ENERGY EFFICIENT LIGHTING AND APPLIANCES
in East and Southern Africa

Energy Efficient Lighting and Appliances (EELA) Project in East and Southern Africa

Country Efforts to Build a Local ESCO Market: UGANDA

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Country Context

Energy/energy efficiency situation in country

- Currently Energy efficiency initiatives are being undertaken on voluntary basis with minimal regulation. Government action is therefore needed to introduce the appropriate legal framework.
- MEMD is responsible for formulating energy policy and oversees the energy sector's operations.
- The Energy Efficiency and Conservation Department (EECD) is mandated to promote efficient utilization and conservation of energy in all sectors of Uganda's economy.
- The EECD works closely with the private sector, development partners and other MDAs, such as the Uganda National Bureau of Standards to develop and enforce the appropriate Minimum Energy Performance Standards.

- **Importance of energy efficiency to the country's overall development goals (including gender mainstreaming and poverty reduction)**
  - Reduced burden of energy costs on the economy which will significantly reduce Uganda's debt burden, improve competitiveness, and profitability of industries due to savings made through increased adoption of energy efficiency and conservation measures.
  - Implementing standards and labelling of specified energy consuming appliances and equipment will reduce emissions and also improve on savings on energy expenditure at household and national level
  - Creation of employment for certified energy auditors, energy managers, improved access to energy especially for rural communities, savings on imports on fuel due to improved energy efficiency
  - MEMD has developed a Energy and Minerals Gender Strategy 2022

- **EE policy and legislative background in the country:**
  - The Electricity Act of 1999
  - Energy Policy for Uganda 2002 (revised)
  - Energy Efficiency and Conservation Bill 2023

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Piloting the ESCO and Super ESCO Model in Uganda

Definition:

- ESCOs are generally viewed as companies that are engaged in developing, installing and financing comprehensive, performance-based projects, typically 5–10 years in duration, centered on improving the energy efficiency or load duration of facilities owned or operated by customers.

- Projects are performance-based because the ESCO's compensation, and often the project's financing, are tied to the amount of energy actually saved, and the ESCO assumes the risk in linking their compensation directly to results.

Project Objectives

Overall objective: To improve the EE market in Uganda by unlocking public financing for EE projects through the establishment of a super ESCO in Uganda.

Specific Objectives

i. To develop a super ESCO.

ii. To create favorable framework conditions for the local ESCO market by supporting the activities of local ESCOs.

iii. To improve national technical capacity for developing and operating EE energy performance contracts (EPC) projects especially in the public sector.

iv. To develop a pipeline of EE EPC projects and mobilizing financing for them.

v. To reduce 30% of the current GHG emissions in the country

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BARRIERS TO THE GROWTH OF ESCOs

1. Market Barriers

i. A lack of government support and involvement as
a customer.

ii. Scarcity of capital

iii. In the developing countries, companies prefer to carry out low cost or no cost options only.

iv. A large potential for energy efficiency projects lies with SMEs, but they lack access to capital. Also, size of their projects is too small for commercial banks to fund.

v. Lack of competition; there is hardly any incentive to cut costs by industries and they are able to pass costs to their customers.

vi. Utilities, that can kick-start the market in absence of government support, also have no need to support ESCOs as they are not required to carry out any DSM programmes. Their poor financial health in most of the countries further rules out their capability to promote ESCOs.

2. Institutional Barriers

i. ESCO business requires performance contracting, a concept with which both service providers and
buyers are yet not familiar with.

ii. In public sectors, procurement practices are centred on assets than services. Therefore, procedures and practices may need to be modified. Similarly, budget and accounting practices and laws may be an impediment to the energy efficiency projects.

iii. In case of utility involvement in projects involving utility customers, new institutional arrangements, practices and legal provisions may be required; for example, for collection of payment with utility bills. Utilities may not be willing to participate in such arrangements.

iv. Many developing countries have weak legal and contract enforcement framework. Wherever it exists, it is too slow to cater to the needs of the contracts.

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BARRIERS TO THE GROWTH OF ESCOs

3. Financial Barriers

i. A large number of energy efficiency projects are small in size; The transaction costs are too high for project financing on small projects.

ii. Most of the financial institutions lack appraisal ability when it comes to an energy efficiency project.

iii. In most cases, financial institutions in developing countries prefer to lend based on balance sheet financing. Since ESCO industry is still in initial stages in developing countries, this has been a major barrier to the growth of the industry.

iv. Due to a lack of credit history, ESCOs are treated as a high credit risk. This leads to high collateral requirements, which ESCOs are unable to provide.

v. In many cases, lenders are either risk averse or have very low risk taking capacity. They also lack the capability to carry out risk analysis and factor it in their lending practices.

4. Other Barriers

i. A lack of awareness of the energy efficiency potential. A lack of skill and technical competence in the company.

ii. A lack of aggressive marketing of energy efficiency projects has also been cited as a barrier by some industry experts.

iii. Cultural and other barriers may include inflexible bureaucracy, centralised decision making authority, too many rules and regulations, low priority to consumer interests, support of the status quo etc.

iv. Companies sometime perceive energy efficiency projects as a disruption in their working and therefore, added cost of disruption makes the project unattractive.

