

# Regulatory and Competition-Related Reforms in Kenya's Power and Petroleum Sectors

## ICBE POLICY BRIEF

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### EXECUTIVE SUMMARY

Kenya embarked on a process to reform its energy sector in earnest after mid-1990. The enactment of the Electric Power Act, 1997 and later the Energy Act, 2006 set the stage for reform in the two energy sub-sectors. The two legislations laid the foundation for separating the roles of generation of electricity from transmission and distribution of electricity sector. The laws also paved the way for the liberalisation of the procurement, distribution and pricing of petroleum products in the country.

The reforms essentially entailed breaking up state corporations in the power and petroleum sub-sectors that were then deemed as monopolies and unable to deliver quality at reasonable market prices.

Further, an industry regulator – the Energy Regulatory Commission – was set up to police the companies that were set up under the new laws. These changes were expected to improve service quality in a cost effective

manner, provide an innovative environment and stimulate efficient investment in the energy infrastructure.

However, the attainment of the above expectations faces several challenges. For instance, the cost of power has remained high despite regulation. Due to the capital-intensive nature of the industry, few firms have entered the liberalised power generation industry in Kenya, with the main producer being a quasi government firm (KenGen). Kenya Power remains the sole distributor of electricity in the country.

Similarly, the reforms in the petroleum sub-sector have not yielded desired results despite measures, which allowed greater participation of the private sector, particularly in the importation, distribution and supply services.

Despite the reform measures, the energy sector in Kenya continues to face huge challenges. These include weaknesses in institutional and legal frameworks, limited and uncoordinated enforcements, inadequate technical capacities and external economic conditions. Hence, strengthening the regulatory system in the energy

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sector remains important to ensure sustainability, competitiveness and security of energy supply in Kenya.

## BACKGROUND

Kenya, like other developing economies, requires substantial supply of affordable energy in order to sustain high levels of economic growth and development. Self-sufficiency and sustainability in energy supply guarantees competitiveness of domestic industries and therefore is central to the attainment of the objectives of the Kenya vision 2030 – a development blueprint that aims to transform Kenya into a middle income economy by 2030.

This however requires an effective and credible regulatory environment which is transparent and accountable. This would improve the doing business environment and attract adequate private sector investment. The reforms in the energy sector

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were generally aimed at introducing competition in commercial segments of electricity and petroleum sub-sectors in order to attract private sector investments. There were high expectations that the newly introduced regulatory mechanisms would provide more powerful incentives for regulated firms to reduce costs and improve service quality, stimulate introduction of new products and services and trigger competitive pricing and access to regulated infrastructure services.

Structural and regulatory reforms in the energy sector began in earnest after the mid-1990s following the enactment of the Electric Power Act, 1997 and later the Energy Act 2006. These legislations laid the foundation for the separation of generation from transmission and distribution in the electricity sector. It also liberalised procurement, distribution and pricing of petroleum products in the country.

The Electric Power Act of 1997 provided for unbundling of the power sub-sector from a vertically integrated structure to a horizontal integration framework. In the new dispensation, the Kenya Electricity Generating Company (KenGen) assumed the responsibility of power generation while the Kenya Power and Lighting Company (KPLC) took the responsibility for power transmission and distribution. This has however changed recently with some of the electricity transmission roles being handed over to a recently created Kenya Electricity Company (Ketraco), but Kenya Power still manages transmission lines put up before the formation of Ketraco.

The Act also established the Electricity Regulatory Board (ERB) to set, review, adjust consumer tariffs and promote competition among other responsibilities.

Reforms in the petroleum sub-sector included liberalization of petroleum pricing and marketing, liberalisation of oil transportation modes and the tariffs, abolition of National Oil Corporation of Kenya 30 percent crude oil quota (which favoured the state run oil marketer), abolition of the white oil rule, introduction of a duty to protect the Kenya Petroleum Refineries Limited (KPRL) and partial liberalisation of supply.

