



Kenyans applaud government on electricity provision, but many rural and poor households still lack access to the grid

Afrobarometer Dispatch No. 892 | Eric Otu Beecham and Daniel Iberi

Summary

Kenya has taken substantial steps to increase access to electricity over the past two decades, in line with the Sustainable Development Goal (SDG) of attaining universal access to “affordable, reliable, sustainable, and modern energy” by 2030. Official estimates say Kenya’s electrification rate has doubled since 2013, reaching 75% in 2022 (International Energy Agency, 2024; COMESA, 2021; World Bank, 2018, 2024).

In the 2021 Electricity Regulatory Index report from the African Development Bank (2021), Kenya was ranked second in Africa, behind Uganda, for its robust electricity regulatory regime encouraging connectivity across the country. Kenya’s progress toward universal electricity access significantly bolsters its efforts to realise Kenya Vision 2030, a development plan focused on improving living standards for all Kenyans (Government of Kenya, 2007).

Beyond energy regulation and connectivity, Kenya is also a leader in developing a diversified power generation mix. More than 90% of Kenya’s electricity is sourced from hydroelectric, geothermal, and other renewable energy sources (Reuters, 2019; Economist Intelligence, 2023). With European Commission support, Kenya unveiled a Green Hydrogen Strategy and Roadmap at the Africa Climate Summit in Nairobi in 2023, an initiative that seeks to boost Kenya’s prospects of building a green economy and positioning itself as a front-runner in global energy transformation (European Commission, 2023; Kenya Ministry of Energy and Petroleum, 2024).

Despite these milestones, Kenya still faces challenges in guaranteeing affordable and reliable access to electricity in the face of growing energy demand triggered by rapid urbanisation and population growth (Institute of Economic Affairs, 2023). Ensuring access to electricity in certain rural regions also presents difficulties, including the high cost of extending the grid to remote, sparsely populated areas lacking roads and transmission lines.

Kenya Power and Lighting Co. (KPLC), the country’s main distributor of electricity, and the Energy and Petroleum Regulatory Authority have also been accused of high energy pricing, poor reliability, weak internal governance structures, and corruption (Muthoni, 2023).

Findings from the most recent Afrobarometer survey reveal that while most Kenyans live in areas served by the national electric grid, a significant share – especially among rural and economically disadvantaged citizens – remain unconnected, and fewer than half enjoy a reliable supply of electricity from the national grid.

A majority of Kenyans applaud the government’s performance on electricity provision, although approval has declined since 2022. A majority also say the government should invest in wind and solar power for electricity generation.

Afrobarometer surveys

Afrobarometer is a pan-African, non-partisan survey research network that provides reliable data on African experiences and evaluations of democracy, governance, and quality of life. Nine survey rounds in up to 42 countries have been completed since 1999. Round 10 surveys were launched in January 2024. Afrobarometer's national partners conduct face-to-face interviews in the language of the respondent's choice.

The Afrobarometer team in Kenya, led by the Institute for Development Studies at the University of Nairobi, interviewed 2,400 adult Kenyans in April 2024. A sample of this size yields country-level results with a margin of error of +/-2 percentage points at a 95% confidence level. Previous Afrobarometer surveys have been conducted in Kenya in 2003, 2005, 2008, 2011, 2014, 2016, 2019, and 2021.

Key findings

- Almost nine out of 10 Kenyans (87%) live in zones served by the national electric grid.
 - Rural residents, the poor, and less educated citizens have significantly more limited access to the electric grid than urban, well-off, and more educated respondents.
- Almost four in 10 citizens (36%) live in households that are not connected to the national electric grid.
- Among those who are connected to the grid, 74% say their electricity works "most" or "all" of the time.
- Combining connection and reliability rates, not quite half (47%) of all Kenyans enjoy a reliable supply of electricity from the national grid, with lower rates among rural residents (35%) and economically disadvantaged respondents (35%).
- More than four in 10 Kenyans (42%) say their households use electric power from a source other than the Kenya Power and Lighting Co. grid, in most cases (95%) solar panels.
- Almost six in 10 citizens (57%) say the government is doing a "fairly" or "very" good job of providing a reliable supply of electricity, though approval has declined by 7 percentage points since 2022.
- A majority (62%) of Kenyans support government investment in wind and solar technologies for electricity generation, even if it leads to higher prices for electricity.