STRATEGIES TO ADDRESS THE BARRIERS

1. Development of market for EE projects

i. Government support may be crucial in the initial stages for this purpose, thru govt facilities piloting ESCO projects to build confidence among stakeholders and awareness programmes.

ii. For SMEs, that may lack access to information on energy efficiency measures and finance, special efforts such as setting up information clearing house, energy efficiency data base, projects data base etc. may be required.

iii. Energy sector reforms, which include transparent and sound energy pricing policy may be most important wherever prices are distorted. Similarly, other measures that encourage people to pay economic costs for the energy (such proper metering and bill collection in case of electricity) are also important.

2. Development of the local financing market

i. Development of a specialised energy efficiency financing window in the appropriate financial institutions, for example in commercial banks.

ii. A measure similar to the energy efficiency window is establishment of specialised energy efficiency funds. The funds can be supported by government, multilateral agencies and donors in this area.

iii. Financial institutions may require guarantees before they are comfortable with energy efficiency financing. In that case, a guarantee fund may have to be created for this purpose

iv. Development of ESCOs and institutions:

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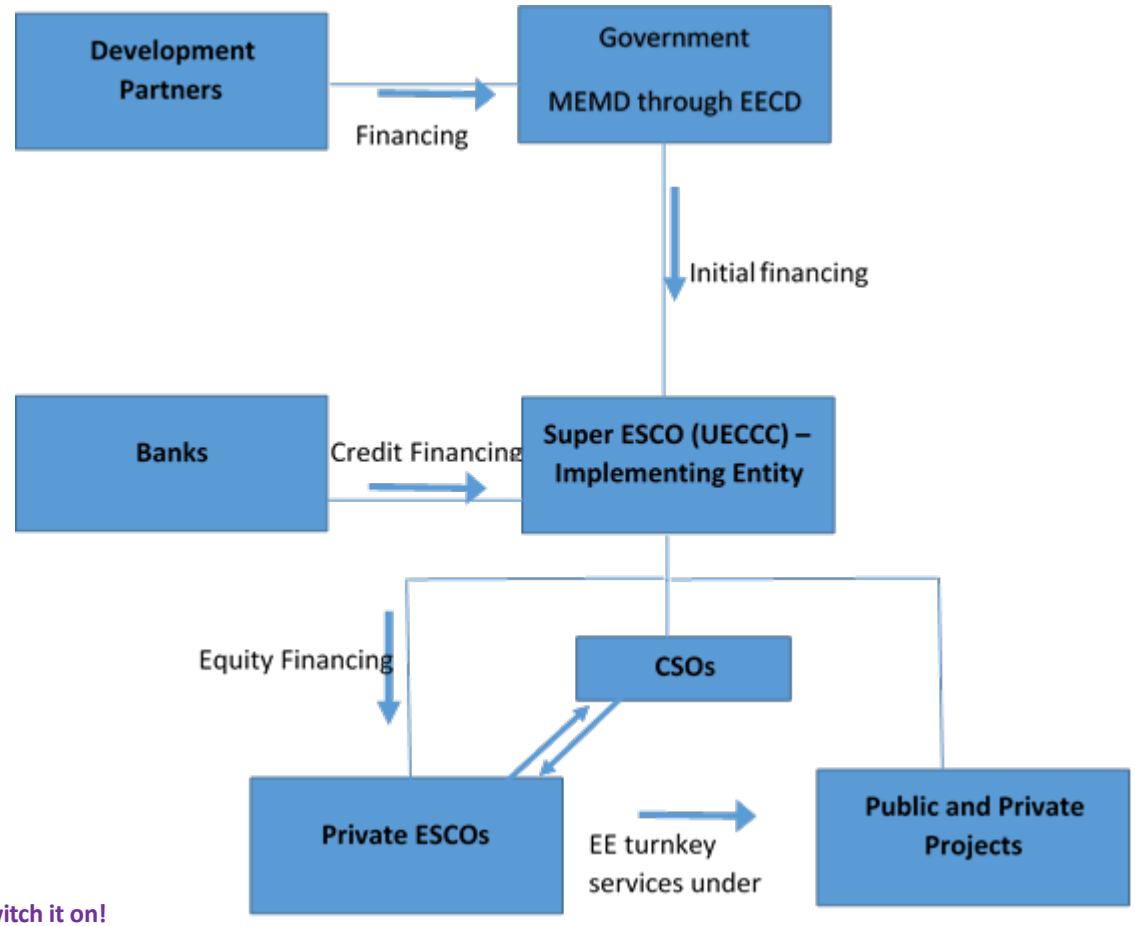
Proposed Project Structure for the ESCO and Super ESCO Project



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Proposed Implementation Stakeholders/Framework

STAKEHOLDER	ROLES
Government **MEMD, MoFPED**	• Provide initial funding for the Super ESCO • Plays a coordination role between the public entities and the Super ESCO • Review and approve designed EPC Projects • Monitor and supervise implementation of projects
Implementing Entity (Super ESCO) **MEMD**	• Mobilize financing • Provide equity financing to the ESCOs • Design EPC projects • Coordinate public procurements and EE projects.
ESCOs	• Implement and manage turnkey projects • Provide EE savings guarantees and provide repayment guarantees according to EPC contracts
Development Partners	• Provide financial support • Provide technical assistance and capacity building
Financial Institutions	• Provide low-interest credit facilities (Loan Financing)

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