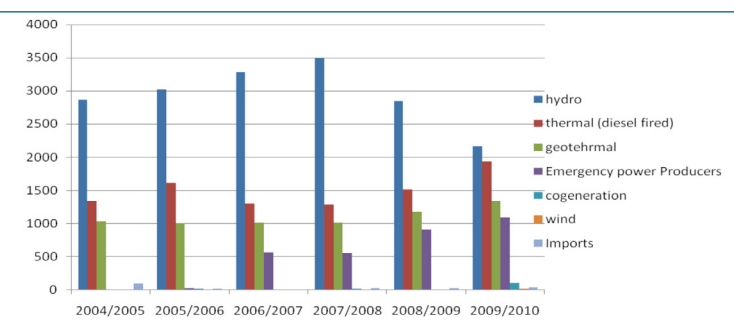
The climax of reforms in the energy sector was the enactment of the Energy Act of 2006, which consolidated all laws relating to energy and provided for the establishment of the Energy Regulatory Commission (ERC) as a single sector regulatory agency with responsibility for economic and technical regulation of electric power, renewable energy and petroleum sub-sectors. These reforms were preceded by the enactment of the Restrictive Trade Practices, Monopolies and Price Control (RTPMPC) Act of 1989, which aimed at promoting competition and reducing direct control of prices in the entire economy. Further, the Competition Act 2009<sup>1</sup> provides for the establishment of a Competition Authority as well as elaborate provisions for consumer protection.

However, while much progress has been made in market opening, there still exist persistent limitations in generation and supply capacities as well as incentives for private investments into the

sector. For instance, as at end of June 2008 the national electric power system had an installed capacity of 1,310 MW with a maximum output of 1,267 MW under normal operating conditions (KPLC Annual Report 2009). Total system peak demand during the period was 1,044 MW implying a near zero reserve margin without the Emergency Power Producers (EPPs).

Vulnerability is further increased by over-reliance on hydro power which accounts for about 54.6 percent amidst shrinking water towers. On the other hand, the thermal and geothermal generations whose production costs are relatively uncompetitive accounts for 45.4 percent, while generation of wind power and other alternative energy sources remain rather minimal.

**Figure 1: Electricity Generation by Source in Kenya**



Source: KPLC Annual Report, 2010

Private investment in power generation has remained inadequate despite government efforts to open up generation of power and private investments. For instance, the Kenya Electricity Generation Company (KenGen), which is largely government-owned, accounts for about 76.6 percent of effective production capacity, while Emergency Power Producers (EPPs) and Independent Power Producers (IPPs) account for only about 11.5 percent and 11.3 percent, respectively.

In addition, electric power tariffs have remained high. On average, the unit cost of electricity has been increasing over the years, from ksh. 5.92 per Kwh in 2003 to Ksh 8.13 per Kwh in 2008.

Likewise, the petroleum market portrays oligopolistic tendencies and oil marketing companies rarely pass

on cost reductions to consumers when international oil prices are on a downward spiral. For instance, when the load port price of urban crude oil dropped from a record high of USD 137.35 per barrel in July 2008 to USD 42.10 per barrel (69.9 percent drop) in December 2008, the pump prices of super petrol dropped from ksh. 110.00 per litre to ksh. 78.00 per litre (29.1 percent) over the same period. The rising oil prices led to the development of the Price Control (Essential Goods) Bill 2009 by Parliament to provide for mandatory control of the prices of essential commodities including paraffin, diesel and petrol.

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Consequently, this has constrained access to energy products hence, impacting negatively on economic development. For instance, per capita consumption of electricity in Kenya currently stands at about 121 kilowatt-hours (KWH), which is one of the lowest in the world. Further, only 15 percent of the population has access to power compared to an average of 32 percent in developing countries.

Under the circumstances, the regulatory design and institutional framework in the sector is deemed to play a central role in the pricing of energy products, enforcement of laws and regulations and eventual attainment of tangible benefits. Assessing the regulatory framework within the energy sector should inform on-going reforms in the sector that will make it possible for greater private sector participation in provision of energy-related services eventually leading to greater efficiency, competitiveness and enhancement of consumer welfare. The assessment of standard regulatory design focuses on three main aspects namely: a) Regulatory Governance, b) Regulatory Incentives and c) Institutional Endowments.

