Session 1: Sustainable finance for sustainable generation
Kenya
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>Year</th>
<th>Domestic</th>
<th>Small commercial</th>
<th>Commercial and industrial</th>
<th>Off-peak</th>
<th>Street lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>4,104</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016/17</td>
<td>4,266</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017/18</td>
<td>4,225</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2018/19</td>
<td>4,462</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2019/20</td>
<td>4,308</td>
<td></td>
<td></td>
<td></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:

<table>
<thead>
<tr>
<th>I. Review and Renegotiations</th>
<th>Review and Renegotiations with IPPs to secure immediate reduction in PPA tariffs within existing contractual arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Cancellation with immediate effect</td>
<td>Cancellation with immediate effect of all unconcluded PPAs &amp; ensure future PPAs are aligned with the LCPDP</td>
</tr>
<tr>
<td>III. Fast-track [...] reforms at KPLC</td>
<td>Fast-track [...] reforms at KPLC to restructure it into a commercial entity that is both profitable &amp; capable of delivering [...] cost-effective electricity supply to consumers</td>
</tr>
<tr>
<td>IV. KPLC to ... lead</td>
<td>KPLC to ... lead in formulation &amp; PPA procurement of the LCPDP</td>
</tr>
<tr>
<td>V. KPLC to institute</td>
<td>KPLC to institute Due Diligence &amp; Contract Management frameworks for PPA procurement and monitoring [...]</td>
</tr>
<tr>
<td>VI. KPLC to institute</td>
<td>KPLC to institute 1 &amp; 5 year rolling demand &amp; generation forecasts</td>
</tr>
<tr>
<td>VII. KPLC to adopt standard</td>
<td>KPLC to adopt standard PPAs &amp; proposed Government Letters of Support [...]</td>
</tr>
<tr>
<td>VIII. KPLC to undertake</td>
<td>KPLC to undertake a forensic audit on the procurement &amp; system losses arising from the use of HFOs</td>
</tr>
<tr>
<td>IX. In line with the</td>
<td>In line with the constitutional imperative for transparency in the public sector, KPLC’s annual reports should include the names &amp; beneficial ownerships of all IPPs [...]</td>
</tr>
</tbody>
</table>

**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: 94%
- Thermal: 6%

*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; KEPFIC*
Contact

Power, Energy, Climate and Green Growth Complex
African Development Bank
CCIA, Avenue Jean Paul II, Plateau 01
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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 Subhaivoti
  TATA Consultants
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Kenya Country Priority Plan: Transmission and Distribution Outlook

**Policy priorities and challenges**

- **T&D losses:** Growing, and cost KPLC KSH 16B in revenues in 2020.

- **Incomplete transmission infrastructure:** Holdups are preventing increased electricity quality and reduced costs.

- **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.

**Transmission & distribution progress**

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

*Transmission and distribution line lengths in kilometres, FY 2014/15-2019/20*

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 for transmission

• Complete the unbundling of KPLC to allow for clearer delineation in planning and operations
• Involvement of private developers in transmission infrastructure
• Export power and assist in transitions to net zero in neighbouring countries
• Generate revenues from wheeling
• Generate revenues from co-location

Desired outcomes

• Reduced delivery times of transmission infrastructure
• Efficient supply of high quality, cheap power to Kenyan households and businesses
• Reduced carbon footprint of energy generation in the region
Contact

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Session 3: Financially sustainable energy access
Kenya
Kenya Country Priority Plan: AEMP Roadmap and priority countries

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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
**Kenya Country Priority Plan: Electrification Outlook**

**Electricity access progress**

**KPLC & REP customers, 2014/15-2019/20**

<table>
<thead>
<tr>
<th>Year</th>
<th>KPLC customers</th>
<th>REP customers</th>
<th>No electricity access</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/15</td>
<td>2,900,714</td>
<td></td>
<td>703,190</td>
</tr>
<tr>
<td>2015/16</td>
<td>2,900,714</td>
<td></td>
<td>6,073,202</td>
</tr>
<tr>
<td>2016/17</td>
<td>2,900,714</td>
<td></td>
<td>6,073,202</td>
</tr>
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<td></td>
<td>6,073,202</td>
</tr>
<tr>
<td>2018/19</td>
<td>6,073,202</td>
<td></td>
<td>1,502,943</td>
</tr>
<tr>
<td>2019/20</td>
<td>6,073,202</td>
<td></td>
<td>1,502,943</td>
</tr>
</tbody>
</table>

**Policy priorities and challenges**

- **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
Contact

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