

# **Terms of Reference for an international TA firm providing consulting services to KPLC to operationalize a Super ESCO (Draft Version)**

## **I. BACKGROUND**

Energy use in the public sector represents a major cost to the government and competes with other economic and social development programs for the government's limited resources. There are over 20 000 public buildings- including institutional facilities-, with an estimated annual energy consumption of 700 GWh (representing about 10% of the total annual energy consumption in the country). The associated energy costs for these buildings are approximately 120M USD per annum.

State agencies top the list of main electricity bills defaulters, which have driven Kenya Power to the edge. The share of Parastatals, national and county governments in the overall electricity customer debt stands at 30% as of June 2023. The debt by government agencies now adds to the pain of pending payments for Kenya Power which has been worsened by the Covid-19. There is a need to both tackle the unpaid bills issue and secure additional revenue streams required to ensure sustainability of KPLC. Consequently, KPLC management focus has shifted towards restructuring KPLC, sealing loopholes in revenue collection and exploring avenues for more revenue generation.

The Government of Kenya (GoK), through Kenya Power & Lighting Company Ltd (KPLC), has initiated several projects aimed at ensuring efficient use of energy through the Demand Side Management (DSM) Unit at KPLC which intends to play a leading role in driving the EE market. Many energy audits have been conducted across the country, but implementation of recommended measures has been slow partially due to insufficient financial capacity to invest in the implementation of these recommendations and notably the unavailability of suitable financial models that can encourage the implementation of the Energy Efficiency recommendations.

The African Development Bank's Sustainable Energy Fund for Africa (SEFA) is providing a Technical Assistant (TA) grant to KPLC to structure and build capacity of a team to operate as a Super Energy Service Company (ESCO) in Kenya. The Team will be established within the KPLC Institute of Energy Studies and Research (IESR).

IESR is a Division within KPLC that is responsible for capacity building, research and consultancy. Considering its broad mandate, IESR has made significant contributions in the energy sector. On the capacity-building front, IESR hosts a Technical & Vocational Educational Institution (TVET) that offers diploma and certificate courses in a broad array of engineering disciplines including Electrical Engineering, Mechanical Engineering and ICT. In addition, the Institute has been involved in capacity building initiatives straddling various thematic areas in power & energy including renewable

energy, e-cooking, safety competence in power systems as well as electrical power systems design and development. IESR is also a registered energy research institution under the Science, Technology and Innovation Act. The Institute has also provided consultancy services in energy planning and energy efficiency. The institute is therefore well positioned to take lead in KPLC's energy efficiency initiatives.

In the proposed framework, KPLC wishes to recruit an international firm to provide technical assistance (hereafter referred to as the Consulting Firm) to IESR in operating as a Super ESCO. The assignment will be funded by the TA grant and will be supervised by KPLC, the AfDB experts and any other experts as may be deemed necessary. The expectation is that the international firm will be able to provide operational support, daily advice, and in-depth capacity building to a dedicated unit established within the IESR, to operate as a Super ESCO (hereafter KPLC Super ESCO), and potential partners for a continuous period of up to twenty-four (24) months. The initially targeted market segments are hospitals, schools, public buildings, municipalities, street lighting and other public facilities, but might possibly include, in cases to be determined, the industrial sector as well. With the support of the AfDB SEFA, and the herein solicited Consulting Firm in ESCO management, there are excellent prospects for a successful ESCO industry start-up in Kenya.

Following the assignment, in case of successful performance, the Consulting Firm will be eligible for a continued relationship, possibly through either extension of contract or on a closer partnership basis, as will appear to be the most appropriate.

The Kenya National Energy Efficiency and Conservation Strategy outlined the Government's commitment to its Nationally Determined Contributions in line with the Paris Agreement. The strategy set out sectoral objectives spanning households, buildings, Industry & Agriculture, Transport and Power Utilities. One of the objectives for the power utilities sector was the creation and implementation of models for utility-financed energy efficiency projects. The KPLC board subsequently sanctioned the institution of an EE unit within IESR to help support the government agenda.

However, it is important to note that KPLC also aims to rapidly acquire the necessary skills for the timely implementation of EE projects and programmes in the mobility and industrial sectors to further contribute to the achievement of national energy reduction targets.

The foreseen mandate of the KPLC Super-ESCO are therefore to undertake the following activities:

- a. Conduct energy studies and audits.
- b. Establish Energy Performance Contracts (EPCs).

