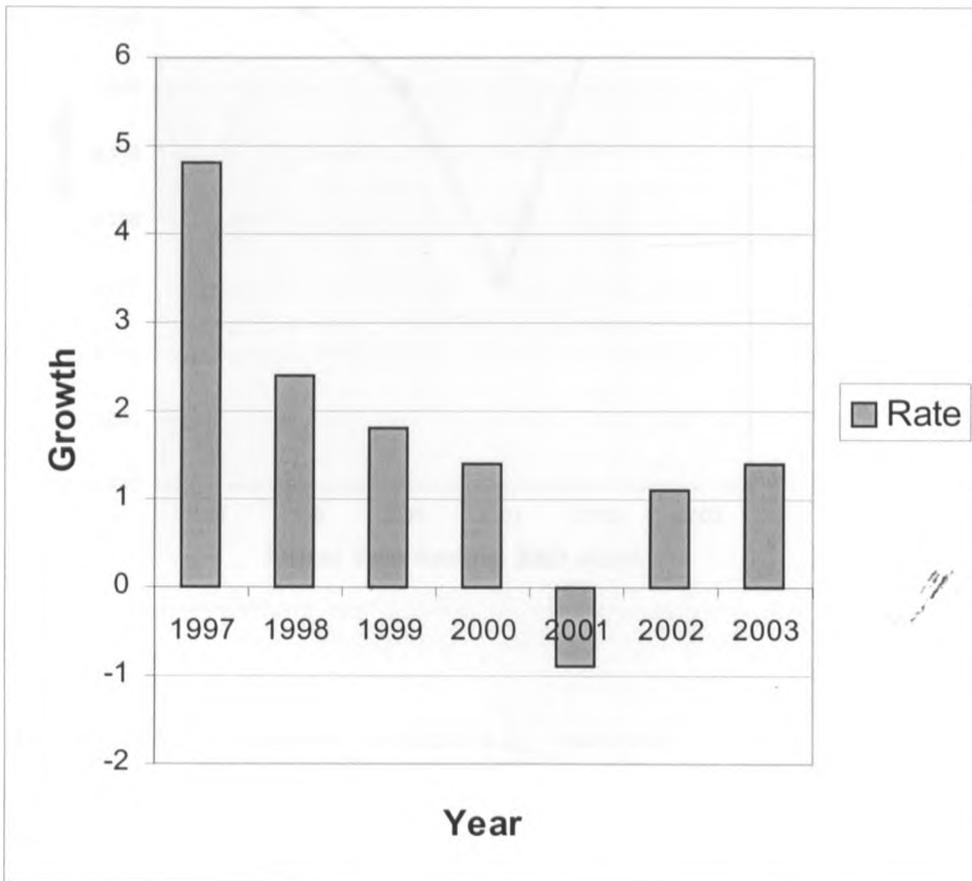
Foreign Financing for various Power Companies operating in Kenya



