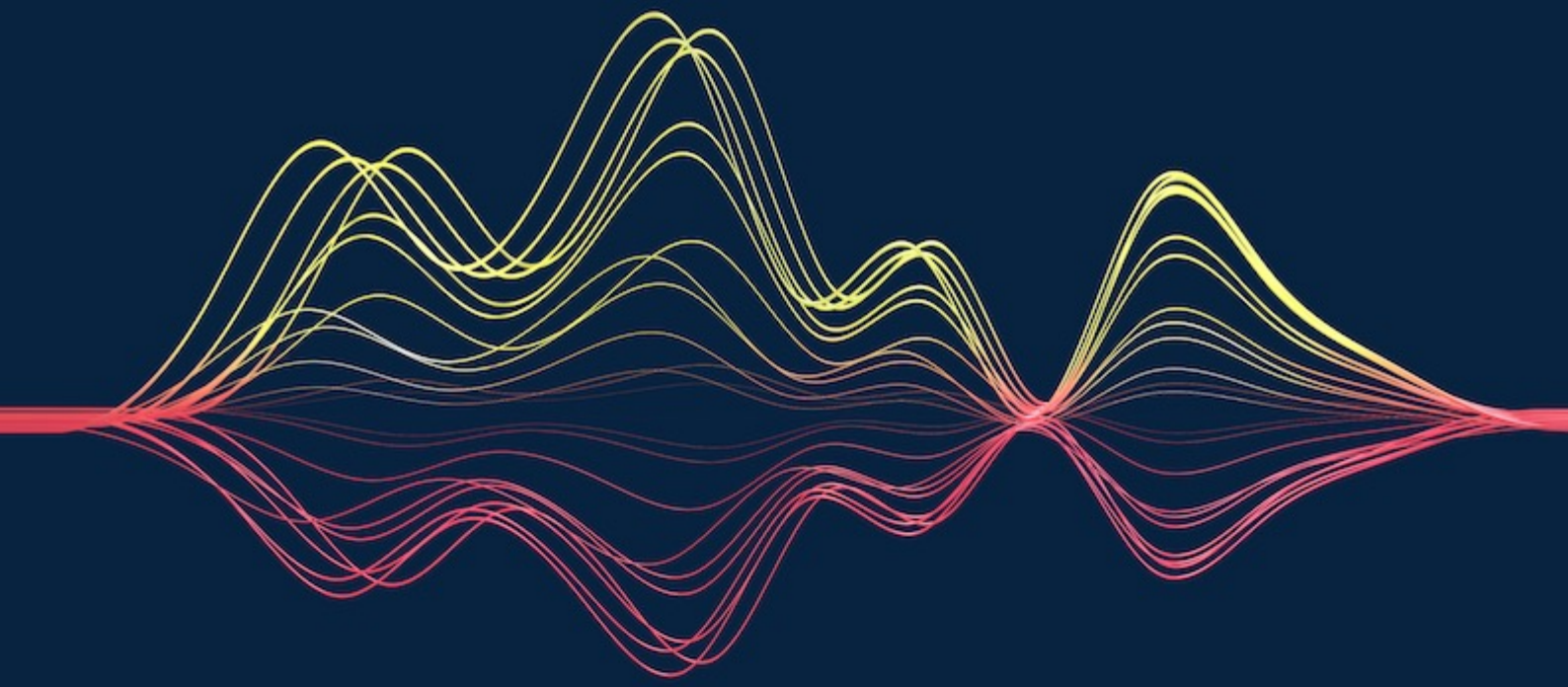
KENYA

# Corporate Power Purchase Agreements



# Kenya

*Last modified 20 February 2025*

## PPA structures and parties involved

### To what extent are corporate PPAs presently deployed and what sort of structure do they take?

Historically, KPLC (Kenya Power and Lighting Company) has provided most of the country's electrical needs, with power being generated by KenGen (a government-backed power generation company) and Independent Power Producers (IPPs) who enter into long-term PPAs with KPLC. KPLC then distributes energy and sells it to retail consumers.

Changes brought in with the Energy Act of 2019 (Energy Act) opened up the power sector by permitting other entities to distribute and transmit power and also allowing for net metering and wheeling of generated power.

Corporate PPAs have recently gained significant traction in Kenya, with many large corporations exploring options for self-generation. Between June 2023 and June 2024 alone, the Energy and Petroleum Regulatory Authority (EPRA) approved 18 solar captive PPAs between independent power producers (IPPs) and various industrial and manufacturing companies.

