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Monopoly in Electricity Generation and Electricity Supply is a threat to Investment Expansions in Kenya

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Abstract: ***The effects of electricity shortage, electricity generation and electricity supply monopoly on investment in Kenya are presented in this article. Method of data collection was done through questionnaires within western province towns of Kakamega and Bungoma among the business, jua kali and household communities. The actual numbers of people interviewed were 931 with 510 from Kakamega and 421 from Bungoma. The results from both research sites indicate that by removing monopoly from electricity generation and electricity supply will possibly make Kenya become fully industrialized nation within a period of seven years after its removal. The results also indicate that without removal of monopoly in electricity generation and electricity supply, the vision 2030 will not be possible to achieve. The following are the key factors of consideration: High cost of electricity to the people of Kenya, Low coverage of electricity within the nation, Rural urban migrations, Eventual privatization of the industry, to introduce elements of free enterprise and competition, Low investment expansions in small towns and rural set up due to lack of electricity, The Electricity Regulatory Board (ERB) failure to advice correctly for the promotion of electricity widespread in Kenya, and Poor politics by politicians towards electricity expansions to all parts of the Country.***

Keywords: Kenya; Electricity; Monopoly, Investment.

1. Introduction

In economics, a natural monopoly occurs when, due to the economies of scale of a particular industry, the maximum efficiency of production and distribution is realized through a single supplier, but in some cases inefficiency may take place.

Natural monopolies arise where the largest supplier in an industry, often the first supplier in a market, has an overwhelming cost advantage over other actual or potential competitors. This tends to be the case in industries where capital costs predominate, creating economies of scale which are large in relation to the size of the market, and hence high barriers to entry; examples include water services and electricity. It is very expensive to build transmission networks (water/gas pipelines, electricity and telephone lines); therefore it is unlikely that a potential competitor would be willing to make the capital investment needed to even enter the monopolist's market (8).

It may also depend on control of a particular natural resource. Companies that grow to take advantage of economies of scale often run into problems of bureaucracy; these factors interact to produce an "ideal" size for a company, at which the company's average cost of production is minimized. If that ideal size is large enough to supply the whole market, then that market is a natural monopoly. In the case of Kenya, electricity generation and supply is different due to the fact that the government of Kenya looks not ready to remove monopoly in this area of investment, living the whole country to suffer.

Electricity distributor the Kenya Power and Lighting Company has increased the fuel cost segment of its billing, signaling that consumers are unlikely to get relief from the heavy cost burden they have been bearing in recent months. The rains were expected to cause an immediate drop in the cost of electricity as the country consumed more of the less expensive hydro power and cut back on the more expensive thermal power but instead no drop on cost of fuel. A steep drop in hydro power's contribution to the national grid has seen electricity bills surge by a margin of 60 per cent since March 2009 on the back of rising fuel costs charges, a varying item on the bills that is linked to the amount of power on the national grid that is generated from thermal sources.

Power producer KenGen and the Energy Regulatory Commission (ERC) reckon that the hydro power dams were to be replenished in December 2009 and it was not successful. That outlook means that electricity consumers will continue to bear a heavy cost burden for the coming years because of the continued reliance on fuel-driven power generators to meet demand. Though the portion of thermal power on the national grid is expected to decline marginally, rising crude oil prices is expected to erode any potential pricing gains. KPLC had informed power consumers, through the latest Kenya Gazette notice, that they were to pay a fuel cost surcharge of Sh7.75 per unit of power up from Sh7.43.

This component of the bill has risen from Sh4.10 in March 2009, adding pressure to the rate of inflation that has also been subject to a steep rise in food prices and the ongoing recovery of global petroleum prices. The high cost of electricity affects more than one million consumers, most of whom have already suffered significant losses of purchasing power because of the escalating food, water and transport prices.

Besides the direct cost of domestic consumption, the rising power prices are jerking up production costs for manufacturers who are passing the additional expenses to

their consumers. The Central Bank of Kenya (CBK) warned that the cost of living is set to rise further in coming years, fuelled by rising water and energy prices. "Inflation is likely to rise as a result of the rising fuel costs as diesel is used to generate thermal energy," said CBK.