## KEY ISSUES AFFECTING THE ELECTRICITY AND PETROLEUM SUB-SECTORS

The major issues affecting the electricity and petroleum sub-sectors in Kenya can be addressed by fixing regulatory and competition-related challenges. These include:

### Capacity for implementation of competition-related regulations

There are capacity constraints in both the Monopolies and Prices Commission (MPC) and the Energy Regulatory Commission (ERC) thereby affecting enforcement, development and responsiveness of the regulatory system.

Although personnel at both institutions are highly qualified, the expert knowledge is locked up in a few key personnel. ERC attributed staff shortages to competition in professional staff recruitment from other existing public utilities and private consultancy firms that offer more attractive pay packages and opportunities.

In addition, MPC does not have specialised energy sector experts while ERC equally has no specialised competition-related experts. The technical capacities of the two regulatory institutions compares poorly with similar institutions elsewhere.

### Regulatory independence and enforcement

The Competition Act 2009 established a Competition Authority that would be independent. This was a fundamental improvement though with some weaknesses as well. For instance, the Act falls short of stipulating specific qualifications and experience for senior personnel managing the Authority.

In addition, current laws do not have explicit provisions for execution and enforcement of orders by the Competition Authority. For instance the Energy Act 2006 stipulates that ERC shall be independent in the execution of its mandate. However, Section 3 of the State Corporations Act makes provision for the control and regulation of state corporations and in this case under the general guidance of the Minister for Energy, thereby undermining the independence of the ERC in decision making.

Thus, the extent of ministerial involvement in decision-making and appointment of commissioners grossly undermine the independence of the energy sector regulator.

### Financing of regulatory institutions

The Monopolies and Prices Commission (MPC) fully relies on the Government to Finance its activities unlike other autonomous Competition Authorities in other markets. It has no powers to raise alternative funds, for example through borrowing or charging fees for the services it renders.

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On the contrary, the Energy Regulatory Commission (ERC) has a strong degree of fiscal independence. About 99 percent of its income is collected from electricity (52.7 percent) and petroleum (46.3 percent) levies while the remaining one percent is generated from interests and penalties in line with recommended best practices.

### Market structure and performance

The hydropower accounts for over 50 percent of the electricity consumed in the country while thermal and geothermal accounts for about 45 percent.

Much of the power consumed in Kenya is generated by KenGen, at about 75 percent that generates using hydro and geothermal plants and, to a small extent, thermal plants. In addition, there are Independent Power Producers (IPPs) and Emergency Power Producers (EPPs) that generate electricity using thermal power sources that are fossil fuel based. There are also small power plants that generate power from small hydro power plants that then sell to Kenya Power.

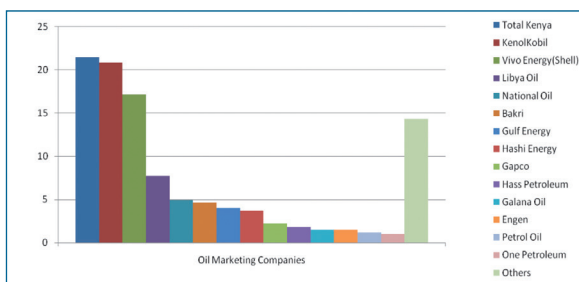
By and large, there are huge potentials for exploiting wind power generation by both KenGen and the private power producers. Electricity generated by the different power producers is distributed by Kenya Power.

On the other hand, the petroleum market in Kenya is largely oligopolistic despite the incorporation of numerous small independent oil companies. Prior to liberalisation, multinational firms accounted for over

90 percent of all petroleum products imported into the country and virtually all retail businesses.

As recently as 2005, activities by independent petroleum dealers were still limited to the extent that four of the major petroleum market players (Total, Shell BP, Caltex, Mobil & Kenol/Kobil) controlled about 85.3 percent of the market (GoK, 2006). There have since been mergers and acquisitions and the market shares during the year 2010 were as shown in Figure 2.