While some large malls and corporate headquarters in Nairobi have financed and installed solar systems without relying on PPAs, most corporate entities have adopted direct wire/private wire PPAs. Under this model, the generation facility is developed on or adjacent to the corporate offtaker's premises.

Generation of up to 1 MW for "own use" is permitted under the Energy Act without the need for extensive licensing. This makes the approaches highlighted above appealing to corporates who want a simple fix to the rising costs of power in Kenya. Direct wire PPAs also avoid the need to rely on any external party for transmission or distribution, further reducing the potential for administration and bureaucracy.

Virtual PPAs and sleeved PPAs are almost non-existent in Kenya. This could be because the regulatory framework isn't mature /sophisticated enough (see below) and/or because corporate sustainability goals/targets for the use of renewable energy can, in fact, be inadvertently met by reliance on the national grid (79.89% of Kenya's energy is already generated from renewable sources). However, with the introduction of wheeling under the Energy Act, sleeved PPAs are expected to gain traction once the necessary regulations for implementing wheeling are in place.

We expect further development in this area as the Energy Act imposes obligations on designated factories and buildings to conserve energy and assess energy consumption (ss. 188 and 189). PPAs that give corporates the freedom to choose more efficient energy sources may be an attractive solution to some large manufacturers or industrial groups.

### Do the country's regulators allow corporate owners to purchase (1) directly from a facility, or (2) from a choice of suppliers?

Yes. Corporate owners can purchase directly from a facility if the cPPA is approved by EPRA in accordance with section 163 (1) of the Energy Act which provides that "All contracts for the sale of electrical energy as well as provision of transmission and distribution network services, between and among licensees, and between licensees and retailers and eligible consumers shall be submitted to the Authority for approval before execution."

An eligible consumer is a consumer that can choose any licensee to be a supplier and with whom the consumer can contract to buy electrical energy for the consumer's own use, in accordance with regulations made under the Act. A consumer is any person supplied or entitled to be supplied with electrical energy or petroleum.

With respect to suppliers, corporates can also buy power from a choice of suppliers. But in practice the choice of suppliers is usually limited to KPLC. This is likely to change once private entities become more involved in supplying electricity.

### Other than the generator and the off-taker, are any third parties commonly party to the PPA structure (e.g. a utility or other market agent)?

A cPPA is typically entered into between an IPP and a corporate offtaker, with third-party involvement being uncommon at present. However, this is expected to change with the implementation of wheeling, which may necessitate the involvement of KETRACO or KPLC in such agreements.

EPRA has to approve the PPAs but it's not a party to the agreement itself.

### Is a generator permitted to sell electricity directly to an end user? If so, do they require a licence or other form of authorization?

Section 117 of the Energy Act stipulates that anyone wishing to engage in generating, exporting, importing, transmitting, distributing, or retail supplying electricity has to apply for a license from the Authority, in accordance with the provisions of the Act. But no authorization is required for generating electricity for personal use, provided the capacity doesn't exceed 1 MW. Based on this, where a generator intends to sell electricity directly to an end user, the generator should also obtain a retail supply license in addition to the generating license.

It is expected that the proposed Energy (Electric Power Undertaking Licensing) Regulations 2024 will provide more detail on the various categories of licenses provided for in the Energy Act, once established. KenGen (the state-backed generator) has already announced its intention to supply industrial consumers once clear regulations are in place.

## Challenges

### What are some of the technical, political, financial or regulatory challenges to corporations adopting green energy in the short/medium term in your country and how have these challenges been overcome (or how can they be overcome)?

- Green energy sources tend to be intermittent/unreliable such that corporations are rarely able to rely exclusively on a green solution to meet their power needs. This is particularly the case for solar power, which, in the absence of affordable storage facilities, can only provide a solution during daylight hours. Many corporates adopt a hybrid approach and will also explore how to use net-metering to sell back excess supply.
- Most technologies require significant space to be efficiently developed. Unless corporates or generating entities own their premises or land on which to develop a generating plant, corporations and/or generating entities have to lease or acquire the required space. This can be a significant challenge, particularly for foreign-owned corporations. Acquiring land for generating power also requires significant engagement with the local community to ensure the investment/development is well received.
- High upfront costs for most technologies in terms of equipment and personnel. Difficulty with logistics and some supply networks can mean equipment is difficult to maintain, and spares might not be readily available or properly stored.
- The cPPA market is only now opening up in Kenya, and the regulatory controls are untested and somewhat ambiguous. It's seemingly likely that regulatory reform will follow in the next few years as stakeholders interpret the applicable legislation. This uncertain and/or changing regulatory landscape can sometimes make it difficult for corporates to commit to PPAs with substantial terms. Although regulations like the proposed Energy (Electricity Market, Bulk Supply and Open Access) Regulations 2024 have been published for public comment, they still need to be implemented to provide clarity for entities interested in adopting cPPAs.
- Emerging local capacity in the development, operation and maintenance sectors coupled with obligations to develop and use local content.
- Proper enforcement of standards and regulations. Particularly in the solar space, there's a proliferation of sub-standard solar energy technologies and equipment. There's also a lack of availability of affordable power storage solutions.