- c. Provide and install any equipment related to the exercise of its missions and perform , any provision of services, supplies and/or related works related to energy efficiency investments in its clients' premises. It must be noted that the KPLC Super ESCO will not be a separate legal entity in the short term to medium-term. As such, it will not be directly involved in project execution in the coming years. The contemplated model is to have the KPLC Super ESCO identify the projects and then subcontract to private ESCOs to undertake the installations.
- d. Mobilize and raise, as appropriate, the necessary financial resources for the financing of energy efficiency and services projects and programmes.
- e. Measure and verify the energy performance of projects carried out under EPCs and energy agreements.

In summary, the main short-term mission of the Super-ESCO will be to drive the State's EE programme from a utility-led perspective, with public sector clients and partners, and more particularly, as a priority, to help public partners as well as local and territorial authorities to design, define and implement adapted EE programmes, monitor it to verify and measure its energy and environmental impacts (including the carbon footprint). In this context, the intention is to make the KPLC Super ESCO play a major role as an instrument likely to promote the emergence of an ecosystem and a sustainable market in the field of EE, including the creation and/or development of other private ESCOs in the country.

For KPLC to fully fulfil its mission within the framework thus defined, technical assistance is put in place whose purpose is to support the complete operationalization of IESR in its new form of Super-ESCO, to accompany the first achievements of IESR under its new identity of service company and, more specifically, to enable it to achieve the objectives described in sections II and III below.

## **II. GENERAL OBJECTIVES OF THE ASSIGNMENT**

Through this technical assistance, the expected results are described as follows:

1. Contribute to the skills development of the KPLC Super ESCO team as well as that of its sub-contractors and partners;
2. Support the KPLC Super ESCO team in the organization and skills development of the Kenyan EE ecosystem;
3. Review and improve the IESR internal tools, processes and procedures, in light of the additional scope of a Super-ESCO;

4. Support the KPLC Super ESCO in the development of its initial pipeline of EE investment projects
5. Support the Super-ESCO in the realization of its first investment projects;
6. Review and implement in this context risk management tools and procedures;
7. Review and optimize the management of EE projects;
8. Review and support the implementation of a national and international fundraising strategy (loans and/or grants) for projects.

### III. SPECIFIC OBJECTIVES

The project that is the subject of this consultation consists of two (2) components:

1. Contribute to improving the operationalization of Super ESCO in all facets of its activity (contractual, accounting, financial, technical, etc.): the expected result of the implementation of this component is the improvement of the procedural heritage from KPCL and IESR and the evolution of an appropriate internal organization, including the updating of standard documents (model contracts, accounting procedures, valuation methodologies, accounting system, etc.). These measures should allow the full development of the Super ESCO up to the consolidation of its capacity to engage and manage large volumes of markets on a national scale;
2. Carry out a sufficient number of energy audits leading to the development of a portfolio of sectoral EE projects and proposing in each case a precise and quantified program of energy efficiency measures (investments, technical and/or behavioural measures). The expected result of this component is that a portfolio of EE projects is established so that the Consultant Firm, selected to implement the technical assistance mentioned above, within the framework of his mandate, can accompany the Super ESCO during the implementation of its first projects, in particular with regard to the mobilization of the necessary financial resources from financial institutions, at national and/or international level.

However, it is specified that the Consultant Firm **is not responsible for directly carrying out the energy audits** mentioned above. Its role will be to organise and implement the recruitment of energy audit specialists and to assist the IESR in all aspects of public procurement concerning these auditors, under separate contracts for which specific funding is foreseen outside the budget allocated to this consultation. The recruited auditors, specialists in energy audits in buildings and public lighting (and, where applicable, in industry), will be supervised by the Consultant Firm to ensure the quality of the audits carried out, constitute on this basis a pipeline of projects for the Super-ESCO, and accompany it in this context in its

operationalization as indicated above. To this end, the Consultant Firm should include in his team an expert in public procurement, specialist in the rules and procedures of contract awards in the public sector as well as being familiar with the rules and procedures of multilateral banks (and more particularly the African Development Bank), responsible in particular for managing the selection and contracting procedure of auditors for the performance of energy audits.

In addition, and in the same spirit, it is planned that a study tour will be organised in which some of the key staff of the KPLC Super-ESCO will participate. This trip will be the subject of a separate contract for which special funding will be provided for expenses relating to the staff of the Super-ESCO. These do not have to be included in the Consultant's financial offer. The role of the Consultant in this respect will therefore be to prepare the specifications of this study mission, the duration, the contacts to be defined and appointments to be made, the determination of the destination (or destinations) and its general organization and agenda and to provide an estimation of the accompanying cost to be added as an option to its financial offer.

