U4 ANTI-CORRUPTION RESOURCE CENTRE

U4 Brief 2019:1

‘Kenyapowerless’ – Corruption in electricity as ‘problem-solving’ in Kenya’s periphery

By Festus Boamah and Aled Williams

CMI CHR. MICHELSEN INSTITUTE

Disclaimer
All views in this text are the author(s)', and may differ from the U4 partner agencies' policies.

Partner agencies
Australian Government – Department for Foreign Affairs and Trade – DFAT
German Corporation for International Cooperation – GIZ
German Federal Ministry for Economic Cooperation and Development – BMZ
Global Affairs Canada
Ministry for Foreign Affairs of Finland
Ministry of Foreign Affairs of Denmark / Danish International Development Assistance – Danida
Swedish International Development Cooperation Agency – Sida
Swiss Agency for Development and Cooperation – SDC
The Norwegian Agency for Development Cooperation – Norad
UK Aid – Department for International Development

About U4
U4 is a team of anti-corruption advisers working to share research and evidence to help international development actors get sustainable results. The work involves dialogue, publications, online training, workshops, helpdesk, and innovation. U4 is a permanent centre at the Chr. Michelsen Institute (CMI) in Norway. CMI is a non-profit, multi-disciplinary research institute with social scientists specialising in development studies.
www.U4.no
U4@cmi.no

Cover photo
computerwhiz417 (CC by-nc) https://www.flickr.com/photos/thestuff/2646781492

Keywords
energy sector - electricity - infrastructure - Kenya

Publication type
U4 Brief

Rising demand for electricity in the Kenyan periphery has created opportunities for corruption. Decentralised solar electricity exists, but those running a business from home using modern appliances need more energy. Desperate for access to the electrical grid, people resort to bribing public officers to get connected. Criteria for inclusion in rural electrification initiatives are unclear and leave people confused. As a result, corruption appears to be a 'problem-solver' in Kenya's electricity market – a notion reinforced by corruption scandals hitting Kenya Power – the sole distributor. Development practitioners should start by focusing on the planning stages of electrification initiatives, and project implementation style, to address these challenges.

Main points

- Rising demand for electricity in the Kenyan periphery has created opportunities for corruption.
- Ambitious grid connection targets have given rise to 'tenderpreneurship.'
- Confusing electrification schemes have led to households bribing public officials and officials and private actors extracting bribes from residents.
- The high price of decentralised solar PV systems in Kenya has resulted in illicit use of unlicensed technicians.
- Educating the public about grid connection modalities, removing bureaucratic bottlenecks, and speeding up grid application processes, could have discouraged corruption in Kenya's electricity market.

Table of contents

About the authors

Festus Boamah

Festus Boamah is a Postdoctoral Researcher at the Department of Social and Population Geography at the University of Bayreuth, Germany.

Aled Williams

Aled Williams is a political scientist with a background in international relations and political philosophy. He is responsible for U4's thematic work on *corruption in natural resources and energy* and *international drivers of corruption*.

Abbreviations

ELCOS – Electricity Consumers Association of Kenya

ERC – Energy Regulatory Commission of Kenya

KES – Kenyan Shilling

KPLC – Kenya Power and Lighting Company

M-KOPA – A private Kenyan solar energy company

PV – Photovoltaics

REA – Rural Electrification Authority

Motivations for electricity market corruption

Since the 1990s, governments across Africa have increasingly involved private actors in electricity generation, although electricity distribution and retailing is still largely centralised – with state agencies maintaining considerable control.[1] An estimated 573 million people in Africa – especially residents of remote locations – still lack access to electricity, while other regions of the world have made great progress in recent years.[2] Many individuals and businesses across Africa continue to count on government infrastructure and agencies for their power needs.

Central governments in Africa currently strive for universal electricity access by 2030.