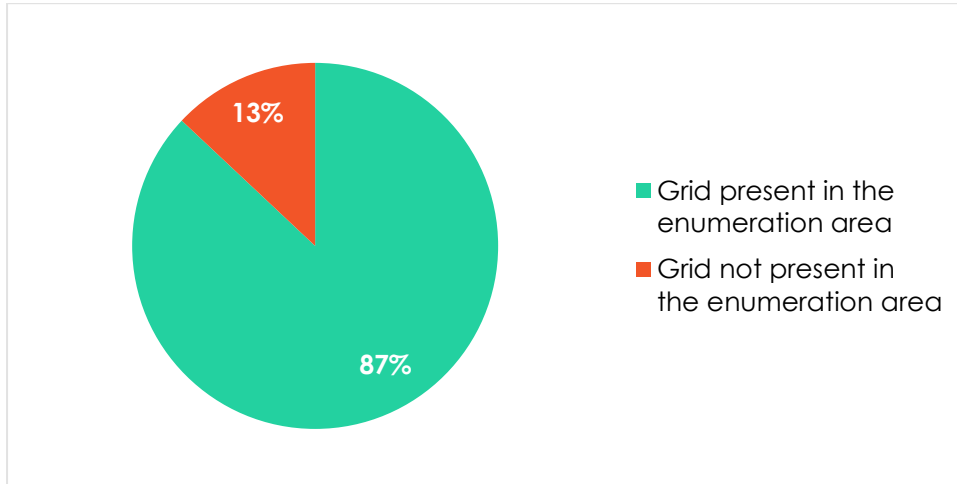
Access to the electric grid

According to Afrobarometer 2024 survey findings, almost nine out of 10 Kenyans (87%) reside in areas served by the national electricity grid¹ (Figure 1).

¹ Afrobarometer samples are based on a selection of enumeration areas (EAs) drawn randomly from the national census frame. Eight interviews are conducted in each selected EA, so for a sample of 2,400 respondents, interview teams visit 300 EAs. In each EA, the team records the presence or absence of basic services, such as electricity supply, and infrastructure, such as schools. Because of the smaller sample sizes, the margin of error on the figures reported here for presence of an electric grid is higher than for findings captured in individual interviews.

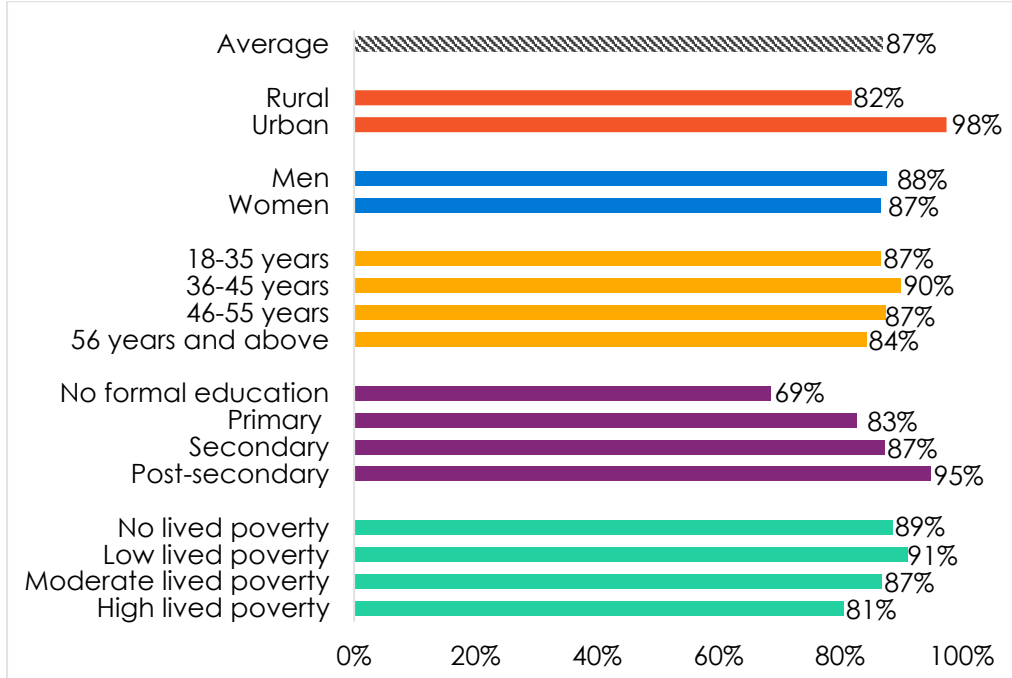
The presence of the national grid is more limited in rural areas than in cities (82% vs. 98%) (Figure 2). Respondents with no formal education (69%) and those experiencing high levels of lived poverty² (81%) are also less likely to live within reach of the grid than their more educated and better-off counterparts.

Figure 1: Presence of electricity grid | Kenya | 2024



Survey enumerators were asked to record: Are the following services present in the primary sampling unit/enumeration area: Electricity grid that most houses can access?