### Interventions

- For some time, the Kenya Revenue Authority offered tax exemptions for some solar-PV equipment (though this was reviewed in 2020). Permanent exemptions that applied to a wider range of technologies would help in managing the substantial up-front costs.
- KPLC could explore how to use virtual PPAs and sleeved PPAs to increase revenue and maintain market position.
- Regularly reviewing standards for energy technologies and equipment and genuine and consistent enforcement of regulations and standards.
- Implementing programs and initiatives to develop local capacity. Incentives could also be offered to corporates to provide training and /or upskill individuals.

## Regulatory changes

### Are there any anticipated regulatory changes which will alter the regulatory landscape for corporate green energy and corporate PPAs?

As highlighted in other answers, changes to the Energy Act in 2019 mean that energy generators can now obtain distribution licenses, empowering them to increase their offering and sell electricity directly to consumers.

The Energy (Net Metering) Regulations 2024 came into effect on July 18, 2024. These regulations apply to renewable energy technologies with an installed capacity of less than 1 MW. They allow consumers to feed excess power into the grid during low consumption periods and offset the cost of electricity consumed from KPLC with the capacity supplied to the grid.

The draft Energy (Electricity Market, Bulk Supply, and Open Access) Regulations 2024 were published in February 2024 for public comment. While they are yet to be finalized and take effect, these regulations aim to open Kenya's electricity market by ensuring non-discriminatory open access to transmission and distribution systems to enhance competition. These regulations will provide a framework for implementing wheeling, which is likely to result in the uptake of sleeved or wheeled cPPAs.

## Incentives and benefits

### What is the corporate appetite for green energy, including any political or financial incentives available to corporates to adopt green energy?

Various corporates in Kenya are adopting green energy:

- Mumias Sugar Company generates 34 MW of electricity from its bagasse-based co-generation plant.
- Kenya Breweries Limited plans to generate at least 9.3 MW at its Ruaraka plant and 2.4 MW from solar power in Kisumu.
- Kenya Tea Development Agency has set up various hydropower plants throughout the country to reduce the significant energy costs associated with processing and manufacturing tea.

The primary reasons for this growing corporate appetite for green energy solutions include the need to:

- reduce rising operation costs that are largely attributed to rising energy costs;
- improve reliability of power supply;
- increase focus on sustainability and environmental, social and governance (SESG) considerations globally and in Kenya
- obtain new sources of revenue; and
- meet sustainability goals imposed by foreign-owned parent companies.

Beyond the incentives that are generally available in the market (eg tax exemptions for importing solar products), there are no specific incentives being made available to corporates as a means of encouraging the use of green energy.

### What are the key local advantages of the corporate PPA model which can benefit our clients?

The advantages of using cPPAs in Kenya include:

- energy security (particularly reduction of black/brown outs and surges if direct-wire solutions are used);
- discretion to use specific energy sources or exclusively renewable energy as a means of satisfying sustainability goals;
- avoiding high (and increasing) costs of power supply from a state-owned utility and/or passing on the pricing risk;
- for direct-wire solutions, excess power sold back to the grid may create a source of revenue; and
- direct-wire PPAs may be the only means of generating and accessing electricity in some instances as the national transmission network doesn't always cater for very remote connections.

### What subsidies are applicable to the generation and sale of renewable energy?

While many subsidies have been the subject of recent potential revision, there are currently still various tax incentives for involvement in renewable energy, including:

- VAT exemption on specialized equipment for developing and generating solar and wind energy, including deep cycle batteries which use or store solar power;
- VAT exemption on inputs or raw materials supplied to solar equipment manufacturers for manufacturing solar equipment or deep cycle-sealed batteries which exclusively use or store solar power;
- exemption from tax on interests to be paid on loans from foreign sources for investing in the energy sector – pursuant to Legal Notice 91 of 2015;
- exemption from tax on payments made to a non-resident for services rendered under a power purchase agreement – pursuant to Legal Notice 165 of 2015; and
- exemption from payment of stamp duty on instruments executed for loans from foreign sources received by investors in the energy sector.