Electricity provision tends to be expensive and unreliable, and the infrastructure is deteriorating under routine bureaucratic neglect. As a result, some actors employ unsanctioned electricity connection and extension practices, involving power theft, bribery, and other illegal activities.[3] Grid electricity is desirable to most people, and the high demand for connectivity has created space for clandestine deals, cartels and illegal financial transactions in electricity generation and distribution.[4] These challenges are not only evident in Africa. Power theft and the offer of bribery to public officials in order to gain or expedite electricity connections are common in developing countries.[5]

1. Barnes and Floor (1996); Trotter (2016).
2. World Bank (2019).
3. Degani (2017).
4. Boamah (2018).
5. Pless (2014); World Bank (2009); Estache et al. (2006).

Kenya – a classic case of real-world electricity problems

Recent research points to gaps between conventional explanations for corruption's prevalence and the real-world functionality of corruption in certain contexts.[6] Some have posited that corruption is a form of governance in itself and is not simply an aberration from ideal-type governance mechanisms.[7] If corruption may be functional at certain times and in certain places, it is worth identifying what real-world problems are at stake, because this may help identify alternative, non-corrupt solutions.

Central governments in Africa currently strive for universal electricity access by 2030. In this setting – as an entry point for anti-corruption interventions – we suggest to focus on the planning stages of electrification initiatives, project implementation style, and their potential effects on societal perceptions of corruption.[8]

Kenya is a classic case for testing this hypothesis. Kenya's electricity grid centers on densely populated urban areas where grid extension costs are relatively cheap.[9] In rural-peripheral locations, however, grid electricity is either unavailable or unreliable.[10] Frequent blackouts, exorbitant electricity bills, perceived corruption, and frequent delays in the maintenance of power transmission systems in rural areas have driven massive uptake of solar photovoltaic (PV) systems.[11]

Kenya's electricity access rate has dramatically improved in recent years, from 8% in 2000 to 75% in 2019.

6. Marquette and Pfeiffer (2018).
7. Williams and Le Billon (2017).
8. Boamah (2018).
9. Parshall (2009).
10. Boamah (2018).
11. Winther et al. (2018).

In response, the Kenyan government has expressed commitment to rural electrification as part of its economic transformation[12] and universal electricity access visions.[13] Ambitious grid electricity projects are underway and, in 2013, subsidised rural electrification initiatives were introduced under the auspices of Kenya's electricity distributor, Kenya Power (KPLC), and the Rural Electrification Authority (REA). Yet, eligibility criteria for these initiatives are unclear and related bureautic processes are frustrating.[14] Red tape is a major challenge: it takes an average of 212 days to complete rural electrification projects in Kenya, resulting in widespread expectations among the rural population that they will encounter delays.[15] Moreover, Kenya's electricity parastatals have lost trust over the last few years owing to scandals. These include alleged cheating on the part of KPLC via their monthly billing system, and a recent controversial tariff review by the Energy Regulatory Commission (ERC).

Corruption cartels and self-organisation of electricity

Kenya's electricity access rate has dramatically improved in recent years, leapfrogging from 8% in 2000 to 70% in 2017, and through to 75% as of April 2019. Total installed power generation capacity has currently reached 2.700 mega-Watts and with a peak demand of 1.880 mega-Watts. Erratic supply persists, however, especially in peripheral locations – despite that the country records an excess power supply of almost 1.000 mega-Watts. Vandalism of transformers to steal components (eg copper wires and precious liquids) and installation of sub-standard transformers affect power supply in most rural areas, while power theft was widespread in slum areas until the introduction of pre-paid metering in 2011.[16] Improved electricity provision is an integral part of Kenya's recent economic transformation agenda rolled out by the Uhuru Kenyatta government, which seeks to increase electricity access – especially in the least-developed counties.

Before 2004, the cost of grid electricity access varied significantly depending on the distance from the nearest transformer. The grid connection

12. Vision (2030).
13. Vision (2020).
14. Boamah (2018).
15. Lee et al. (2017).
16. Boamah (2018).

process was slow and prices tended to be high. A standard grid connection cost of 35.000 Kenyan Shilling (KES)[17] was introduced for consumers located within 600 meters of existing transformers. In 2013, grid connection costs to suit the circumstances of different customers were introduced. Premium connections were available to customers located far away from transformers, who could gain grid access by fully financing their own connection. Premium customers could either submit applications indvidually or as groups, and were assured of expeditious connections – usually within 45 days of approval.