Figure 2: Presence of electricity grid | by demographic group | Kenya | 2024



Survey enumerators were asked to record: Are the following services present in the primary sampling unit/enumeration area: Electricity grid that most houses can access? (% "yes")

² Afrobarometer's Lived Poverty Index (LPI) measures respondents' levels of material deprivation by asking how often they or their families went without basic necessities (enough food, enough water, medical care, enough cooking fuel, and a cash income) during the past year. For more on lived poverty, see Mattes and Patel (2022).

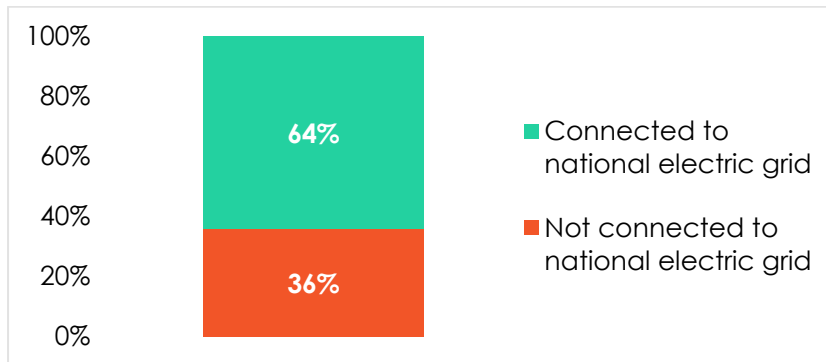
Connection to the electric grid

Living in a zone served by an electricity grid does not, of course, guarantee a supply of electricity. Costs associated with service from the power grid – including fees for inspection, house wiring, and connection – may present prohibitive hurdles for many citizens.

Survey findings show that almost two-thirds (64%) of respondents live in households that are connected to the KPLC grid, while 36% are not connected to the grid (Figure 3).

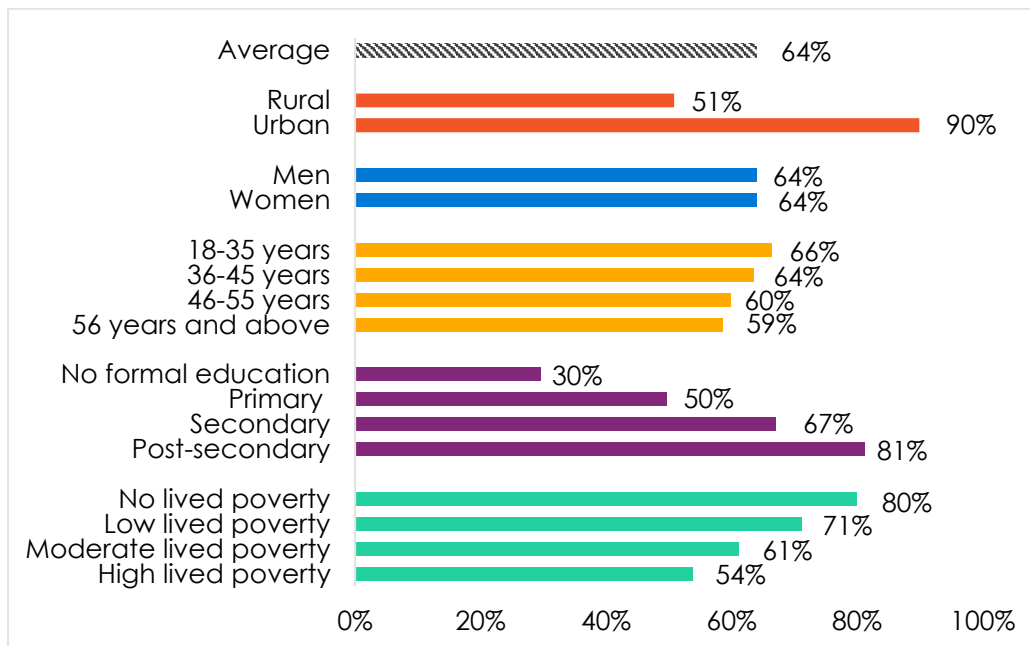
Deficits for rural, less educated, and poor citizens are even larger for connectivity than for proximity to the grid (Figure 4). Only half (51%) of rural residents enjoy a KPLC connection, compared to 90% of urbanites. Among citizens without formal schooling, only 30% are connected, vs. 81% of those with post-secondary qualifications. And 26 percentage points separate the poorest from the best-off respondents when it comes to connection to the grid.

Figure 3: Connection to the national electric grid | Kenya | 2024



Respondents were asked: Do you have an electric connection to your home from the Kenya Power and Lighting Co. Ltd. or KPLC?