#### **IV. NATURE AND EXTENT OF THE SERVICES REQUIRED**

The Consultant will be responsible for providing operational support to the Super-ESCO for an estimated period of 24 months, from the official start date of the contract, which must take place no later than one month after the date of signature of the assistance contract between the IESR and the Consultant.

##### IV.1 GENERAL EXPECTED SERVICES

- a) Support the Super-ESCO about the selection and management of energy audit firms in charge of carrying out audits as stipulated below. In this context, it will be necessary to organize the identification, the selection according to the procurement methods and procedures as stipulated by the African Development Bank (see <http://www.afdb.org>), and the contracting of international or national firms in charge of carrying out energy audits for the sectors included in the missions of the Super-ESCO, involving the staff of the IESR brought to become the core of internal specialists of the Super-ESCO, in order to train them, and then to make them likely to become themselves internal trainers within the Super-ESCO. To this end, the Consultant Firm will have to carefully propose the targets to be audited so that they reflect a wide typological variety and supervise the selected auditors so that the energy audits carried out actually lead to proposals for concrete achievements. These proposals will take into account different optional menus of measures and/or investments to be classified according to the

- financial amounts to be mobilized, the impact in terms of energy saving and decarbonisation, economic profitability, technical and financial risks, etc., in order to establish one or more model (s) type of audit report usable later by the IESR, and leading to the identification of bankable projects;
- b) Build on this basis a portfolio of EE projects to be developed in close liaison with the project management team of KPLC Super-ESCO and, accompany, at each stage of the implementation of these projects, the teams of IESR on all administrative and technical levels with a view to establishing a real sectoral mapping of the Kenyan EE ecosystem including the contributions of each actor;
  - c) On this occasion, adapt the general management framework of these projects, including the update of the procedure's manual, advice on the appropriate internal organization of the company, in the legal, accounting and financial fields, the models of contractual documents, the necessary internal skills, the methodologies for monitoring, measurement and evaluation of impacts, etc. Particular attention should be paid to risks analysis (development of risk mapping and associated monitoring tools);
  - d) More generally, define and propose to the Super-ESCO a global management framework, including in particular the development and production of internal management reporting documents, the assessment of human resources and capacity building needs, the financial management of the company and in the first place of the cash resources with the appropriate means of monitoring through appropriate digitized format, as well as all aspects of the concept of environmental and social responsibility (ESR). In this regard, review and support the implementation of new internal processes in an efficient manner, in particular within the framework of an adapted Information System of the Super ESCO, including ERP (Enterprise Resource Planning) software (which will need to be procured by KPLC on the advice of the Consultant); to manage daily activities (accounting, purchasing, risk management and compliance, supply chain operations, etc.).
  - e) Participate in the identification of potential partners on the EE market in Kenya (other local ESCOs, suppliers and installers of equipment and materials, potential customers of ESCO, etc.) and design a module of awareness and remote training of these partners, in particular to illustrate the services offered by the Super ESCO for the benefit of its customers and partners;
  - f) Provide permanent advice throughout the project that constitutes continuous training for the Super ESCO staff and partners and support the Super-ESCO in elaborating a realistic business plan and roadmap. Also, formulate and

implement a capacity building response based on the assessed needs for the Super ESCO.

#### IV.2 SPECIFIC EXPECTED SERVICES

Under this title, it is contemplated that the Consultant will be able, as an overarching goal, to support the Super-Esco in the design of its overall business plan as already mentioned in point f) above, based on the results of the various activities described hereafter. More specifically, the Consultant will be responsible for working closely with the staff of the IESR, and providing substantiated recommendations based on documented notes that will serve as deliverables, on the following aspects:

- A. Establishment of models of Energy Performance Contracts (EPC) adapted to the typology of projects likely to be implemented, both in the field of public buildings, local authorities or industry (being understood, however, that in certain cases the Super ESCO may also intervene according to more traditional forms of Assistant to the Contracting Authority or Deputy Contracting Authority, or even simply Technical Assistant, forms of action which will nevertheless require the assistance of the Consultant with regard to the development of contract models). In this respect, the need to propose modalities for setting up an Asset and Liability Management system will also have to be considered, to allow IESR to properly manage its assets according to the nature of its commitments and the analysis of its risks, particularly in view of its Super ESCO status, which may lead it to include installed equipment in its assets which are physically installed in customers' premises. The objective must be to simultaneously manage: (i) the life of the equipment, (ii) the duration of the CPEs and (iii) the maturity of the loans on which these assets are backed, while providing for instruments for managing the various risks that may result;
- B. Based on the sectoral mapping of the EE market in Kenya, development of new technical and economic models specific to the targeted sectors of activity and support for the implementation of marketing tools to raise awareness of the usefulness of EE and to present in appropriate forms, including digital instruments (website, electronic newsletter and case studies, etc.) but also through traditional means of dissemination (television, newspapers, information seminars, etc.), the services offered for the benefit of the Super-ESCO customers and partners. More generally, establishment of a communication strategy enabling IESR to promote its image as a national actor in the country's EE policy and to increase its reputation;
- C. Preparation of a management matrix for the activities of the KPLC Super ESCO, which makes it possible to trace, within the framework of the projects it develops