In 2015, KPLC had over 17.600 underused transformers and so, in 2016, it introduced a Last Mile Connectivity programme. This focused on providing electricity to homes located within 600 meters of selected underused transformers at a cost of KES 15.000. This connection cost in practice included only the direct connection to existing local power transmission lines, excluding labour, material costs and standard charges. Homes located within the 600 meters, but that were still beyond the 'drop-line range,' incurred additional costs, including for low-voltage poles. Given scattered settlement patterns in Kenya's periphery, only a few residents benefited from the programme. Residents in the periphery could however still gain grid connections via other rural electrification initiatives targeting schools, churches, markets, hospitals, and government offices.

These novel electrification initiatives, which involved different cost estimates and eligibility conditions, were confusing for many people, especially the illiterate. People were unsure whether to send applications to the KPLC or REA, and were disconcerted by delays introduced by persons posing as middlemen to facilitate the process. Perceptions of collusion between KPLC officials and grid-connected households began to emerge. In one case – highlighted during an in-field interview – an individual had gained approval for a premium grid connection, yet managed to convince other prospective customers in the area to pay additional money as part of an "appreciation package" for the middleman who facilitated the deal.

17. In 2019, 35.000 Kenyan Shillings is approximately 300 Euros.

The rise of 'tenderpreneurs'

Tenderpreneurship is a term combining the words *tender* and *enterpreneurship*. Originally, the term is a South African colloquialism for a businessperson who uses political contacts, networks, or affiliations to faciliate and secure government contracts, often exchanging favours or benefits.[18] The term has become associated with corruption, nepotism, and clientelism given that tenders can be awarded based on informal interests and/or political affiliation, rather than adherence to formal or legal procedures. Tenderpreneurship has become a challenge in government procurement across Africa, and Kenya's electricity sector is emblematic of the practice.

Until 2004, KPLC was connecting only around 45.000 customers to the grid each year, and it was considering how to increase its annual connections. This coincided with the Energy Sector Recovery Program (ESRP): a USD 220 million loan facility from the World Bank between 2005 and 2013. One aspect of ESRP was a transmission line systems upgrade, and Canadian managers were hired to increase annual connections to 120.000 for timely recovery of the loan. When that target was achieved in 2005–2006, annual targets became more ambitious. Meanwhile, the KPLC had an understaffed engineering department and had to outsource grid construction to private contractors. Some KPLC officials set up their own companies to benefit from the new opportunities. KPLC increased its annual connections target to 160.000, then to 200.000 and later 400.000 connections. These figures even doubled to 800.000 connections in 2013–2014 and increased further to 1.38 million connections in 2016.

Corrupt practices came to a head in 2018 when two managing directors of KPLC and 19 officials faced prosecution.

Ambitious connection targets correspondingly increased outsourcing of grid construction, thereby giving rise to tenderpreneurs in Kenya's electricity sector. Corrupt practices came to a head in 2018 when two managing

18. Piper and Charman (2018).

directors of KPLC and 19 officials faced prosecution for procuring low-quality transformers worth over KES 409 million, outsourcing line construction and other related services to non-qualified, unregistered firms.[19] An internal audit report (2016–2017 financial year) also uncovered KPLC officials who colluded with unregistered supplier companies to facilitate tender approvals, contravening the Public Procurement and Disposal Act of Kenya. In response, since July 2018, KPLC has ended contracts with these private entities, and reverted to using its own engineers for grid constructions.

#Kenyapowerless

In 2018, the ERC increased tariffs by 100%. The increase was justified by the ERC with reference to the KES 10.1 billion needed for energy system expansion and maintenance. There were, however, allegations in the media that the government intended to illegally recover outstanding debts accumulated through diesel-powered electricity generation during the 2016 elections, and shift costs onto unsuspecting consumers. A petition – initiated by a Kenyan activist and lawyer, Apollo Mboya, on behalf of the Electricity Consumers Association of Kenya (ELCOS) in the Kenyan High Court – had earlier sought to prevent the tariff hike. The court verdict upheld the ELCOS petition and instructed the ERC and KPLC to stop the proposed tariff increase. This verdict was, however, rebuffed by the ERC and aggrieved customers took to Twitter to mobilise support for a follow-up legal case, using the Twitter handle #Kenyapowerless. Eventually, the ERC decided to settle the case and, in October 2018, a further tariff review led to price reductions.

