Session 1: Sustainable finance for sustainable generation
Kenya
Chairs and Panelists

Chairs

Wale Shonibare
AfDB
Director PESR

Vivek Mittal
AfIDA
CEO

Panelists

Eric Mwangi
Min. Energy
Economic
Advisor to
Cabinet
Secretary

Dr John
Mudany
KenGen
Finance
Director

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Voltaia
Bus. Dev.
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Nigeria
Infrastructure
Debt Fund
CEO

Rajeev
Mahajan
Green
Climate
Fund
Head, Project
Finance
Kenya Country Priority Plan: AEMP Roadmap and priority countries

- Undertaken in partnership with the Tony Blair Institute and in consultation with the Kenyan government

- Identified three proposed sessions to take place during AEMP:
  
  A. Sustainable finance for sustainable generation
  
  B. Implementation of Sector Reforms
  
  C. Financially sustainable energy access
Kenya Country Priority Plan: Generation outlook

Policy priorities and challenges

- **Power oversupply**: Power generation capacity and take-or-pay contracts forecast to exceed demand and put KPLC into financial difficulties
- **Plateauing C&I growth**
- **Insufficient demand from newly connected rural domestic customers**

2020 KPLC annual report:

The current take-or-pay pricing model for Power Purchase Agreements (PPAs) factors in fixed capacity charges or deemed energy generation which have been unfavourable to our business in the absence of anticipated demand growth. [...] The Company is [...] engaging the Government to consider reviewing the take-or-pay pricing model for PPAs with Independent Power Producers which results in fixed capacity charges.

Demand growth

<table>
<thead>
<tr>
<th>KPLC sales by customer segment, GWh/y</th>
</tr>
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<tbody>
<tr>
<td>4,104</td>
</tr>
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</thead>
<tbody>
<tr>
<td>GWh consumed in year</td>
<td>4,104</td>
<td>4,266</td>
<td>4,225</td>
<td>4,462</td>
<td>4,308</td>
</tr>
<tr>
<td>% share of total energy consumed</td>
<td>56%</td>
<td>55%</td>
<td>54%</td>
<td>55%</td>
<td>53%</td>
</tr>
<tr>
<td>% growth rate from previous year</td>
<td>4%</td>
<td>-1%</td>
<td>6%</td>
<td>-3%</td>
<td></td>
</tr>
</tbody>
</table>

Source: KPLC, 2020, p.146
Kenya Country Priority Plan: Generation outlook

Report of the Presidential Taskforce on Review of PPAs

The Taskforce recommendations include:

I. **Review and Renegotiations** with IPPs to secure immediate reduction in PPA tariffs within existing contractual arrangements

II. **Cancellation with immediate effect** of all unconcluded PPAs & ensure future PPAs are aligned with the LCPDP

III. **Fast-track [...] reforms at KPLC** to restructure it into a commercial entity that is both profitable & capable of delivering [...] cost-effective electricity supply to consumers

IV. KPLC to ... lead in formulation & PPA procurement of the LCPDP

V. KPLC to institute **Due Diligence & Contract Management** frameworks for PPA procurement and monitoring [...] 

VI. KPLC to institute 1 & 5 year rolling demand & generation forecasts

VII. **KPLC to adopt standard PPAs & proposed Government Letters of Support [...]**

VIII. **KPLC to undertake a forensic audit** on the procurement & system losses arising from the use of HFOs

IX. In line with the constitutional imperative for transparency in the public sector, KPLC’s annual reports should include the names & beneficial ownerships of all IPPs [...]

PPA = Power Purchase Agreement, IPP = Independent Power Producer, LCPDP = Least Cost Power Development Plan, KPLC = Kenya Power & Lighting Company, HFOs = Heavy Fuel Oils
Kenya Country Priority Plan: Generation outlook and demand stimulation

94% of KPLC energy sourced from renewables

- Hydro, geothermal, wind, solar
- Thermal

Source: KPLC, 2020, p.180

Opportunities looking forward

Capital pools for green finance

In 2019, $6.7B was committed to Africa for adaptation; $6.2B for mitigation.

Domestic pension fund capital

According to Kenya’s Retirement Benefits Authority’s Investment Regulations & Policies, Kenyan pension funds can invest up to 10% of their assets into direct infrastructure debt instruments. This is worth >USD 1B across 1,300 Kenyan pension funds.