Source: Njenga, Elizabeth: Gaps in Kenya Power Sector Financing

ANNEX 2

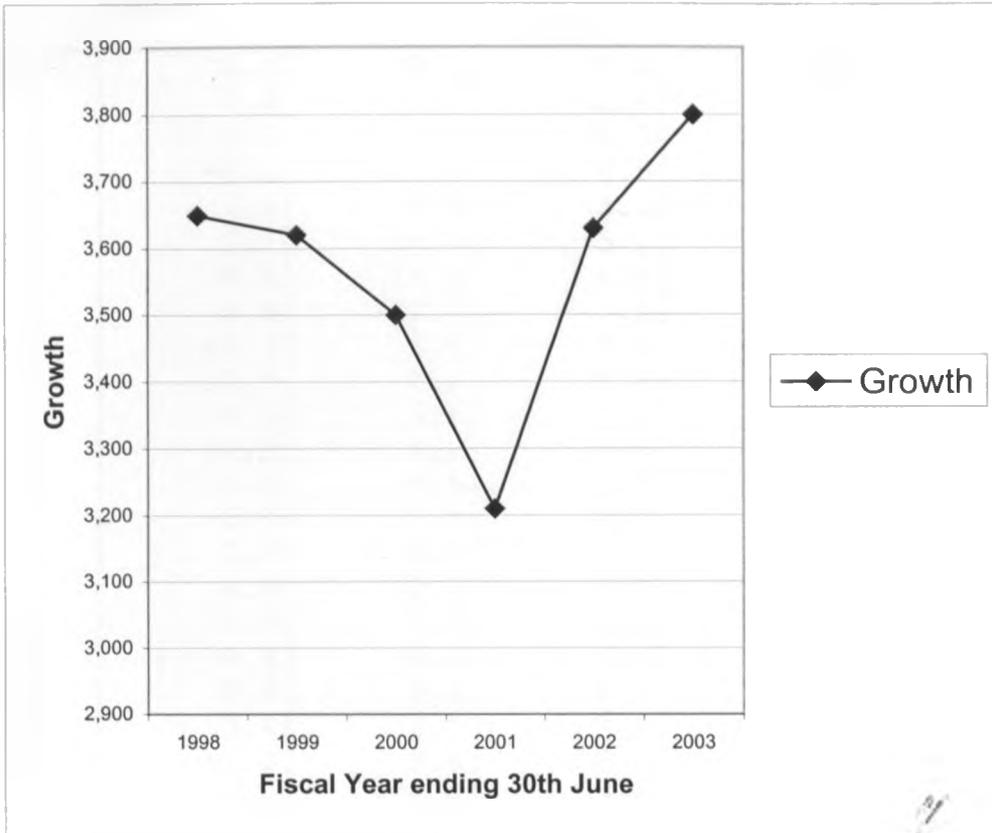
GDP growth rates 1997 - 2003



Source: Kenya, economic plans, various

ANNEX 3

Historical electricity sales 1998 - 2003



Source: KPLC annual accounts, various

ANNEX 4

Kenya: growth of real GDP, 1964-92

Year	Agric.	Manufac.	Govt Service	Others	Total GDP
1964-71	4.2	8.2	9.8	6.9	6.5
1972	7.6	7.3	12.8	3.6	6.8
1973	4.4	14.4	6.3	1.0	4.1
1974	-0.2	5.9	8.5	4.0	3.1
1975	4.6	4.0	5.1	-0.01	3.1
1976	3.7	14.0	5.1	2.0	4.2
1977	9.5	16.0	6.4	6.1	8.2
1978	8.9	12.5	7.1	8.4	7.9
1979	-0.3	7.6	5.6	7.7	5.0
1980	0.9	5.2	5.3	5.2	3.9
1981	6.1	3.6	3.8	6.9	6.0
1982	11.2	2.2	4.2	1.4	4.8
1983	1.6	4.5	2.9	1.5	2.3
1984	-3.9	4.3	4.2	2.7	0.8
1985	3.7	4.5	6.3	1.5	4.8
1986	4.9	5.8	5.7	5.4	5.5
1987	3.8	5.7	4.8	6.3	4.9
1988	4.4	6.0	5.8	5.2	5.1
1989	3.9	5.9	5.5	5.3	5.0
1990	3.4	5.2	4.4	4.6	4.3
1991	-1.1	3.8	3.6	3.4	2.3
1992	-4.2	1.2	2.4	6.0	0.4

Source: Kenya, Development Plan, 1994

ANNEX 5

THE KENYA POWER AND LIGHTING COMPANY LIMITED

PROFIT AND LOSS ACCOUNTS YEARS 1997 TO 2004

(Figures in Kshs. Million)