Energy economists predicted that the fuel charge would cross the Sh8 mark on increased use of thermal power to the national grid and the surging fuel prices. As the economy continue to reel from the effects of drought every now and again, which has led to a sharp decline in agricultural output, analysts have identified the supply of power to the growing economy as the biggest challenge the government will face in the coming years. Kenya has an installed power capacity of 1, 480 mega watts, including temporary emergency power of 290 megawatts, but is currently supplying about 1050 megawatts at peak time.

2. Position of Kakamega District and Bungoma District in Western Province, Kenya

The four *traditional* districts of Western Province, Kenya

3. High cost of electricity to the people of Kenya

According to Kenya Association of Manufacturers (5), Press Statement on the Effects of Escalating Power Costs on Industry. The following indicate the diverse effects of monopoly in electricity generation and electricity supply in Kenya:

Energy costs in the country have increased tremendously over the past few months affecting the cost of doing business across all sectors of the economy making Kenya's products very uncompetitive in the international market. With these exorbitant rates, Kenyan industries are now faced with the grim reality of business closures and possible relocations which will deal the country's economy a major blow since the manufacturing sector, including the SME sector, is the main engine of our economy.

Over the last two months, we have received strong protests from our members regarding the recent increase in electricity costs. Our analysis reveals the following facts on how the electricity costs are slowing down productivity within the manufacturing sector:

- Overall effective cost per unit of electricity for the industrial sector has gone up from Ksh 8.00 to Ksh 15.00 on average.
- In September 2008 alone, fuel cost adjustments are set to go up from Kshs 7.69 to Kshs 7.78 per unit; the cost is expected to increase further.
- In January 2008, the fuel cost charge was Kshs 1.77 per unit compared to Kshs 1.12 per unit during the same period previous year.
- The current increases constitute approximately 600 percent over the past one year which is outrageously high for our struggling economy.
- Kenyan manufacturers are paying between Sh10 and Sh15 per kilowatt of electricity; while their competitors in China and India pay the equivalent of between Sh 2.50 and Sh 3.80 per kilowatt of electricity. This makes their products much cheaper than Kenya's.

To say that production costs in Kenya are among the highest globally is an understatement; yet manufacturers are the largest power consumers. Energy costs alone constitute over 40 per cent of the total manufacturing costs which is approximately 33 per cent increase in overall costs.

Kenya's products are increasingly finding it difficult to compete with those from other countries especially Asia, because of the variations in the costs of doing business. Within the Comesa bloc, Kenya's two major competitors Egypt and South Africa pay minimal electricity costs compared to Kenya. This is unfortunate bearing in mind that these are among our main competitors. For instance, Kenya pays four times higher than Egypt.

3. As a result of this high cost of electricity, Kenya's target of attaining into a middle income economy status by the year 2030 is becoming a pipe-dream.

The ambitious Vision 2030 which was launched early 2008 pledges to triple Kenya's economic fortunes within the next 22 years to the levels of economically rising countries including Malaysia and Singapore. However, this will be difficult to achieve if the costs of electricity remain punitive and therefore discourage the growth of the manufacturing sector.

In view of this, we propose immediate remedial action to halt this display of impunity by the electricity providers. The Minister for Energy must step in before it is too late to save our industries from collapse. What would Business like Government to do Regarding High Electricity Prices?

1) Increase investment Generating Capacity: Government should demonstrate by policies and processes that it is doing everything possible to increase generating capacity. Relying on State provision by KenGen alone is insufficient. Government should actively encourage other investors from the private sector to participate and

explore other sources of thermal energy besides fuel based e.g. coal. There are investors that have expressed interest to Government in this regard and but there has been slow response.