### Does your country implement a national support scheme with tradable green certificates (such as guarantees of origins)?

Yes. In 2024, the International Tracking Standard Foundation approved Kenya for the issuance of International Renewable Energy Certificates (I-REC) and designated EPRA as the local issuer.

An I-REC serves as a transferable certificate confirming that one megawatt-hour (MWh) of electricity has been generated from renewable sources and fed into the grid. As the local issuer, EPRA is responsible for inspecting energy-generating facilities across the country to verify that electricity is produced from renewable sources. The local implementation of I-RECs is intended to help Kenya meet its international commitments and agreements on clean energy.

## Typical PPA terms and risk allocation

### To the extent corporate PPAs are deployed, how are prices, terms and risks affected?

| Topic | Details |
|---|---|
| **Do prices tend to be floating or fixed?** | **cPPAs:** While there are currently limited examples, for direct wire PPAs, prices tend to be fixed and subject to escalation.<br><br>**PPAs with KPLC:** The tariff applicable per kW/h is fixed, and KPLC is obliged to accept up to a certain capacity for the term of the PPA (take or pay basis). |

| | |
|---|---|
| **What term is typically agreed for the PPAs?** | **cPPAs:** In our experience, generally between 10 to 20 years.<br><br>**PPAs with KPLC:** 20-25 years. |
| **Are the PPAs take-or-pay or limited volume?** | **cPPAs:** Unknown but likely negotiated on a commercial basis.<br><br>**PPAs with KPLC:** Previously always take-or-pay (but there has been movement towards take-and-pay to alleviate the burden on the utility to pay for electricity that's not ultimately used). |
| **Are there any other typical risks?** | **cPPAs:** Unknown but likely negotiated on a commercial basis.<br><br>**PPAs with KPLC:** Political risks are typically accepted by the offtaker and backstopped by the government (but see our note above on parties involved in PPAs). |

## To the extent corporate PPAs are deployed, in whose favour will the risks typically be balanced?

| Type of risk | Details |
|---|---|
| **Volume risk** | CPPAs in Kenya don't currently have a prescribed form, such that a number of these risks can be negotiated on a commercial basis. But as most cPPAs are usually based on fixed volume terms, the generator usually bears the volume risk. |
| **Change in law** | Negotiated on a commercial basis. In some instances, this risk is borne by the offtaker, particularly when the change in law leads to increased costs. |
| **Increase / reduction of benefits** | Negotiated on a commercial basis. In some instances, changes in benefits due to a change in law may be addressed under the change in law clause (see above). |
| **Market liberalisation (if applicable)** | Unknown – in a traditional PPA it would sit with offtaker. |
| **Credit risk** | Due to the private nature of contracts, it's difficult to generalize on this across the Kenyan market. The offtaker under a cPPA may have to provide credit support such as a parent company guarantee to mitigate payment risk. The need for such security typically depends on the offtaker's creditworthiness and may also be influenced by the requirements of the project's financiers. |
| **Imbalance power risk** | Unknown – in a traditional PPA it would sit with offtaker. |
| **Production profile risk** | Unknown and also not covered by traditional PPAs. |

# Balancing

### Does your country operate a balancing responsibility scheme?

No formal scheme is in operation, but there are entities that are responsible for balancing supply and demand.

### If your country operates a balancing responsibility scheme, who is the balancing authority and do the generator and offtaker typically undertake balancing themselves?

Until January 2022, KPLC operated the National System Control Centre (NSCC). EPRA reassigned the role of system operator to the Kenya Electricity Transmission Company Limited (KETRACO) under Section 138 of the Energy Act. As the system operator, KETRACO is now responsible for balancing supply and demand and ensuring the safe transmission of electricity to end users. Notably, KETRACO is developing a new NSCC, which will enable real-time remote monitoring of the power grid and coordination of electricity supply and demand to enhance system safety and reliability.

# Significant transactions

### What significant transactions/deals have taken place in the last 12-18 months?

In 2022, Bamburi Cement signed a PPA with MomNai Energy Limited to develop a 14.5 MW solar plant in Mombasa and a 5 MW solar plant in Nairobi, both located adjacent to its factories. Once completed, these plants are expected to significantly reduce the company's power costs.

Between June 2023 and June 2024, EPRA approved 18 captive power purchase agreements between independent power producers (IPPs) and various corporate entities, including Mombasa Cement Limited (for 10 MW), Mabati Rolling Mills Limited (for 2.5 MW), and Abyssinia Iron and Steel Limited (for 7.8 MW).

## Disclaimer