Year ending	Y/E 30.6.1997	Y/E 30.6.1998	Y/E 30.6.1999	Y/E 30.6.2000	Y/E 30.6.2001	Y/E 30.6.2002	Y/E 30.6.2003	Y/E 30.6.2004
UNITS SOLD (GWh)	3,406	3,498	3,564	3,365	3,091	3,498	3,654	3,940
REVENUE (in Kshs. Million)								
Electricity sales	14,750	15,292	15,513	16,670	16,109	18,699	19,185	20,303
Fuel Cost recoveries	2,143	2,781	2,910	6,894	12,080	6,108	3,945	3,020
TOTAL	16,893	18,073	18,423	23,564	28,189	24,808	23,131	23,323
Power Purchase cost								
- Non-Fuel	3,759	3,170	3,745	9,415	7,291	7,983	8,944	7,799
- Fuel	2,083	1,794	1,376	5,211	6,545	2,244	1,206	1,232
IPPs' - Non Fuel	-	1,374	1,772	1,751	2,852	4,850	4,602	4,395
- Fuel	-	1,613	1,832	2,366	4,155	4,583	3,064	1,920
UEB Purchases	-66	585	593	810	1,087	882	967	751
Other KPLC Generation Costs	338	482	222	368	-	-	-	-
Development Surcharge KPC	1,229	-	-	-	-	-	-	-
EPP's - Non Fuel	-	-	-	-	2,222	-	-	-
- Fuel	-	-	-	-	3,073	247	-	-
Total Gen. -Non-Fuel	5,260	5,610	6,332	12,344	13,451	13,715	14,513	12,944
- Fuel	2,083	3,407	3,208	7,577	13,769	7,074	4,270	3,153
TOTAL Generation Costs	7,343	9,017	9,540	19,921	27,220	20,789	18,783	16,097
TRADING MARGIN	9,550	9,056	8,882	3,644	968	4,019	4,348	7,226
Operating Costs								
Salaries and Wages	2,922	4,102	3,934	4,222	3,980	3,888	3,391	3,365
Medical expenses	158	304	279	308	302	234	218	262
Staff Welfare	138	230	261	308	252	188	101	125
Depreciation	407	579	748	926	1,139	-	-	-
						1,101	1,570	1,518
Other Consumable Goods	703	666	715	627	577	530	418	379
Insurance	230	407	198	193	116	103	233	205
Transport and travelling	108	299	293	536	477	259	284	293
Bad debts	2,056	-260	81	275	319	83	315	-
Repairs and maintenance	258	198	340	348	324	303	238	230
Consultancy	418	444	405	301	112	8	2	68
Training	87	91	151	55	15	22	14	27
Office expenses (telephone, rents etc)	232	337	366	404	516	447	438	438
Development & Commercial Services	33	45	58	50	12	8	6	7
Advertising & Public relations	26	65	121	95	54	53	40	56
Legal expenses	10	36	52	19	22	25	17	66
Taxes	24	5	11	24	21	22	55	26
Bank charges	87	87	115	127	146	178	149	154
Stock adjustment	696	68	-	-	72	369	338	-
Pension/leave provisions	-	-	-	-	-	-	835	219
Others	-	-	-	-	-	82	454	333
TOTAL KPLC OPERATING COSTS	8,663	7,705	8,128	8,819	8,455	7,902	9,116	7,773
Operating Profit	887	1,351	754	-5,175	-7,487	-3,883	-4,765	-547
Other income (CWS)	337	242	912	808	843	781	1,041	540
Profit on disposal of asset	25	14	236	221	170	457	31	77
EPPs' recoverable costs	-	-	-	-	1,312	-	-	-
RES credit	-	-	-	695	1,615	1,110	970	795
Profit before interest & tax	1,249	1,607	1,902	-3,452	-3,546	-1,537	-2,727	865
Interest on overdraft	29	105	203	287	304	173	176	5
Interest on Loans	71	52	95	438	339	160	1,291	9
Exchange losses/(gains)	-127	35	-6	2	-57	23	15	26
Interest receivable	-885	-591	-112	-23	-26	-22	-96	-49
Finance costs	(911)	(399)	180	704	560	334	1386	(9)
Exceptional item	0	0	0	(1,582)	-	(978)	0	0
Profit (loss) before tax	2,160	2,005	1,722	-2,574	-4,106	-2,849	-4,112	873
Taxation credit (charge)	-606	-717	-441	966	1,229	970	1,215	416
Profit/loss after tax	1,554	1,288	1,281	-1,608	-2,877	-1,880	-2,897	457

