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Speak Truth to Power



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In Mathare Settlement, thousands of people run their lives on an electricity grid built from the inside. Mostly, it works — but it carries its own problems and dangers.

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It is around half past ten on a Tuesday, and Juja Road — the main street running along the edge of Mathare — is thick with traffic, as it usually is at this hour. Boda bodas, the motorcycle taxis, thread through every gap they can find. Matatus and Nganyas, the public minibuses, come in every colour and pull over just long enough to drop and collect passengers before rejoining the flow, like cars ducking into a pit stop. Between them, men push carts loaded with water canisters. At first there seems to be a great deal of chaos, yet at second glance there is clear order that runs through this system. The street is lined with shops of every sort; the smell of cooking drifts from food stalls while, a few steps away, welders bend over their work if the power situation allows.

Right in between sits a small salon. Inside, the hair dryers sit idle as the owner keeps them switched off until the current steadies. On weak power they barely turn and a sudden surge can burn them out, a loss she cannot absorb. Sometimes the power doesn't stabilise. With no way of knowing how long an interruption will last and competition never far, some customers don't come back. So she waits, standing at the doorway to observe and talk to other shop owners who are facing the same power issue as she does. Evidence on Roles, Perceptions and Behaviour

"The electricity is the one that is paying my rent. So, most of the time when there's no electricity, I find my door locked by the landlord. I have to abandon the job and find a casual job so that I can get the money and come and pay so that I can return back to my shop."

Mathare is not a story about a place without electricity. Affordable access does remain a concern, but Mathare has electricity. What it does not have is electricity that can be relied on — and for the salon owner, as for many here, that is the difference between working and being locked out of her own shop.

Who runs the system

In Mathare, electricity distribution runs on a mix of formal and informal connections. Outside KPLC's main lines, a shadow grid carries power across the settlement through a dense web of wires — assembled over the years as an adaptation where the formal grid never properly reached. The utility's own lines, by most accounts, serve only one out of ten users here. My co-researcher from Ghetto Foundation and I meet one of the informal connectors, who shows us how his network works. The connection lines run overhead from redistribution points into the narrow alleyways, where a dozen or so households often share a single line. He operates with simple tools and basic equipment. Each day he responds to the faults his customers report, quickly judging whether he can fix the problem himself, whether it needs KPLC, or whether the user simply has to wait it out — collecting his fees from customers as he goes.

The men who keep the informal network running describe it as a business for them and an essential service for everyone else.

"People wake up daily here to economic struggle. So, when you tell someone to go and apply for power at KPLC, it's not a need for them."

He has a point and it's mostly about money and paper. Applying for a legal meter means a long bureaucratic process and documents most residents don't have, owing to land tenure disputes, along with payments that are far from trivial — hurdles that stand between a household and a meter long before the question of reliability even arises. For someone who eats what they earn that day, that is a wall. Accessibility is what matters, and the connectors offer a reasonable alternative: for a fraction of the formal cost, a home or a stall is wired and working the same day. Cheaper, immediate, and sometimes the only power available, it is what most households and businesses now rely on — all the more where the utility has pulled back, as in Kosovo, an area of Mathare where the transformers were removed altogether.

Where it breaks

Unreliable supply is not unique to Nairobi's informal settlements. Disruptions occur across the city, though at different frequencies and intensities. Yet, it appears that in Mathare the hybrid arrangement has quietly worsened the conditions and taken a further toll on people's quality of life. Residents describe recurring, unpredictable power problems that take different forms throughout the day. They are more prevalent in times of high demand when everyone needs power at once and the system is under most strain.

"When it comes to 6, 7, 8pm, everybody is using electricity — some to cook, some to pump water," the connector says. "The electricity is not stable, making the voltage go down. In some instances, if one phase goes down, the other one has a lot of power. It burns your appliances."

In the evening hours is when power quality is usually the lowest and residents face most disruptions. Lights flicker or dim when people cook — a power-hungry coil stove will pull down the supply for neighbouring houses too. Radios and televisions cut in and out, and businesses that manage to keep working are constantly interrupted. The connector traces the interruption chain the way someone does who has seen it many times.

"You're overloading the fuse, the fuse burns, it burns the cable. The transformer will have a fault, and it takes the fault back to the main line and disconnects the power."