2) Encourage Industries to generate for own use and sell excess to Grid. Beyond the policies thus enacted, Government should actively encourage large consumers to generate electricity for own use and sell excess to the national grid.
3) Demonstrate Seriousness and commitment to roll out of programmes for Renewable Energy: Government has stated severally its commitment to expansion and adoption of renewable energy generation e.g. solar and wind. However, there are no significant Government backed programmes to do this. Requirements for all buildings to have solar power installations and exploitation of wind power, would go a long way in reducing the current pressure on existing supplies.
4) Review Revenue Maximization Policies: Government should stop fuelling the inflationary pressure: Government Revenue makes up a significant portion of fuel price at 35%. With a high thermal content in Electricity, Government should cap its revenue collections from fuel used for generation to ease the price consumers pay. This situation is grave for the economy and painful for all consumers. It does not augur well for Government to increase its revenue collection beyond anticipated targets out of such a grave situation.
5) Incentives Energy Conservation: Government should provide Tax incentives and credits for installation of power saving devices at household level and industry.
6) Review the Financing models used by the utility companies; one of the arguments made by the ERC when announcing the new tariffs in June, was that it would help both KPLC and KenGen meet the cost of new capital expenditure in systems improvement. However we urge that this model used is revised to reduce initial burden on consumers and spread payout over a longer time span.
7) Be a Partner to Society in absorbing the pain of high Energy Costs. Government should provide relief to consumers by absorbing some of the additional costs e.g. of rental charges for the emergency power generation. Other charges the Government should pick up include cost of fuel used for Generating Electricity above US$ 70 Pb.
8) Review Programmes for Demand Expansion: there are many government programmes to expand demand for Electricity amid crippling shortages and prices. In order to match promise and delivery, Government should review such programmes.
9) Demonstrate partnership with Business and Society in finding lasting solutions to the power problem. We as business and other sections of Society have ideas for solutions to the existing challenge. We ask Government to actively partner with all in the search for solutions to this crippling challenge.

In Western Kenya this effect is to the extreme due to the fact that electricity is only available to very little population within towns and not covering the whole town with estates included. According to statistics, 100% of the people interviewed believed that investment growth in Kenya is fully not able to expand because any other investor is not allowed to generate power and supply power directly to the people.

4. Low coverage of electricity within the nation

In Kenya, electricity coverage is so minimal. It covers some few areas, mainly in major towns. But still in these towns it does not serve effectively. Blackouts are common and this does not attract investors both locally and internationally. Reason for having this happening in Kenya is due to the fact that electricity generation and supply have been monopolized. Investors have no options to choose from for the purpose of electricity supply.

The rural set up has been forgotten but during the general election some empty promises are given to the people concerning electricity supply. The vision 2030 cannot be achieved whatsoever if this trend continues in the same way. The government of Kenya must accept to remove monopoly in the generation and supply of power, so that the private investors can begin investing in power generation and they supply directly to their customers. This will create competition and as well improve services to both business and household communities in Kenya.

This research found that with the removal of monopoly from power generation and power supply in Kenya, Kenya will be able to become an industrialized nation within a period of seven years from the removal of monopoly. This has been supported by the interviewees with one major reason. That is, private investors will target specific areas e.g. towns and rural. A company will be able to generate and supply only one town or towns and some may be able to supply both town and rural depending on their abilities. Other companies may target only rural areas. It is expected that within a period of seven years, over three quarters of the country shall have been covered by electricity through private investors.

Another area which will improve very fast is the use of meters. Currently the Kenya power and Lightening Company is still using analog meters which they use to frustrate customers by disconnecting power to their own customers at their will and force them to pay extra money for reconnection, at times, it has been reported that they read meters wrongly by charging customers higher bills than what is actually shown in the meter, force the customer to pay even if a complain has been launched by the customer. This is unnecessary in the current world. The control of electricity payments should be digital so that one just buy the card as in telephones and reload his digital meter. When credit is over it disconnects automatically until another reload. This will cut off extra cost like fuel cost and inconveniencies. What will propel this to its full work is only in the hand of private sector. They will improve the services in the energy sector to minimize the current frustrations experienced by the majority of Kenyans.