**Figure 2: Market Share by petroleum sales, 2012**



Source: Petroleum Institute of East Africa (PIEA), 2012

### Weak provisions for sanctions, fines and penalties

There are feelings that existing sanctions by regulatory bodies are rather soft and do not deter offenders or would-be offenders for engaging in anti-competitive practices. For instance, the fines contained in section 21(2) and (3) are in the range of USD 1,500 and USD 3,000. The policy objective is to impose penalties on infringing undertakings which reflect the seriousness of infringement and ensure that the threat of penalties will deter undertakings from engaging in anti-competitive practices.

### Uncoordinated enforcement of competition-related regulations

Both the Energy Act 2006 and the Monopolies and Price Control Act, Cap 504 empower the ERC and MPC to implement and promote competition within the electricity. While the latter has the overall responsibility for all sectors, the ERC mandate is specific to the energy sector.

However, there is no clear demarcation of responsibilities or modalities for coordination of their activities in both the energy Act of 2006 and the current competition Act of 1989.

Similarly, Article 3 of the Competition Act, 2009 does not clearly spell out binding mechanisms for relating with other regulatory bodies beyond the identification and establishment of procedures for management of areas of concurrent jurisdictions. Although price controls were not repealed by Parliament, the MPC has never invoked them. In this way, the Commission's activities and ability to protect consumers against monopoly abuses, and anti-competitive practices are rather weak.

In addition to the regulatory bodies, the Ministry of Trade also has the mandate to oversee consumer protection. Lack of clear guidelines regarding the coordination of these activities between the Commission/proposed Authority and Ministry of Finance on one hand and the Ministry of Trade on the other hand shall remain a challenge and will lead to duplication of efforts.

### Transparency, advocacy and awareness creation

Awareness of competition-related regulation is central to enhancing competition in any industry. The MPC has in the recent past been actively involved with the members of the public in decisions particularly in respect to the formulation of wholesale and retail prices. This is in tandem with the requirement of Section 110 (3) of the Act which requires the Commission to publish the proposed regulations for purposes of inviting proposals from the public before submitting such recommendations to the Minister. However, previous studies indicate that ERC is not transparent enough, in terms of information, documents and procedures for decision-making open to the public.

### Infrastructure development

Effective regulation requires appropriate physical infrastructure and telecommunication networks for both regulators and the regulated firms in order to facilitate information exchange and monitoring. While ERC may have good communication infrastructure, the quality of physical infrastructures to facilitate its monitoring activities especially in rural areas is wanting.

### Transmission network, governance and pricing structures

The separation of transmission from distribution in Kenya is a welcome move and should facilitate balancing demand and supply of generation services. However, the clarity on the functions of

the operator, what information it needs to perform its functions well, network operator ownership structure and how it should be regulated are major challenges. The other challenge is getting transmission pricing right in order to facilitate decentralisation of competitive generation supply decisions and management of network.

#### **Enforcement of standards and quality**

The regulation of health and environmental standards in the petroleum sub-sector is shared among various statutory bodies including the Kenya Bureau of Standards, the Ministries of Health and the National Management Environmental Authority. The challenge is for these bodies to effectively monitor quality aspects, yet ERC itself also does not have petroleum technical expertise to monitor industry players. Thus, adulterations, quantity measurements and related activities remain a challenge in the domestic industry.

#### **External factors**

The performance of the domestic petroleum industry heavily relies on global economic phenomena and trends in international oil markets. These include the international oil prices, security-related issues and other economic performance indicators. The strong links with external factors with multinationals playing leading roles in exportation, distribution and supply makes it even more difficult to effectively regulate the sector. The cartel like behaviour of the multinational firms in the petroleum sector affects supply and retail prices.

## **CONCLUSION**

There is need to strengthen the regulatory system in the energy sector in order to stimulate private investments and improve competition and service delivery to consumers.