Figure 4: Connection to the national electric grid | by demographic group | Kenya | 2024



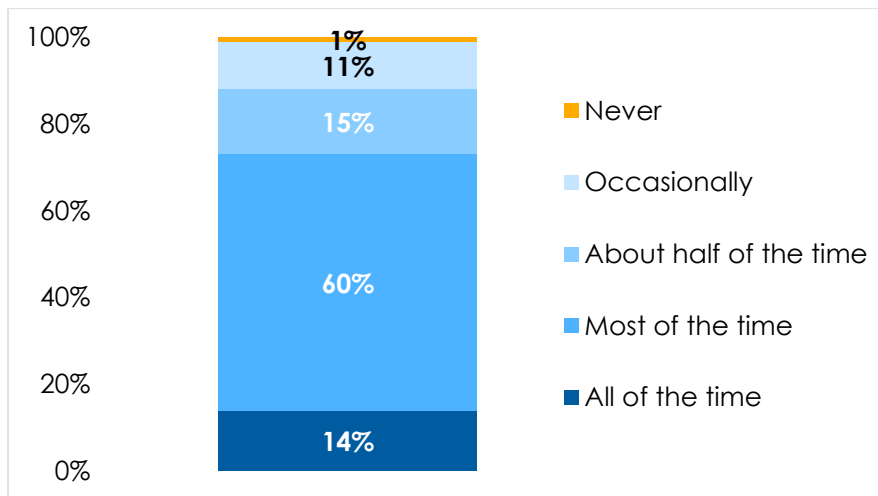
Respondents were asked: Do you have an electric connection to your home from the Kenya Power and Lighting Co. Ltd. or KPLC? (% "yes")

Reliable supply of electricity

Even if houses are connected to an electric grid, the reliability of their power supply may be poor. How many Kenyans actually have reliable electricity?

Among citizens who report being connected to the grid, three-fourths say their electricity works “most of the time” (60%) or “all of the time” (14%), while one-fourth say electricity is available “about half of the time” (15%), “occasionally” (11%), or “never” (1%) (Figure 5).

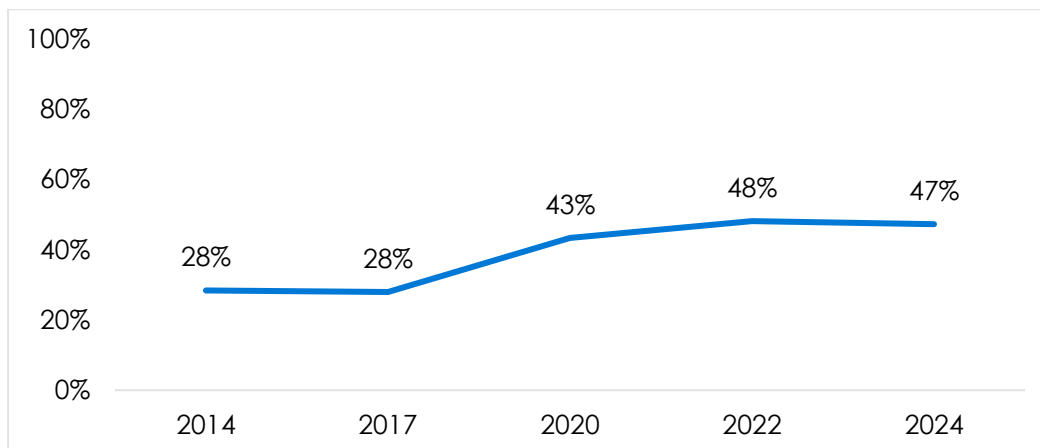
Figure 5: How often is electricity available (for households connected to the grid)?
 | Kenya | 2024



Respondents who said they have a connection to the national electric grid were asked: How often is electricity actually available from this connection? (Respondents without a connection to the national grid are excluded.)

Looking at the entire population (rather than only those who are connected to the grid), we see that not quite half (47%) of Kenyans report having electricity from the national grid that works “most” or “all” of the time. The share of households with reliable electricity has increased by 19 percentage points over the past decade (Figure 6).