Living with or without electricity in the Kenyan periphery

Rising living costs in urban areas and urban residents' nostalgic impulses to retire in native homelands have both increased demand for grid electricity connections in the Kenyan periphery, even in homes that have already installed solar PV systems. Poorer households needing electricity for basic lighting, phone charging and radios usually resort to small solar systems

19. Fieldwork interviews in 2017/2018; Mathenge (2018); Ogemba and Korir (2018).

(between 8 and 100 Watts). Relatively wealthier households seeking to use modern appliances to run home-based businesses urgently need grid electricity, however. Fieldwork findings show that households that switched between the city and the periphery, and that had installed between 100-Watts and 1-KW to power household appliances, generally did not offer bribes to gain electrical grid connections. The reverse was the case for those that needed grid electricity to replicate urban lifestyles and run home-based businesses in the Kenyan periphery.

Some households who submitted group applications to electrification initiatives were given cost estimates of between KES 1.2 and 2.5 million and were still required to offer bribes to KPLC officials and intermediaries to facilitate the entire electrification process. A household member who claimed to have been defrauded (with 37 others) by a KPLC impersonator explained: 'the officer promised to include us in the list of Last Mile beneficiaries. (…) We paid KES 1.000 each but he never showed up again.'[20] When asked about the possibility of falling prey to such situations in the future, he responded in the affirmative: 'I sent many application forms to the Machakos County offices, but I was later told to send the forms again to Nairobi. I don't know what to do. (…) I think assistance from those in the city [electricity brokers] will be helpful.'[21] Thirteen households claimed to have gained grid connections without paying bribes because they were part of the first groups selected for electrification initiatives. Nonetheless, some admitted offering "gifts" to officials to express their appreciation.

This does not imply that decentralised self-organised solar PV systems is a straightforward remedy to corruption in the electricity sector. Many households used plug-and-play solar PV systems (8 to 20 Watts) by a private company: M-KOPA,[22] accessed through instalment payment mechanisms. M-KOPA customers pay between KES 50 and 125 per day for approximately 400 days before owning the systems. This translates into a monthly tariff range of KES 1.500 to 3.750, meanwhile the average grid electricity tariffs for low-income groups seldom exceeds KES 500 per month. Some middle-class households had installed 100-Watt solar PV systems at the cost of KES 50.000 but poorer households who cannot afford

20. Fieldwork interviews, August 2018.
21. Fieldwork interviews, August 2018.
22. A solar energy company providing off-grid solar PV electrification services to rural locations in Kenya, Tanzania and Uganda.

the high initial costs of the system had no alternative but to use the M-KOPA instalment arrangement.

Moreover, although the ERC has regulations guiding the issuance of licences to solar PV technicians, the services of licensed technicians are usually too expensive for poorer households. Many low-income groups therefore often employ "quack" solar energy technicians who impersonate licensed technicians but offer affordable technical services. Some might assume that decentralised solar PV systems reduce the incidence of electricity sector corruption. On the contrary, the high price of such systems in Kenya has resulted in the illicit use of unlicensed technicians to install them.

Moving beyond conventional anti-corruption approaches

Many anti-corruption interventions occur when the corrupt practice has already happened, or assume the existence of incorruptible principals who set and enforce non-corrupt "rules of the game." Sector reforms can, however, be deliberately crafted to undermine the effectiveness of conventional anti-corruption approaches. This makes efforts to monitor and sanction corrupt behaviour less effective. Marquette and Pfeiffer (2018) in particular have argued that understanding how corruption serves those who engage in it is an important first step in remedying the problem.