and manages, both the energy and economic benefits, as well as the environmental impacts, (in particular with regard to greenhouse gas emissions, the impact on raw materials, waste and the circular economy, etc.), and social and societal aspects (especially job creation, gender issues, etc.);

- D. Establishment of reporting schemes at the level of the KPLC Board of Directors and/or other national or international stakeholders (in particular donors) with regard to annual activity reports and the critical examination of Super ESCO's performance in all its areas of intervention and management: interpretation of project results, analysis of costs and financial results, development of the activity and turnover, evolution of the workforce and internal competence, evaluation of possible competition, etc. ;
- E. Advising on the mobilization of external financial resources, in particular from private banks or international lenders by providing the KPLC Super-ESCO staff with the necessary training in bank management procedures and methods, financial risk analysis, project financing methods, etc. More generally, attention will be paid to the acquisition by the staff concerned of financial analysis methods allowing the realization of financial simulations and profitability analysis (IRR, PBT, NPV, etc.), as well as on how to negotiate with commercial banks to obtain credits to be used for the financing of Super ESCO projects;
- F. In the context of the previous point, implementation of targeted training on access and accreditation modalities and procedures for private or public investment funds involved in EE (e.g. the GEF (Global Environment Facility) or the Green Climate Fund or those of major donors such as bilateral or multilateral development banks);
- G. Development of the manual of internal procedures, detailing in particular on the one hand the methods and means of risk analysis, leading to the decision to accept or refuse potential projects, and, on the other hand, the methods and means of monitoring and assessing the project from an accounting and financial point of view (budget management and cost control);
- H. Development of the manual of external procedures for the purchase of goods and services, in line with the public procurement rules in force in Kenya;
- I. Development of a manual for the management of the information and the documentation (e.g. computerized database, storage and archiving of documents in electronic and/or paper format, etc.);
- J. Establishment of an accounting structure and models adapted to the financial management of projects, budget monitoring and cost control, management of the receivables, etc., in a digitalized form to generate automatic alerts in the event of non-compliance with initial forecasts. In particular, it will be necessary to



- propose a tool for traceability of donations granted to projects from their receipt by the Super ESCO, until their allocation, through a specific reporting system;
- K. Establishment of cost accounting models adapted to human resources management according to the type of project to be processed, also in digital formats allowing line managers to constantly monitor workloads and activity rates by type of project;
  - L. Proposal of a detailed organization of the Super-ESCO, stipulating the necessary departments, their functions and their links including the hierarchical structure and organigram. For each department, definition of the nature of the skills required and the recommended staff profiles;
  - M. Prepare the specifications of the study mission of the Super-ESCO staff (place, duration, dates, contacts to be made, organization, accompaniment, etc.).
  - N. Prepare periodic progress reports on technical assistance for KPLC and the African Development Bank.

## V. PROGRAM OF TASKS AND DELIVERABLES

Considering the elements specified above, it is estimated that the Consultant should be able to devote at least 420 working days to the performance of the tasks covered by this assignment. On this basis, the technical proposal must propose a timetable of tasks allowing to distribute and allocate the days of the various experts according to the realization of the activities as mentioned above and within the framework proposed below (S1, S2, S3 and S4 designate the 4 semesters of realization of the project from the official signature of the contract):

	S1	S2	S3	S4
Kick-off	Update and development of the timetable and methodology (first month)			
<b>General services (see IV.1)</b>				
Activity (a)	Support for the selection of auditors	Conducting energy audits		

Activity (b)			Established project portfolio	Implementation of projects
Activity (c)			Adaptation of the project management framework	
Activity (d)				Definition of the overall management framework
Activity (e)	Identification of EE actors	Identification of EE actors		
Activity (f)	Permanent advice to Super-ESCO and support to business plan elaboration	Permanent advice to Super-ESCO and support to business plan elaboration	Permanent advice to Super-ESCO and support to business plan elaboration	Permanent advice to Super-ESCO and support to business plan elaboration
<b>Specific services (see IV.2)</b>				
Activity A	CPE Models	CPE Models		
Activity B			Communication strategies	Communication strategies
Activity C			Management matrix	Management matrix
Activity D			Reporting schemes	Reporting schemes
Activity E	Support on financial aspects	Support on financial aspects		
Activity F	Access to international finance	Access to international finance		
Activity G	Internal Procedures Manual		Internal Procedures Manual	

