

ESTABLISHMENT AND OPERATIONALIZATION OF UTILITY-RUN SUPER ESCO BY KENYA POWER & LIGHTING COMPANY PLC(KPLC)

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OUTLINE

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- 3.KPLC Super ESCO
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CONTEXT



Policies, Legal & Regulatory Framework

EE&C anchored on the provisions of:

- 1) Energy Policy 2018
- 2) Energy Act 2019
- 3) National Strategy on Energy Efficiency & Conservation
- 4) The Energy Management Regulations 2012 (under revision)
 - a) Designation of buildings and factories,
 - b) Minimum Energy Performance Standards and Labelling for some appliances & equipment
 - c) Training & Certification of Energy Auditors & Energy Managers
 - d) Licensing of Energy Auditors
 - e) Revised regulations to provide for licensing of ESCOs and certification experts for verification of savings

EE Activities

- 1) The Ministry of Energy, through The Centre for Energy Efficiency and Conservation (CEEC) established in collaboration with Kenya Association of Manufactures(KAM), has carried out a number of energy efficiency programs that include energy audits, training and certification of energy auditors.
- 2) The Government, through Kenya Power and Lighting Company PLC has initiated several projects aimed at ensuring efficient use of energy through demand side programs which include Compact Fluorescent Lamps (CFL) roll out to the residential sector, energy audits and advisory programs to SMEs, energy efficiency awareness campaigns and Time of Use tariffs to the industry.
- 3) EPRA has implemented provisions of the Energy (Energy Management) Regulations 2012 requiring facilities consuming more than 180,000 kWh annually to conduct energy audits and put in place measures to realize at least 50% of projected energy savings within three years.

Status of EE Implementation

Public Facilities:

- Estimated over 20,000 public facilities across the country
- Estimated Annual electricity consumption over 700GWh (approx. 10% of overall consumption)
- Associated electricity costs approx. 120million US\$ per annum
- No study/ energy audit has been done to establish the energy saving potential in public buildings
- The few preliminary energy audits done show that there are inefficient and old technologies in use in these buildings

Commercial & Industrial Sector:

- Efficiency in commercial and industrial sector is attractive.
- Approximately 3500 fall in the category where annual consumption is greater than 180,000kWh per annum.
- Out of the 1313 facilities that have attempted compliance with energy management requirements, only 43% have fully complied.
- If all the 1313 achieved 100% compliance, then 2563GWh of energy would be saved annually but so far the savings stand at 1102GWh annually.

BARRIERS TO EE IMPLEMENTATION



Barriers to EE Implementation

- 1) Inadequate information about EE potential and benefits, technologies, products and practices among the public sectors managers;
- 2) Inadequate technical expertise in the public sector- undertake investment grade audits, and verification of energy savings.
- 3) Limited availability of financing;
- 4) Little or no incentive to save energy as the resulting cost savings may lead to reduced operational budgets in the future (which may represent a disincentive to save energy);
- 5) Complex procurement processes which make it difficult for the private sector to venture into EE in the public sector;
- 6) Underdeveloped ESCO market due to limited experience, high project development costs, limited knowledge and understanding of EE projects by financial institutions;
- 7) Perceived high costs for project development considering the Energy Performance Contract (EnPC) scheme offered by the Energy Service Companies (ESCOs); and
- 8) Lack of a well-organized EE market of professionals and businesses.

KPLC SUPER ESCO



Why KPLC Run Super ESCO

- 1) To help stimulate growth of a vibrant and self-sustaining EE market with ESCOs and financiers capable of continuously developing and implementing EE projects ;
- 2) Enhance KPLC sustainability by tackling the challenge of increasing unpaid electricity bills especially by the public sector- USD 43million (by end of 2020).
- 3) Potential reduction in the cost of energy through peak shaving which substantial contribute to the cost of idle power.
- 4) Generate alternative revenue from development and implementation of EE projects, includes fees from Consultancy services.



