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## **Global Forum on Competition**

### **ROUNDTABLE ON BRINGING COMPETITION INTO REGULATED SECTORS**

#### **Contribution from Kenya**

-- Session I --

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## **BRINGING COMPETITION INTO REGULATED SECTORS: FOCUS ON KENYA**

### **1. Introduction**

1. In Kenya, the drive to deregulate and liberalise the market has led to attempts at more precise economic definitions of what constitutes a natural monopoly: taking cost as exogenous. This has led to the opening of these markets, which previously were thought to be natural monopolies, to competition. Major ways of introducing competition into regulated utilities with different competitive potential, at each stage, was to separate the monopolistic and competitive components as different units. This approach has overcome, but not very effectively, the problem of a monopolist extending his monopoly power in the whole industry. However, this approach hinders realisation of economies of scope and that of density (in telephony industry) that might be available for a firm undertaking several connected activities

2. Kenya's process of introducing competition in these sectors is seemingly premised on several analyses<sup>1</sup> done on the competitive potential, world-wide, in Electricity, Railway, Telecommunications, Water and Gas. These analyses have concluded that: (a) In electricity, generation and supply is competitive but high-voltage transmission and regional distribution cannot accommodate competition; (b) In telecommunication, potential for intense competition exist in long-distance, international networks and services (VANS) but moderate in local network and (c) for competition to thrive, proper access to essential related networks need to be availed.

### **2. Electricity industry**

3. Just like any electricity supply industry (ESI), Kenya's industry, is a vertically related market with the following stages: (1) generation; (2) transmission; (3) distribution and (4) supply.

#### **2.1 Energy inputs**

4. A greater percentage of power consumed in the country is hydro generated. Although it avoids pollution, it imposes cost in terms of visual amenity and ecological damage. Geothermal stations, located in the Great Rift Valley, do also supply to the national grid. The overdependence in hydro power means that Kenya's electricity is highly susceptible to weather conditions<sup>2</sup>. To lessen the risk, plans have been underway to explore more geothermal sources but this has been hampered by the enormous costs of these investments. Secondly, plans are underway to connect the country's national grid with the one from South Africa (under ESKOM).

#### **2.2 Generation**

5. In all ESIs, theoretically, vertical separation taunts for competition between generators. This is because it allows entry, therefore putting pressure for downward trend in prices, and contract terms. This means that it enhances contestability in the market. Generators compete to supply the transmission grid under long-term contracts. This offers insurance for both generators and the grid against risk. However, they have some risk in the sense that the contract holders are not the most efficient. Contracts are also complex due to their nature – specification and enforcement.

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1. Baldwin and Cave (1999); Armstrong et al (1994).

2. Kenya suffered a major power rationing programme in 2000 due to drought.

6. Kenya separated its generation from transmission in 2000. As indicated earlier, this was after the drought which affected the predominant hydro-power supply. Prior to this, Kenya Power and Lighting Company (KPLC) generated, transmitted, distributed and supplied electricity. This was hydro and ge inputted electricity. To lessen the effects of the power rationing, several (4 in number) Independent Power Producers (IPPS) were commissioned to feed the national grid. All these IPPS were generating using diesel as an input as opposed to water. Further restructuring of the industry saw KPLC being vertically separated. The role of generation was left to Kenya Generating Company (KENGEN) and the IPPs while KPLC remained with all the other roles (transmission, distribution and retailing). It is worthy noting the KPLC and KENGEN are public companies.

7. The generating companies (gencos) supply to KPLC under long-term contracts. Although these may minimise the risks associated with spot/pool markets (i.e. spot price volatility and its complexity) the process of negotiating for these contracts has never faded away from the lime-light. The writer's position is that these contracts were negotiated at a time when the country was facing a crisis and therefore, the issue of competitive contract prices was not exhausted. Furthermore, the IPPS were aware of this and therefore they exercised their dominance; wouldn't you? This means that the procurement process was not competitive and that therefore, this inefficiency has continued to be passed to the consumer to date. Nevertheless, these contracts are about to end and there are plans to review the contract prices downwards<sup>3</sup>.

8. Failure to have gencos reviewing these contracts, the best for the Kenya's ESI is vertical integration. This is because the system is small and secondly, social gains can be accrued since it eliminates double marginalisation (gencos and KPLC). Interestingly, the Sector's regulator (Electricity Regulatory Board: ERB) accrues its budget directly from levies collected by KPLC. This arrangement places the regulator under the risk of capture.

### **2.3 Transmission**

9. As stated earlier, KPLC was left with the role of transmitting, distributing and supplying. The aim of this separation was to increase transparency in charges and hindering risk of investment in capacity being passed on to consumers as it is the case in vertically integrated system. Therefore, this arrangement was meant to encourage prudent investment: by allowing all generators access to the national grid.

10. In some Developed countries, competition has also been introduced in the supply function of ESIs. This means creating retail markets. This leads to inefficiency being reduced in generation because customers are free to choose the most efficient supplier. Therefore, it is difficult for distributors to pass on any uncompetitive contracts. However, the Kenyan case is a story of separating gencos and KPLC only. Gencos are not supplying KPLC competitively and therefore, it is very difficult to transfer any benefits to consumers.