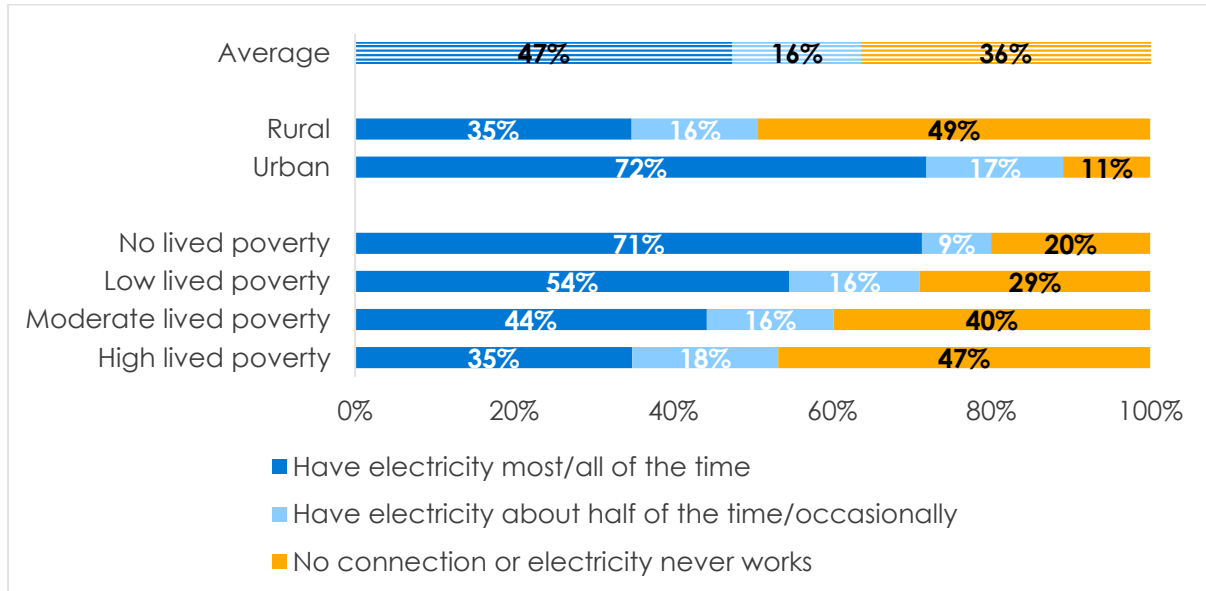
Figure 6: How many citizens have reliable electricity? | Kenya | 2014-2024



Respondents were asked: Do you have an electric connection to your home from the Kenya Power and Lighting Co. Ltd. or KPLC? (If yes :) How often is electricity actually available from this connection? (% who say “most of the time” or “all of the time”)

In rural areas, only 35% enjoy a reliable supply of electricity, compared to nearly three-fourths (72%) of urban residents (Figure 7). A similar gap separates the poorest respondents (35%) from the economically well-off (71%).

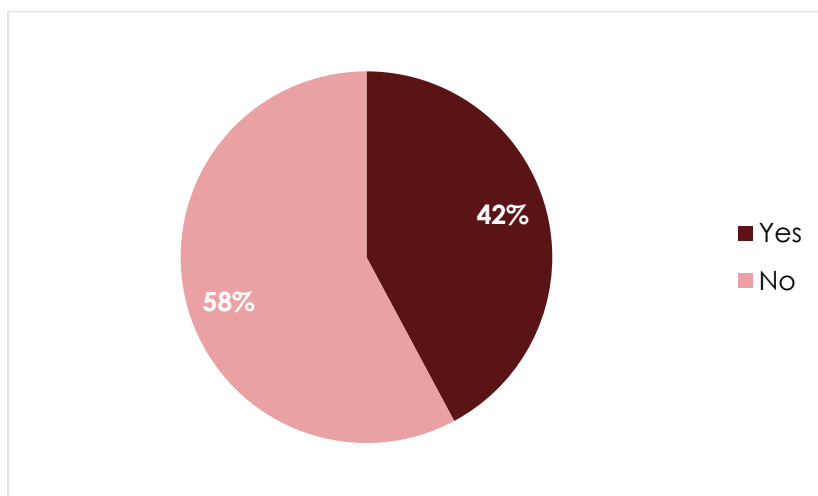
Figure 7: How many citizens have reliable electricity? | by urban-rural location and lived poverty | Kenya | 2022



Respondents were asked: Do you have an electric connection to your home from the Kenya Power and Lighting Company Limited or KPLC? (If "yes" :) How often is electricity actually available from this connection?

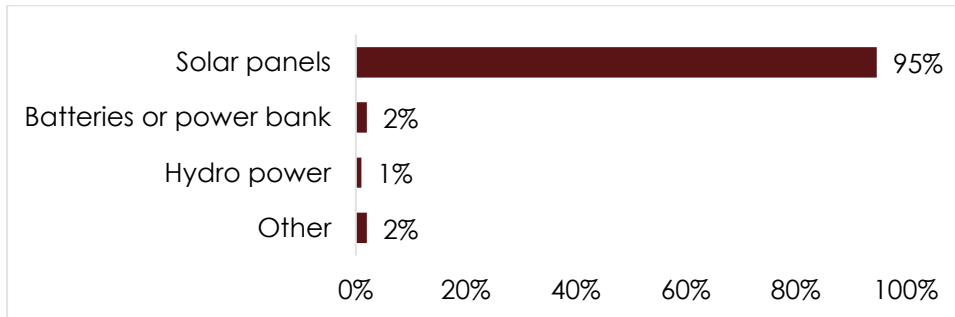
More than four in 10 Kenyans (42%) say their households use electric power from a source other than the Kenya Power and Lighting Co. grid (Figure 8). Among those who use alternative sources of electricity, the overwhelming majority (95%) use solar power, while only a small fraction rely on batteries or power banks (2%), hydro power (1%), or other sources (1%) (Figure 9).