Table 1: Number of the respondents

Study Site	*Total No.*	*No. of Male*	*No. of Female*	*Town*	*Rural*
Bungoma	421	191	230	240	181
Kakamega	510	302	208	325	185
	931	**493**	**438**	**565**	**366**

5. Rural Urban Migrations

Rural electrification is the process of bringing electrical power to rural and remote areas. Electricity is used not only for lighting and household purposes, but it also allows for mechanization of many farming operations, such as threshing, milking, and hoisting grain for storage; in areas facing labor shortages, this allows for greater productivity at reduced cost. Worldwide more than 1.6 billion people do not have access to electricity, of which 80 % live in rural areas. In Sub Saharan Africa only 9 % of the rural population has access to electricity (1).

The migration to urban centers will continue to stay with us in Kenya if the electricity generation and electricity supply remains monopolized. This indication has been supported by the evident of scarce electricity distribution in Kenya. Even in towns, electricity is not evenly provided. The few areas covered with electricity do experience blackouts at anytime for along period of time, and this interferes with the normal operations. So is the call for the removal of monopoly in electricity generation and electricity supply in Kenya.

The rural areas are badly hit by lack of electricity. This makes it impossible to do anything valuable in terms of job creation apart from agriculture which also at some point depends on electricity mainly for irrigation. Companies and Jua Kali work can reduce the rural urban migration. But this cannot pick up due to the fact that there is no electricity supply in those areas. Rural urban migration will therefore continue until such a time monopoly in electricity generation and electricity supply is removed.

Currently the money for rural electrification was allocated by the government where a total of Sh3.5 billion was allocated to constituencies countrywide for rural electrification projects.

The cash was distributed using the same criteria applied in the disbursement of the Constituency Development Fund. However, Starehe and Mvita constituencies missed out in the rural electrification funds after being ranked the richest electoral areas in Kenya according to the poverty index report. Bahari and Eldoret North each were to get Sh23 million, the highest among the 210 constituencies' funds meant to improve electricity supply in rural areas.

According to the Rural Electrification Authority (REA), constituencies in Rift Valley Province were to receive the lion's share of the fund with slightly over Sh858 million followed by those in Eastern Province, which were allocated a total of Sh656 million. Nairobi Province which is over 90 per cent connected to electricity, was to get Sh35 million.

Others are Nyanza Province Sh604 million, Central Province Sh461 million, Western Province Sh457 million Coast Sh331 million while North Eastern Province gets Sh181 million. The CDF-like distribution formula means that constituencies which received the highest CDF allocation will also be the main beneficiaries of the new fund.

In the REA list, Makadara, Lang'ata, Kamukunji, Dagoretti, Westlands, Kasarani and Embakasi all in Nairobi that was aimed at each to get Sh5 million. Other top earners are Coast's Kaloleni, Western's Lurambi, Kimilili and Eastern's Makueni (Sh23 million each) and Nyanza's North Mugirango/Borabu (Sh22 million).

It was estimated that more than half of the country's population lack access to electricity. Other statistics indicate that only 10 per cent of rural population is connected to power despite the rural electrification programme starting in 1973. At the same time, only 40 per cent of public institutions such as secondary schools and health institutions have electricity.

The Rural Electrification Authority was formed to spearhead the supply of power to rural areas. The task was previously undertaken by power distributor Kenya Power and Lighting Company. The government plans to connect over one million new consumers to the power grid. Among public institutions set to benefit from the programme are schools, health institutions, coffee and tea factories. At the launch of REA, chief executive officer Zachary Ayieko said that the authority would enable people living in rural areas to benefit from power that will spur development in these areas. He said; "we seek to connect all public facilities by 2012 at a cost of Sh50 billion and provide electricity to every Kenyan by 2030 under our strategic plan. Achieving the country's long-term development blueprint famously referred to as Vision 2030 is pegged on most if not all Kenyans accessing power" (2).

The major questions in doubt are "will the government of Kenya reduce the cost of installation and daily operation to its own people? Will blackouts stop to occur? Will corruption taking place in Kenya Power and Lightening offices countrywide currently stop from frustrating customers? Will digital meters be in use so that no one comes to your door for disconnection of power? For how long will people be waiting for power installation after payment and do the customers need to follow up? And finally will the offices of Kenya Power and Lightening be decentralized so that people get access to them easily?