Strengthening the competition and regulatory-based framework will support the intentions of the on-going energy sector reforms. It will also ensure that the domestic market for energy contributes sustainability, competitiveness and security of supply of energy products to meet the country's increasing energy demand.

In addition, priority should be given to monitoring

and evaluation as well as accurate collection of data on the activities and capability of all services providers in regulated sectors as a basis for designing regulatory and liberalisation policies.

This policy brief suggests possible mechanisms for promoting synergy and cooperation between the Competition Commission and sector-specific regulators with a view fostering efficiency and competitiveness in delivery of services.

## **POLICY RECOMMENDATIONS**

#### **a) Combining technical and economic regulation model**

Such a model gives sector regulators competition law enforcement functions to be performed in coordination with the competition authority. In addition, it would allow maximising on competition enforcement actions and conclusion of binding agreements between the Competition Authority and the Energy Regulatory Commission as well as other sector-specific regulators for co-ordination and harmonization of competition matters.

#### **b) Effective coordination of implementation of competition-related regulations**

Effective implementation of competition-related regulations in the electricity and petroleum sub-sectors requires close coordination of enforcement of infringements related to pricing, fair trade practices and consumer protection by various agencies. Thus, the new competition act should provide clarity about the roles of the Ministries of Finance, Energy and Trade and other Government Agencies and regulatory bodies on the co-ordination, harmonisation and the exercise of jurisdiction over competition matters within the energy sector or industry and to ensure the consistent application of the principles of competition and consumer protection.

#### **c) Ensuring administrative and financial regulatory independence**

It is necessary that the regulatory agency should have authority to make final decisions within its statutory domain without having to obtain approval from any other agency of government. Regulatory independence facilitates prudent decision-making, enhances integrity and bestows confidence on

regulatory management and decisions by regulated firms, potential investors and consumers at large. Autonomy of regulatory institutions led to sustainability and success of regulatory models such as in Latin America electricity reform movements, as well those in the Asian utility industries. The latter's success was evident in their relative ability to respond effectively to the Asian financial crisis. In addition, the Monopolies and Price Commission should diversify its revenue base and minimize or cease reliance on direct budgetary support from the Government.

Effective regulation requires adequate technical staff in the regulatory bodies. This is necessary to attend to implementation of the laws as well as other requirements negotiating, writing, monitoring and enforcing the contracts. Recruitment and retention of specialised staff is necessary for a regulator to operate effectively.

#### **d) Widening the scope for competitive power generation market**

There is need to deepen horizontal divestiture of generating facilities as a way of creating additional independent competitive suppliers in order to stimulate competitive price incentives under the existing regulatory framework. Enhanced competition will also address the 'perception' that IPPs are basically high cost producers of electric power.

#### **e) Effective governance of transmission network and pricing structures**

Following the establishment of a publicly owned transmission company (the Kenya Electricity Transmission Company - Ketraco), appropriate governance and pricing structures should be established, particularly if the incumbent intends to retain ownership of existing transmission infrastructure. This is due to the complex nature involved in controlling and coordinating generation schedules, balancing demand and supply generation services flowing over the network as well as coordinating with neighbouring control areas. In addition, it is important to get the right transmission pricing to facilitate efficient decentralization of competitive generation supply decisions over time.

#### **f) Strengthening monitoring and data reporting**

Accurate information on the activities and capabilities of both incumbent and new operators is of great value and will facilitate the design of regulatory and liberalization policies. It will also enable identifying the services on which the incumbent can be afforded substantial flexibility in terms of pricing. Information about installed capacities of competitors is also crucial to assessment of the current and likely future intensity of market competition. Therefore, there is need to establish or formulate appropriate data reporting requirements to ensure timely and accurate availability of data.

#### **g) Enhancing transparency and awareness amongst stakeholders**

A wider knowledge amongst the public would make it easier for regulators to detect and take appropriate actions against anti-competitive trade practices thereby protect consumers and enhance efficiency in markets. Specific awareness programmes should be developed in tandem with the provisions of the proposed new competition laws.

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