Figure 8: Use of alternative sources of electric power | Kenya | 2024



Respondents were asked: Does your house use electric power from any source other than the Kenya Power and Lighting Co. or KPLC grid?

Figure 9: Alternative sources of electric power | among respondents using off-grid electricity | Kenya | 2024

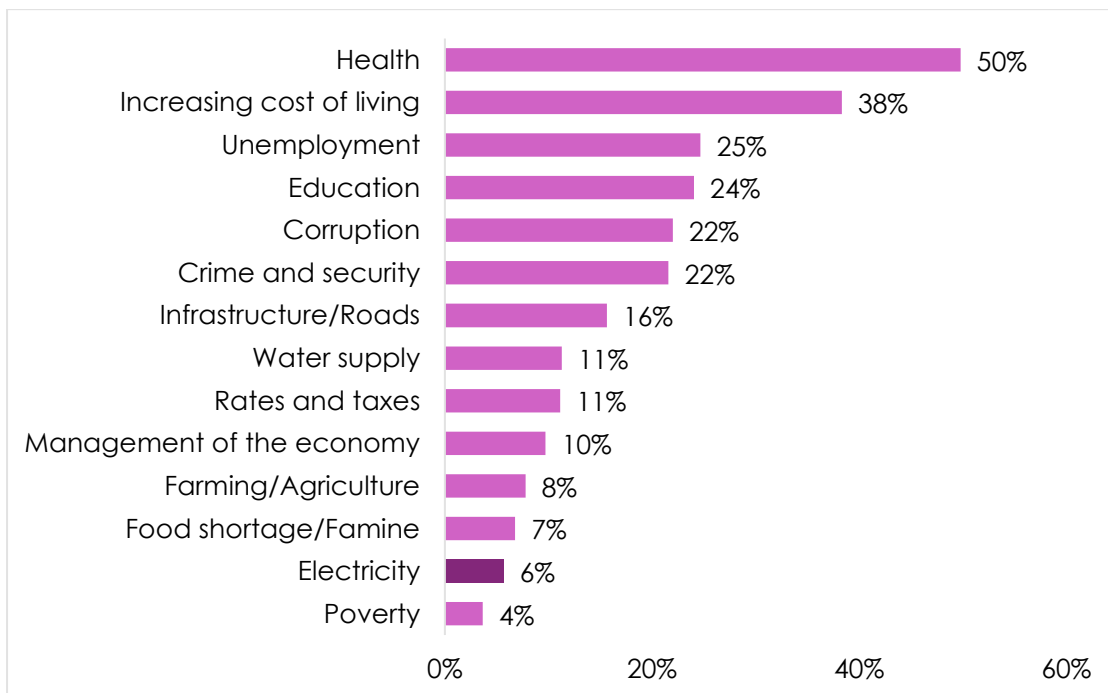


Respondents who say their house uses electric power from a source other than the Kenya Power and Lighting Co. were asked: What is the source of electricity for this connection?

Priorities and government performance

Perhaps reflecting Kenya's success at increasing electrification, electricity does not rank among citizens' top priorities for urgent government action. Only 6% of respondents cite electricity as one of up to three important problems they want their government to address, placing it 13th on the list, well behind the top priorities of health (50%), the increasing cost of living (38%), and unemployment (25%) (Figure 10).

Figure 10: Most important problems | Kenya | 2024



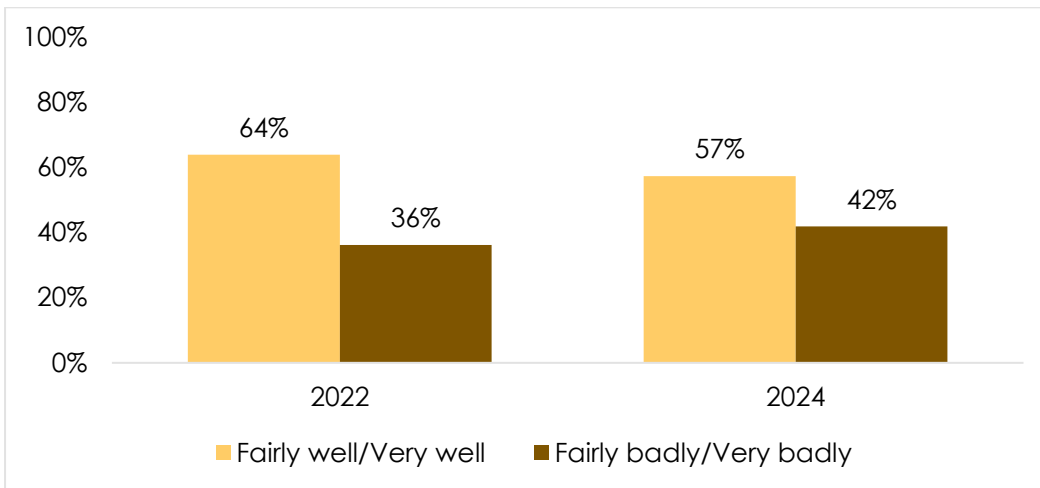
Respondents were asked: In your opinion, what are the most important problems facing this country that government should address? (Up to three responses per person; figure shows percentage of respondents who cite each problem as one of up to three priorities.)