These are some of the questions in the mind of people and are affecting investments in Kenya. So, as much as the government is trying to put things in place towards rural electrification, competition is the only way to achieve the goal for the vision 2030. Competition will only be possible when monopoly in electricity generation and electricity supply is removed. By doing this the level of power reliability and affordability will be attained.

6. Eventual privatization of the industry, to introduce elements of free enterprise and competition

Splitting the electricity supply industry from a single national organization into competing, generating and distributing concerns joined by a single National Grid and Pool entity is neither original nor new. Most countries of Western Europe have implemented such schemes since the 1990s. Several countries in the Middle East are in different stages of converting into such systems. Most countries, though, embark on this process for eventual privatization of the industry, to introduce elements of free enterprise and competition, and to attract foreign investment. It is clearly important to bring privatization into Kenya at the present time to eliminate the frustrations of power black outs occurring every time everywhere without any correctional concerned from the providers. But regardless of private or public ownership, the electricity system must be run efficiently, and the economic advantages of decentralization are overwhelming (4).

7. Smaller Power Stations' Benefits

Smaller power stations spread around the country will:

- Be less vulnerable to attack from acts of sabotage or war, and if forced into shutdown, will have a smaller effect on electricity supply nationwide.
- Have shorter lead times to be manufactured, installed, put into operation, and be on-line than the larger plants.
- Diversify suppliers, thus increasing vendors' competition. Spares are more available from diverse sources.
- Be more suited to the daily load pattern with predominantly domestic and low load factors. Smaller units require shorter times for start-ups and shutdowns.
- Provide more employment opportunities, which will also be spread out throughout the country, both at the construction and operation stages.
- Be less complex and less technically demanding, so enabling more local participation.
- Be training grounds for local skilled technicians who will be useful to the local communities in other, related industries.
- Allow locally-recruited employees to serve their own communities.
- Be regarded as part of the public amenities for the area and communities will be empowered to protect them.
- Draw in participation from local national investors. Large sized power stations limit participation and competition to very few multinational companies. Local investors have vested interest in national projects, different perception of country risk and commit for longer terms.

8. Low investment expansions in small towns and rural set up due to lack of electricity

The research found out that the rate at which investments take place both in towns and rural areas is too low to improve the living standard. This low rate is fully facilitated by lack of electricity and frustrations instituted by the KPLC Company. It was found that the electricity coverage within Kakamega town alone is so poor, with blackouts every now and again. This experience makes it difficult for continuous operation for investments which rely on electricity a hundred percent.

In the rural set up, the electricity coverage is almost zero. The percentage is negligible. This has made it impossible for any major investment to take place in these areas. The main obstacle mentioned is the monopoly in electricity generation and electricity supply in Kenya. The respondents believed that investment will pick up only when the monopoly shall have been removed. Majority of the participants' hope that one day the members of parliament they elected will listen to their cry and remove monopoly in electricity generation and electricity supply in Kenya. Many gave an example of Mumias Sugar Company found in Mumias town. It was stated that Mumias Sugar Company could have rescued the town and the surrounding area from power problem. This is due to the fact that the Company is generating electricity for its own use but it was forced to sell the surplus to Kengen because the current monopoly in power generation does not allow any other Company to generate and supply electricity directly to customers.

It was found that all Sugar companies in Kenya are able to generate electricity for their use and even more than they need. But due to monopoly in power generation and supply, they are not motivated to give out the surplus because it does not benefit them directly. It therefore means, by now towns near any major sugar company and its surrounding should be in a position to have options of which company to supply them with electricity if monopoly was there.

There is serous appeal to the government of Kenya by its own people to remove monopoly in electricity generation and supply so as to promote private sector investments. It is hoped that rural areas will be able to exploit the use of electricity very well in terms of investment. Some major companies will begin to have interest in rural areas and this will create employment and reduce crime all over the country.