Of the several ways that power is disrupted, blackouts are the most visible failure as darkness is what everyone notices — some last minutes, others stretch to weeks or months when an overloaded transformer waits on the utility for repair. There is little to do but wait. "We just wait," one resident says. "We have to wait for them to come until they come." In the meantime, residents stay without electricity and need to resort to alternatives. But the quieter faults do their own damage: dimmed and flickering lights, steady low power, and sudden surges draw far less attention, yet bring problems of their own. For example, a sudden power spike kills light bulbs, fridges, radios, phones — whatever happens to be plugged in. Often, they happen when the load piles on, for example, after a blackout when the system demands a lot of current at once.

These disruptions ripple through daily life; they interrupt everyday activities, eat into incomes, and pile on additional upfront costs such as damaged appliances and alternative energy sources. Above all, they force constant adaptation and flexibility. Some residents actively learn to time their activities to when the current is strong, and most fall back on candles and back-up connections or generators to get through the dark hours. A laundry business owner mentions:

"During the day I'm in a rush and during the evening hours I just do the light work like ironing that doesn't use much power."

Every business runs at the mercy of the supply. This ranges from food vendors who lose refrigeration to scrap-metal shops whose machines need steady power to work at all. When the electricity fails, work slows or stops, and the losses cascade: income dries up, bills go unpaid, and services are cut.

Living with it

When power is disrupted, often the only option is to wait for it to stabilise. In the meantime, life adjusts around the current.

"We just adapt," one resident says. "Sometimes you can't charge your phone or see properly. You use candles or solar lamps."

But adapting has its own economy and its own risks. Candles are expensive — everyone needs them and the cost accumulates. If money isn't there, people sit in the dark. An alternative to light houses is to use phone torches, but this dries the phone battery quicker and using a service to charge it brings additional fees and effort. In Kenya, everyday payments are also typically made through M-Pesa, a mobile-money service.

If used, candles can be a hazard of their own as residents mention that fires caused by open flames left burning through a blackout are relatively common. Others start in the wiring itself. "Fires are common due to illegal connections," one resident says — a danger built into how the network is put together, where safer wiring costs more and suppliers connect too many households to one line to maximise profit. It is not abstract.

"Recently there was a fire outbreak in Huruma due to illegal power connection," a resident recalls. "Not only in Huruma — also here in the Outreach area, in Mathare Number 10."

When a fire breaks out, the settlement's own geometry turns against it as firefighters cannot reach the place due to heavy traffic on Juja Road, or because the trucks don't pass through the smaller alley ways. So, on top of all reasons to keep a phone charged, it is also what people use to pay for daily necessities. The darkness also brings other dangers and fears.

"When there is a blackout, crime is very high. It's an advantage for the youth to operate in the dark. They also destroy the streetlamps."

Why it stays this way

By residents' accounts, the distribution infrastructure in Mathare has been retreating rather than expanding; transformers have been pulled out of neighbourhoods even as the population and the settlement keep growing. Parts of the old infrastructure remain as remnants of past days, but the connections that used to sustain residents have been cut.

"There used to be more transformers, but some have been taken away by Kenya Power."

As demand rises and formal capacity falls, the gap widens further and the shadow grid expands to fill it — carrying its ingenuity, its limits and its dangers with it. None of this reflects a preference. Residents are not weighing the shadow grid against reliable formal power and choosing the shadow grid; for most, formal power has never been a real option. Given a supply that was affordable and dependable, residents say, they would prefer it. What they have instead is a system they manage rather than a formal supply that reaches only a few.

Attempts to change that have mostly missed as they arrived over people's heads and left no roots for lack of public participation. What residents return to is not a demand for rescue but a condition for it. Solutions must address the realities of the place: the social, economic and everyday conditions only the people living in Mathare fully grasp. The people who keep this grid running every day understand its wiring, its economics and its risks better than any visiting programme does. Any workable solution, they argue, would have to be built with them and the utility together, not handed to them. A fix designed without them repeats the mistake, one built with them has a chance of lasting. Participation, on this view, is not a box to tick on the way to a solution, it is what makes a solution hold.

"Solutions must involve the community. Top-down approaches don't work."

A solution from the people and for the people. Until that happens, the grid keeps its own hours. At the salon this means that the owner goes on switching her dryers off and on with the current — working when it holds, waiting at the doorway when it doesn't, like everyone else on the lane.

How this was reported

This article draws on interviews with residents, business owners and informal electricity connectors in Mathare, conducted with a co-researcher from Ghetto Foundation. All sources are anonymized. Accounts of specific incidents were corroborated where possible. Descriptions of how institutions and officials operate reflect residents' own experiences and perceptions.