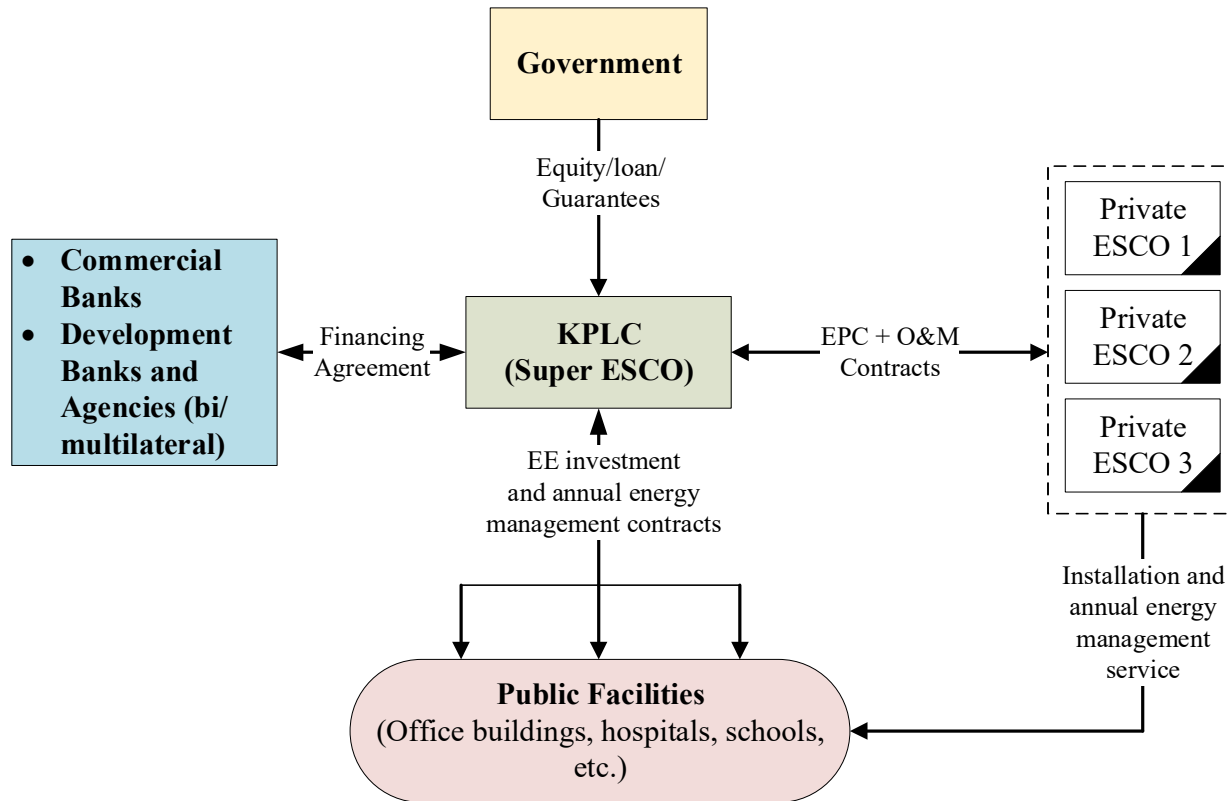
ACHIEVEMENTS



Achievements so far

- 1) National Energy Efficiency & Conservation Strategy has established the need for a utility run Super ESCO.
- 2) Ministry of Energy has supported KPLC request to establish the Super ESCO.
- 3) The National Treasury has requested the Africa Development Bank through SEFA to provide Technical Assistance to help KPLC establish a Super ESCO domiciled at the Institute of Energy Studies and Research(IESR) which is an innovation, research and technology centered training institute that provides high quality training for KPLC staff, corporates, and the general public and also mandated to pursue alternative revenue streams as part of the company's diversification strategy.
- 4) SEFA has granted first level approval for a grant in form of Technical Assistance.
- 5) Board of KPLC has approved establishment of a super ESCO unit domiciled at IESR.

KPLC Super ESCO Model:



NEXT STEPS



Next Steps:

Component/Activities	Outputs and deliverables
Recruit a consultant to support the Super ESCO in the recruitment process of the consulting firm	Recruitment of a consultant.
Component 1: TA in creating an enabling environment for the development and operationalization of the Super ESCO	<ul style="list-style-type: none"> • Super ESCO Business plan is formulated • Super ESCO staff, and personnel of from relevant National and Devolved Governments are trained in EE project development and implementation, including energy audits, monitoring and verification (M&V), energy management, etc. • Internal procedures as well as ESCO engineering/business tools are developed for the Super ESCO • Private ESCOs and financial intermediaries are trained on relevant aspects of ESCO projects development and implementation. • A website developed for the Super ESCO activities
Component 2: Developing an initial pipeline of investments	<ul style="list-style-type: none"> • Around 30 investment grade energy audits are carried out • Innovative and viable business models developed for the Super ESCO • EE projects launched and implemented

END