Table 2: Investments in towns and rural set up in relation to electricity

Study Site	*Town (%)*	*Rural (%)*	*Total (%)*
Bungoma	1.01	0.01	1.02
Kakamega	1.63	0.04	1.67
	2.64	**0.05**	**2.69**

The Electricity Regulatory Board (ERB) failure to advice correctly for the promotion of electricity widespread in Kenya

Power shortages and lack of supply to meet demand has hampered Kenya's economic growth. A mere 15% of the population has access to electricity, and there are numerous blackouts and long waiting lists for connection. The geothermal power plant is designed to relieve severe power shortages, decrease the country's dependency on energy imports and thermal energy and to reduce green house gas emissions. The plant, with a combined capacity of 48 MW, uses environmentally-friendly geothermal energy to generate

electricity rather than the less green hydrocarbons, producing low to nearly no green house gas emissions.

Electricity Regulatory Board (ERB) of Kenya is fully being blamed for not being sensitive in their mandate. The participants view ERB as a stumbling block in expansion of electricity in Kenya. It is within their role to advice the government about the serous shortage of electricity and gives the direction on what should be done. Where, in this research it was found that the best option is to remove the monopoly in electricity generation and electricity supply.

The vision 2030 of having Kenya become an industrialized nation will not be achieved with this trend of monopoly in electricity generation and electricity supply. A country can only be proud of itself when it is able to provide to its people the basic things at affordable prices. In Kenya this is not the case. There is so much monopoly in electricity generation and electricity supply and cartels in petroleum supply created by the big figures in the government. This kind of trend will only continue to frustrate the already frustrated Kenyans. It is the role of the ERB to strongly advice the government to give in to monopoly removal.

9. Poor politics by politicians towards electricity expansions to all parts of the Country

Politics is playing a major role in electricity distribution in Kenya. It also plays a big role in the removal of monopoly in electricity generation and electricity supply. This is fully supported by the fact that the politicians are also the members of parliament and therefore they have the mandate to remove any monopoly by preparing a bill in the same line so that it can be debated in parliament and finally such a monopoly be removed.

Currently the politicians who are the members of parliament do not show any indication of removing this monopoly so that electricity generation and electricity supply can be open for competition. Competition in this sector will improve electricity coverage all over the nation and as well improve the quality of service. It is predicted that there will be no everyday blackouts with competition in place.

The members of parliament are doing nothing about the removal of monopoly in electricity generation and electricity supply. As DiLorenzo, Thomas J. explains "The Myth of Natural Monopoly". See his explanation below:

“Because the existence of a natural monopoly depends on an industry's cost structure, which can change dramatically through new technology (both physical and organizational/institutional), the nature or even existence of natural monopoly may change over time. A classic example is the undermining of the natural monopoly of the canals in eighteenth century Britain by the emergence in the nineteenth century of the new technology of railways.

Arguments from public choice suggest that regulatory capture is likely in the case of a regulated private monopoly. Moreover, in some cases the costs to society of overzealous regulation may be higher than the costs of permitting an unregulated private monopoly. (Although the monopolist charges monopoly prices, much of the price increase is a transfer rather than a loss to society) (6).

More fundamentally, the theory of contestable markets developed by Baumol and others argues that monopolists (including natural monopolists) may be forced over time by the mere *possibility* of competition at some point in the future to limit their monopolistic behavior, in order to deter entry. In the limit, a monopolist is forced to make the same production decisions as a competitive market would produce. A common example is that of airline flight schedules, where a particular airline may have a monopoly between destinations A and B, but the relative ease with which in many cases competitors could also serve that route limits its monopolistic behavior. The argument even applies somewhat to government-granted monopolies, as although they are protected from competitors entering the industry, in a democracy excessively monopolistic behavior may lead to the monopoly being revoked, or given to another party.

Nobel economist Milton Friedman, said that in the case of natural monopoly that "there is only a choice among three evils: private unregulated monopoly, private monopoly regulated by the state, and government operation." He said "the least of these evils is private unregulated monopoly where this is tolerable." He reasons that the other alternatives are "exceedingly difficult to reverse," and that the dynamics of the market should be allowed the opportunity to have an effect and is likely to do so (*Capitalism and Freedom*). In a Wincott Lecture, he said that if the commodity in question is "essential" (for example: water or electricity) and the "monopoly power is sizeable," then "either public regulation or ownership may be a lesser evil." However, he goes on to say that such action by government should not consist of forbidding competition by law. Friedman has taken a stronger laissez-faire stance since, saying that "over time I have gradually come to the conclusion that antitrust laws do far more harm than good and that we would be better off if we didn’t have them at all, if we could get rid of them" (*The Business Community's Suicidal Impulse*) (7).