A majority (57%) of citizens say the government is doing "fairly well" or "very well" at providing a reliable electricity supply, down from 64% approval in 2022. About four in 10 (42%) say it is doing a poor job (Figure 11).

Satisfaction with the government's performance increases with respondents' economic status, ranging from 49% of the poorest to 66% of the best-off (Figure 12). It also rises with respondents' educational status, from just 40% of those with no formal schooling to 64% of those with post-secondary qualifications.

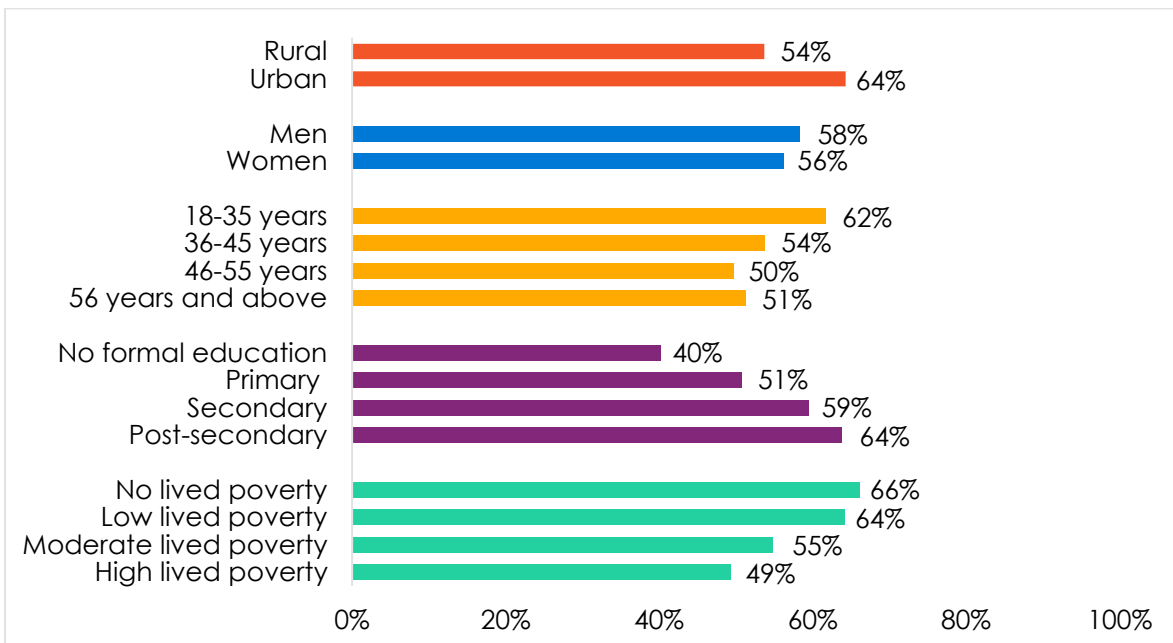
The youngest citizens (62%) are more likely to approve of the government's efforts on electricity than their elders (50%-54%), as are urbanites compared to rural residents (64% vs. 54%).

Figure 11: Government performance on provision of reliable electricity supply
| Kenya | 2022-2024



Respondents were asked: How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say: Providing a reliable supply of electricity?

Figure 12: Government is performing well in the provision of reliable electricity supply
| Kenya | 2022



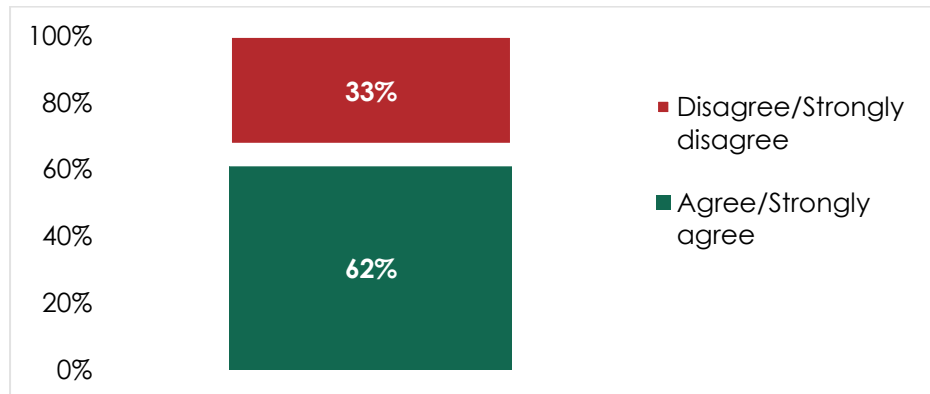
Respondents were asked: How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say: Providing a reliable supply of electricity? (% who say "fairly well" or "very well")

Should the government invest in wind and solar technologies?