Our evidence from Kenya's electricity sector largely supports Marquette and Pfeiffer's (2018) point-of-view. Corrupt practices in the procurement of electricity have, in general, been linked to poor monitoring of contractors in mass electrification programmes.[23] In Kenya, pre-paid metering systems and sanctions following power theft, payment defaulting, and transformer vandalism, have produced quite good results. Yet, grid electricity expansion initiatives in Kenya's periphery have created several safe havens for corrupt practices. Setting ambitious grid connection targets without carefully planning for the availability of qualified engineers and contractors created avenues for opportunistic officials to become tenderpreneurs.

23. Lee et al. (2017).

Moreover, setting confusing eligibility criteria for subsidised electrification schemes, with a lack of clarity on fees and application process duration, opened up spaces for households to bribe public officials, technicians, and contractors, on the one hand, and for officials and private actors to extract bribes from residents, on the other.

To us, it is obvious that proactive measures such as educating the public about grid connection modalities, removing bureauractic bottlenecks in application processes, and speeding up grid application processes, could all have discouraged corruption in Kenya's electricity market. Instead, we observe that a lack of detailed planning together with problems in accessing subsidised initiatives, led to people perceiving and using corruption as a problem-solver for expediting their much-needed grid connections.

Methodology

We draw on fieldwork during 2017–2018 among peripheral and peri-urban Kenyan households to investigate:

- The challenges to efficient grid electricity provision;
- The motivations for some households to engage in bribery to access grid electricity;
- Anti-corruption policies that may address these circumstances.

The households studied were sampled after a preliminary study of nine counties (out of 47) in Kenya and fieldwork covered 50 households in total. Households using solar PV systems alone, grid electricity alone, or using a combination of both, were sampled – in addition to households seeking grid electricity connections.

References

Barnes, D. F. and Floor, W. M. 1996. Rural energy in developing countries: A challenge for economic development. Annual Review of Energy and the Environment 21(1):497–530.

Boamah, F. 2018. Weakening state capacity or complementing its role? Self-organisation of electricity provision and infrastructural power of the state in Kenya's periphery. A paper presented in the Energy in Africa Seminar Series at the University of Bayreuth.

Degani, M. 2017. Modal reasoning in Dar es Salaam's power network. American Ethnologist. 44 (3): 300-3014.

Estache A., Goicoechea, A., Trujillo, L. 2006. Utilities reforms and corruption in developing countries. World Bank Policy Research Working Paper 4081.

Lee, K., Miguel, E. and Wolfram, C. 2017. The economics of rural electrification. Evidence from Kenya. International Growth Center. Policy Brief No. 89339.

Marquette, H. and Pfeiffer, C. 2018. Grappling with the "real politics" of systemic corruption: Theoretical debates versus 'real-world' functions.Governance. Vol. 31. Issue 3.

Mathenge, O. 2018. Audit reveals massive irregularities at Kenya Power as MD vows action. The Star.25 May.

Ogemba, P.O. and Korir, A. 2018. Kenya Power top managers face prosecution over Sh759 million fraud. Standard. 17 July.

Parshall, L., Pillai, D, Mohan, S., Sanoh, A. and Modi. V. 2009. National electricity planning in settings with low pre-existing grid coverage: Development of a spatial model and case study of Kenya. Energy Policy. Vol. 37. Issue 6.

Piper, L. and Charman, A. 2018. Tenderpreneur (also tenderpreneurship and tenderpreneurs). In: The Global Informality Project. UCL Press, pp. 1-6.

Pless, J. 2014. Bribes, bureaucracies, and blackouts: Towards understanding how corruption impacts the quality of electricity supply to end-users in transition and developing economies.Submission for the Dennis J. O'Brien USAEE/IAEE Best Student Paper Award.

Trotter, P.A. 2016. Rural electrification, electrification inequality and democratic institutions in sub-Saharan Africa. Energy for Sustainable Development 34:111–129.

Williams, A. and Le Billon, P. (Eds). 2017. Corruption, natural resources and development.From Resource curse to political ecology. Edward Elgar Publishing.

Winther, T., Ulsrud, K. and Saini, A. 2018. Solar powered electricity access: Implications for women's empowerment in rural Kenya. Energy Research and Social Science44: 61– 74.

World Bank. 2009. Reducing technical and non-technical losses in the power Sector.

World Bank. 2019. Tracking SDG7. The energy progress report.