Advocates of laissez-faire capitalism, such as libertarians, typically say that permanent natural monopolies are merely theoretical. Economists from the Austrian school claim that governments take ownership of the means of production in certain industries and ban competition under the false pretense that they are natural monopolies”. (3). From the explanation above, it is clear that monopoly in essential commodities like electricity is extremely dangerous. Like in the case of Kenya, it is really hurting the people of Kenya. The prices of electricity bills are too high and the burden is heavily felt by the common man.

The government of Kenya should move very fast to remove the monopoly in electricity generation and electricity supply. This action will reduce the cost and improve on efficiency in electricity supply. Rural areas will begin to wake up and start income generating projects. Rural urban migration will tremendously reduce since jobs will be created by the people themselves within the rural set up. So much can be done

with electricity and therefore private investors should be allowed to generate and supply electricity directly to people. Findings of this research found that private investors can easily lead Kenya to full industrialization within a span of seven years from the time monopoly shall have been removed. Investors will be able to choose their own desired company to supply them with electricity to avoid blackouts which is too costly for them now.

10. Conclusion

According to the Interim Poverty Reduction Strategy Paper (IPRS) 2000–2003, July 13, 2000. Their findings for poverty eradication did not include lack of electricity as an issue to be addressed. In their findings, they did not include monopoly in electricity generation and electricity supply to be a key stumbling block in poverty eradication. The government therefore has no picture about monopoly in electricity generation and electricity supply as one area which require an urgent action.

This research found out that the major setback in investment expansion within Kenya is due to lack of electricity in many parts of the country including small towns and centres. Considering that in the whole country only 15% covered with electricity which is not reliable at all due to frequent blackouts and long waiting for reconnection. Kakamega and Bungoma where the research was carried out only registered less than 2.69% electricity coverage with a lot of frustrations because of blackouts and long waiting for reconnection. Areas seen as covered by electricity are not doing well because there is no steady electricity supply. Blackouts are common and no attention given to its occurrence by the Kenya Power and Lightening Company. People who have applied for electricity installations are kept waiting for too long with so much corruption within energy sector offices. This trend leads to so many destructions to the few investors who are available within the region. It was therefore concluded that Monopoly in electricity generation and electricity supply is the major setback in investment expansion all over the country. It was also seen that the vision 2030 cannot be achieved in Kenya with these monopolies in place and heavy blackouts frequently occurring with long waiting for reconnection. Digital meters will solve this anomaly of reconnection charges put on customers by the Kenya Power and Lightening Company.

11. Recommendation

It is recommended that the monopoly in electricity generation and electricity supply be removed as urgently as possible to allow private investors to come in so that every part of the country may begin to receive a steady supply of electricity, both in towns and rural set ups. The participants in this research strongly call upon the government to move in very fast in removing these monopolies in electricity generation and electricity supply. The vision 2030 can only be achieved by allowing competition to take place in the energy sector. The cost for electricity is so high for the common man and even companies which rely on electricity for their operations. Fixed charge alone is over one hundred Kenya shillings. While majority of the people of Kenya earns averagely eighty Kenya shillings per day. This amount is translated into one thousand nine hundred and thirty six Kenya shillings a month excluding weekends.

The current analog meters are contributing towards the frustrations customers receive from electricity supply. It is recommended that digital meters be used to avoid disconnection and charges which goes with its reconnection. The only major solution is for the government of Kenya to remove Monopoly in electricity generation and electricity supply urgently so that Kenya economy can begin to grow faster. This will give investors an opportunity to choose the company of their choice to supply them with electricity at affordable cost and high reliability. The government should reduce taxes on companies to enable them be affordable to the locals and their goods competitive across the borders.

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