Looking ahead, a majority (62%) of Kenyans say the government should invest in wind and solar technologies for electricity generation, even if it leads to higher prices for electricity (Figure 13).

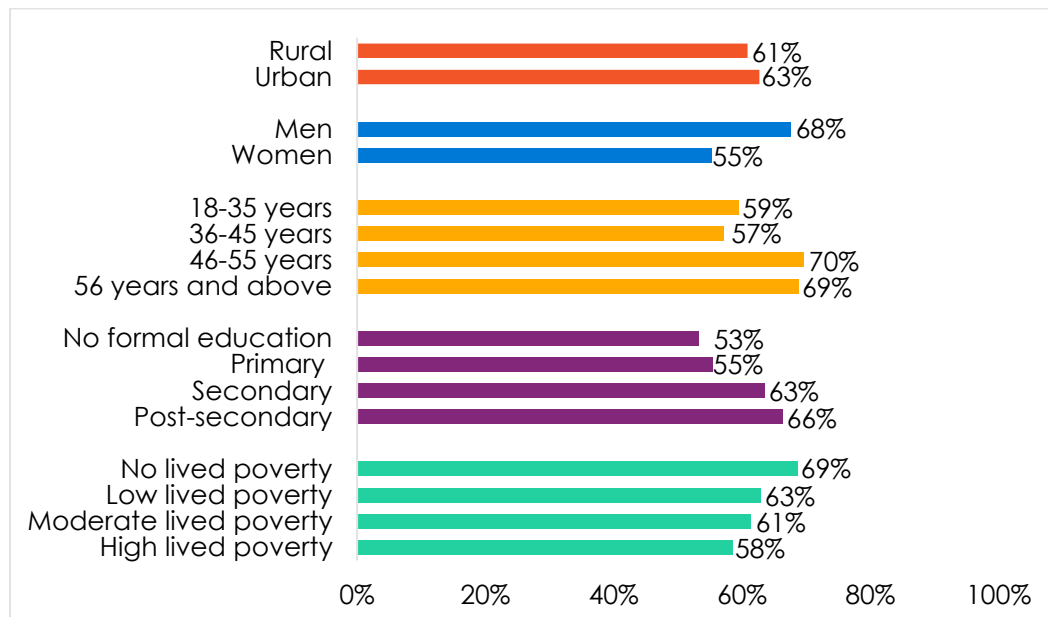
Older respondents (69%-70%) show stronger support for investment in wind and solar power than younger ones (57%-59%), as do men compared to women (68% vs. 55%) (Figure 14). Support increases with respondents' education and economic status, reaching 66% among those with post-secondary education and 69% among well-off citizens.

Figure 13: Should government invest in wind and solar technologies to generate electricity? | Kenya | 2024



Respondents were asked: There are many policies that our government could adopt in order to respond to changing weather patterns and environmental degradation. Please tell me whether you disagree or agree with each of the following options: Invest in wind and solar technologies to generate electricity, even if it increases the price. (% who say "agree" or "strongly agree")

Figure 14: Government should invest in wind and solar technologies | by demographic group | Kenya | 2024



Respondents were asked: Please tell me whether you disagree or agree with each of the following options: Invest in wind and solar technologies to generate electricity, even if it increases the price. (% who "agree" or "strongly agree")

Conclusion

Survey findings show that while a majority of Kenyans approve of their government's performance on electricity provision, public approval has weakened in recent years. The country's extensive electric grid still leaves more than half of Kenyans without reliable power. Connectivity and reliable service rates are particularly low in rural areas and among economically disadvantaged households – obvious targets for continued government efforts to ensure universal access to electricity.

A majority of Kenyans say the government should invest in wind and solar technologies for electricity provision, even if it might make power more expensive.

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Afrobarometer, a nonprofit corporation with headquarters in Ghana, is a pan-African, nonpartisan research network. Regional coordination of national partners in about 35 countries is provided by the Ghana Center for Democratic Development (CDD-Ghana), the Institute for Justice and Reconciliation (IJR) in South Africa, and the Institute for Development Studies (IDS) at the University of Nairobi in Ethiopia. Michigan State University, the University of Cape Town and the University of Malawi provide technical support to the network.

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