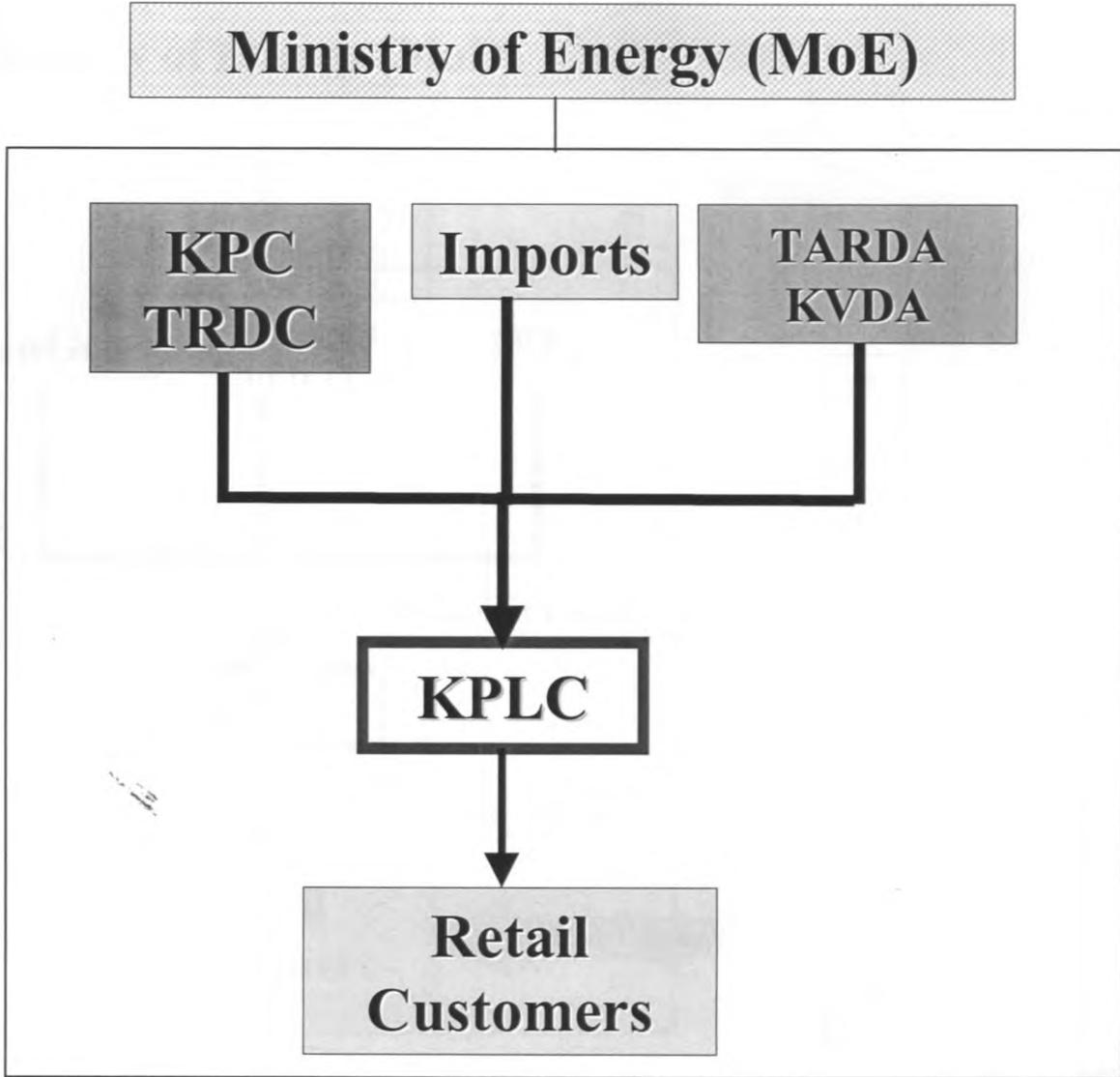
Source: KPLC annual accounts, various

STRUCTURE BEFORE REFORMS

Generation

Transmission

Distribution



STRUCTURE AFTER REFORMS