Activity H		External Procedures Manual		
Activity I			Management Procedures Manual	
Activity J			General accounting structure	General accounting structure
Activity K			Cost accounting procedures	Cost accounting procedures
Activity L	Internal organisation of the Super-ESCO	Internal organisation of the Super-ESCO		
Activity M		Preparation of a study tour	Study tour mission	Analysis of the results and integration of the impacts of the study tour
Activity N	Progress Reports	Progress Reports	Progress Reports	Progress Reports

The distribution of activities as suggested in the table above is indicative; the Consultant may, if deemed useful or necessary, propose adaptations within the framework of a detailed timetable of tasks, in particular to ensure that the level of effort in terms of the number of days worked during each semester of intervention is approximately the same.

Each of the activities numbered from (a) to (f) and each of those numbered from A to M will have to be the subject of a progress report for each of the 4 semesters during which the activity was carried out. This report will include any relevant documents related to the activity in question (working notes, issue notes, training materials, technical documentation, meeting minutes, evaluation reports, etc.). For activity (a) related to the management of the energy audits, four progress reports will be provided, considered as sub-deliverables of EA1, EA2, EA3 and EA4 as follows:

1. The selection of sites to be audited based on a sampling and typology note (EA 1)

2. Terms of reference adapted to each type of site to be audited (EA 2)
3. Preparation of corresponding RFPs (EA 3)
4. Contractual arrangements with selected auditors (EA 4).

Under activity N, the Consultant will provide six reports considered as project deliverables (L1 to L6), defined as follows:

1. L1: One month after the date of entry into force of the contract, an inception report updating the intervention methodology and a detailed timetable of tasks following the first exchanges and contacts with IESR managers and agents as well as an updated schedule for the realization of energy audits, training sessions and the Super-ESCO study tour scheduled for a group of IESR staff members.
2. L2, L3, L4 and L5: A half-yearly report presenting the summary of all the productions carried out under the activities described above during the past half-year, integrating all progress reports by activity as they are defined and numbered above. Each half-yearly report must be submitted no later than one month after the end of the previous semester. More precisely, these deliverables will contain progress reports related to the following activities as they are presented in the program above:
  - \_ L2 : progress reports regarding activities: a, e, f, A, E, F, G, L
  - L3 : progress reports regarding activities: a, e, f, A, E, F, H, L, M
  - L4 : progress reports regarding activities: b, c, f, B, C, D, G, I, J, K, M
  - L5 : progress reports regarding activities: b, d, f, B, C, D, J, K, M
3. L6: A final report presenting the synthesis of the work carried out over the past two years, the results achieved in relation to the objectives listed above as well as the recommendations made regarding the continuation of the action and development of the super-ESCO. This report must be submitted no later than two months after the effective end of the last semester of the Consultant's activity under the contract.

Each of the deliverables from L1 to L6 must also provide a detailed presentation of the time spent by each expert in relation to the timetable of tasks, distinguishing between time spent in Kenya and time spent at the Consultant's headquarters, accompanied by timesheets for each of the experts, and demonstrating that the level of effort corresponding to this deliverable is consistent with the level of payment as provided for in section VI below.

## **VI. PAYMENT ARRANGEMENTS**

The remuneration of the consultant will be made based on a fixed fee and on the basis of the deliverables submitted and deemed acceptable by IESR, according to the following modalities:

1. 10% upon delivery and acceptance of the L1 deliverable
2. 20% upon delivery and acceptance of each of the L2 to L5 deliverables
3. 10% upon delivery and acceptance of the L6 deliverable

These professional fees cover all salaries, office overhead with necessary translations, telecommunications with head office, travels, and subsistence expenses in Nairobi, and head office fees for specialized support services.

## **VII. SERVICES PROVIDED BY THE SUPER ESCO**

IESR will provide the Consultant with access to an office space. IESR will provide office furniture, a high-speed internet connection and a telephone line for national calls.

## **VIII. DURATION**

The duration of the contract is at least 24 months from the start of the service order.

## **IX. LANGUAGE OF OPERATIONS**

English will be the language of communication throughout the project, (day to day operation, dialogue with representatives and staff of the IESR and drafting of reports and other presentation notes).