Sources: OECD, 2021; RBA, 2016; KEFFIC
Contact

Power, Energy, Climate and Green Growth Complex
African Development Bank
CCIA, Avenue Jean Paul II, Plateau 01
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www.afdb.org
Session 2: Full Implementation of Sector Reforms

Kenya
Chairs and Panelists

Chairs

Batchi Baldeh  
AfDB  
Director PESD

Chris Flavin  
Gridworks  
Head of Business Dev.

Panelists

Fernandes Barasa  
KETRACO  
Managing Director

Owen Silavwe  
Copperbelt Energy Company  
Managing Director

Koffi Klousseh  
Africa50  
Managing Director

Dr Geoffrey Mabea  
EREA  
Executive Secretary

Dr Ignacio Perrez-Arriaga  
MIT  
Regulatory expert

Das Subhajyoti  
TATA Power  
Group Head
**Kenya Country Priority Plan: AEMP Roadmap and priority countries**

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Kenya Country Priority Plan: Transmission and Distribution Outlook

Transmission & distribution progress

Kenya Power, total losses 2012/13 to 2019/20 (%)

- **T&D losses**: Growing, c.2,700GWh system losses FY June 2020, c.9% beyond what regulator allows KPLC to pass on to customer bills

- **Incomplete transmission infrastructure**: Hold-ups are preventing increased electricity quality

- **Power trading yet to take off**: Trading could help Kenya balance Variable renewables, and realise revenue for the use of generation and transmission capacity but it is yet to advance.

Sources: Mercados-Aries International, 2021; KPLC, 2020, p.151; triangulated with EPRA that these figures include KETRACO infrastructure
### Kenya Country Priority Plan: Transmission and Distribution Outlook

#### Opportunities
- Complete unbundling of KPLC
- Generate revenues from wheeling
- Generate revenues from co-location
- Involve private developers in transmission infrastructure

#### Desired outputs
- Clearer delineation in planning and operations
- Financial sustainability
- Reduced delivery times of transmission infrastructure
- Export power and assist in transitions to net zero in neighbouring countries

#### Desired outcomes
- Efficient supply of high quality, cheaply produced power to Kenyan households and businesses
- Reduced carbon footprint of energy generation in the region
- Increase climate resilience between power trading partners that use hydropower
Contact

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www.afdb.org
Session 3: Financially sustainable energy access

Kenya
Chairs and Panelists

**Chairs**

Daniel Schroth  
AfDB  
Ag Director  
PERN

Michael Jordan  
Power Africa,  
USAID  
Senior Advisor

**Panelists**

Paul Mbuthi  
Min. Energy  
Deputy Director of Renewable Energy

Daniel Kiptoo  
Energy & Petroleum Regulatory Authority  
Director General

Jessica Stephens  
Africa Mini-grid Developers Association  
CEO

Joseph Nganga  
Rockefeller Foundation  
Executive Director
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Kenya Country Priority Plan: Electrification Outlook

Electricity access progress

Policy priorities

• **Universal electricity access:** Despite rapid progress made, about a quarter of the population are still without access.

• **Financial stress on KPLC:** Newly connected customers represent a financial burden for KPLC due to connection costs and low consumption.

• **Investor uncertainty for off-grid:** “Grid extension plans are not public or not followed”

Sources: KPLC, 2020, p.149; World Bank, 2021
Kenya Country Priority Plan: Electrification Outlook

**Energy Act 2019 and county plans**

**Energy Act 2019, Part II, S.5**

- County governments to develop energy plans, to be integrated into the national energy plan by the MoE
- To take into account ‘all viable energy supply options’
- To guide selection of the appropriate technology to meet energy demand

**Report of the Presidential Taskforce on Review of PPAs**

The President has considered the Report of the Taskforce and notes [...] the lack of proper demand forecasting and planning [...] 

The Taskforce recommend[s...] restructur[ing KPLC] into a commercial entity that is both profitable and also capable of delivering efficient and cost-effective electricity to all consumers
Kenya Country Priority Plan: Generation outlook and demand stimulation

Opportunities looking forward

- Mobilise productive uses

- Mobilise private capital for decentralised power

- Strengthen county-level energy planning for on vs off-grid provision, increase transparency
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