11. To conclude on Kenya's ESI, vertical separation should have been based on potential market competition, which in turn should have depended on the size of the market, the nature of scale economies (taking into account our energy source: hydro) and the institutional design (KPLC and gencos). Lastly, vertical separation of the industry would have been deemed to be successful if it enables ESI adapt to new circumstances (changes in technology, fuel prices and so on) with minimal costs, prices or profits. Since Kenya's ESI was restructured there is no evidence of net cost savings or efficiency gains hence no improvement in the consumers' welfare. However, further restructuring in the industry is going on: the Government has already recruited experts to re-organise KPLC.

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3. Ministry of Energy, G.O.K (2004).

### 3. Telecommunications

12. The question of whether a telephone utility is a natural monopoly has been studied empirically since the 1970's but it has never been resolved<sup>4</sup>. Nevertheless, pressure for reforms in telecoms come from the extraordinary rapid technical progress in equipment (digital switches, cellular phones, satellites, and fibre-optic sales), software (for programming switches, compressing and routing data, encryption, and billings and billings and so on) and the other services that these technologies ease. Donor conditionalities in Kenya have also been a driving force in carrying out reforms in this sector. However, reforms and competition cannot be introduced in the whole telephony industry. The most effective place to introduce competition is for the services provided over the network. However, network and service providers are interdependent and efficient Service delivery requires an efficient network. Also, investments in one may reduce the cost of the other<sup>5</sup>.

#### 3.1 *Development of competition*

13. There is no clear boundary for the natural monopoly in telecoms. It must be drawn, pragmatically, at the place where the efficiency gains of increased competition outweigh the benefits of integration. This varies with the size, sophistication, range of services (broadband vs. voice), and the rate of expansion of the system, as well as on regulatory constraints on the range of services that may be provided, degree of cross-subsidisation required and so on. Therefore, network operation and construction may be naturally monopolistic to a degree. That is, it would be waste of resources if different companies lay telephone wires in the same exchange area.

14. The supply or manufacture of apparatus or the supply of services over a network cannot be said to have this characteristic. Prior to liberalisation, Kenya Postal and Telecommunications Corporation (KP&TC) was the only provider of telecommunications, postal services and courier services in Kenya. Mobile telephone services were a preserve of the political elite: there is a story that mobile lines used to be issued in State House (the President's official residence)! And internet connectivity was never there. KP&TC used to manufacture its own and consumers apparatus in their plant in Gilgil, Kenya.

15. After liberalisation, KP&TC was unbundled into Telkom Kenya Limited (TKL) to deal with telecommunications, Postal Corporation of Kenya (PCK) to deal with mail services and the regulator was created: Communications Commission of Kenya (CCK). Gilgil manufacturing plant was also de-linked. All these firms were opened to competition. Nevertheless, TKL was given a five year monopoly in the provision of land lines in Nairobi and for provision of internet services (the so-called Jambonet). This arrangement was meant to accord TKL a grace period for re-organising itself before it is opened to competition. This was also due to the Universal service Obligation (USO). The period ended June, 2004 and two market players have already been licensed to provide Internet connectivity.

16. For provision of mobile telephony, there are two active service providers with a subscription of around three million compared to less than half a million land line operators. Another third mobile provider has been licensed but yet to operationalise. This has been the fastest growing industry in Kenya and a major source of government revenue currently. However, there has been a main regulatory problem in this service: the problem of setting efficient and agreeable access price (interconnectivity or otherwise termination charges) so that service providers can compete with undistorted cost-related prices. The problem of switching costs is also very prevalent and therefore competition does not put downward pressure on prices. To avoid this problem, CCK is already addressing the problem of switching costs by introducing number portability.

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4. Shin and Ying (1992).

5. Newberry (1999).

17. Generally, privatisation and competition in telecommunication has resulted to enormous growth of entry and expansion of capacity. There is enormous competition in long-distance calls through internet. This has resulted to big rates reductions in the last three years. The above benefits have been coupled with more innovation and more development in new services which much international standards.

18. When we juxtaposition pre and post- liberalisation eras in Kenya, we can reasonably conclude that competition is crucial for providing telecoms benefits in terms of productivity growth, real cost and rates reductions. However, there is a problem of sustaining effective competition due to entry barriers caused by huge investment requirements, economies of scale, scope and density (critical mass). The country is also faced with a dilemma of trying to create competition, particularly in fixed lines, while at the same time expecting TKL to carry the USO. Fortunately, USO is effectively being provided by mobile via 'pay as you go' service. As stated, already there are more mobile phones than fixed lines in Kenya. Another concern, which also is expected to generate political heat, is the structure of TKL post liberalisation: do we try and sustain a national, locally owned TKL or allow ownership (controlling or significant shares) by major international partner.

19. Lastly, the writer opines that regulation in this sector has proved less necessary than for electricity, although CCK is more vibrant than ERB. This is for the reason that (a) there is rapid growth in demand from consumers with willingness and ability to pay; (b) there are lesser 'sunk' costs and switching options are available (for mobile telephony); and (c) there is much less strong USO that is, absence of concept of "right of all households" to have a telephone connection. For example, households can access phone via call box.

#### **4. Railways**

20. Although there is not much to write about, it is important to indicate that the process of concessioning Kenya Railways (KR) has already started. KR is more of a freight dominated rail system rather than passenger. The KR system is relatively small and it is a small component of transport services and compete (with difficulty) with road. Although the details of Concessioning are not yet finalised, there are indications that the process will involve (a) unbundling of tracks business, their maintenance and locomotives; (b) Build Own Operate and Transfer (BOOT) arrangement for the railway line to Southern Sudan and (c) for the areas where lines exist, its expected that they will be concessioned on Operate and Transfer (after 25 years) arrangement.