REPUBLIC OF KENYA

Ministry of Energy

Terms of Reference

REF: REOI: KE-MOE-97084-CS-QCBS

Project: Kenya Off-grid Solar Access Project for Underserved Counties

Subject of Procurement: Consultancy Services for Independent Verification Agent (IVA) Of the Kenya Off-grid Solar Access Project (KOSAP) for Underserved Counties

September 2019

1. Background

The Government of Kenya has pledged to stimulate economic growth and hasten job creation to improve the economic wellbeing of Kenyans. Among the several interventions to attain this is expansion of the power distribution system to be within reach and thus enable more Kenyans to connect to the grid at affordable cost and hence initiate economic activities at the micro-economic level. Driven by the motive to provide equal opportunities across the entire Kenyan territory as key to achieving Kenya's Vision 2030 and the national target of achieving universal access to electricity by 2022, the GoK now seeks to close the access gap by providing electricity services to for the underserved counties of the country. The KOSAP directly promotes these objectives by supporting the use of solar technology to drive electrification of households, enterprises, community facilities, and water pumps.

Kenya Off-grid Solar Access Project for Underserved Counties

The Kenya Off-grid solar Access Project Underserved Countries (KOSAP), financed by the World Bank and implemented by the Ministry of Energy, Kenya Power and lighting Company (KPLC) and the Rural Electrification Authority (REA) aims to provide a comprehensive suite of investments to provide electricity services to households, enterprises and community facilities, boreholes, with pragmatic business models to attract private sector investment, sustainable services, know-how and efficiencies. The project beneficiaries are households, enterprises, and community and public facilities located in the 14 target counties. These beneficiaries will receive modern and climate-friendly infrastructure services such as electricity, improved water, and cooking solutions for the first time to replace consumption of kerosene, charcoal and other unimproved options. The beneficiaries are located in counties deemed marginalized by the CRA and consist primarily of the relatively cash-poor, remote, indigenous, and pastoralist population. The project is comprised of the following components.

Component 1: Electrification of households, public facilities and businesses through mini-grid systems. This component will support the electrification of areas where electricity supply through mini-grids represents the least-cost option from a country perspective, as underpinned by the geospatial plan.

Component 2: Electrification of households through standalone solar systems and provision of clean coking stove solutions for households. This component is comprised of the following two sub-components:

- **Subcomponent 2A**: Stand-alone Solar Systems for Households. This subcomponent will support off-grid electrification of households in the 14 target counties where a standalone solar system is the most appropriate technology to deliver energy services, leveraging Kenya's unique off-grid solar market dynamics and innovations.
- **Subcomponent 2B**: Clean Cooking Solutions for Households. This subcomponent will support a transition from low-efficiency baseline stoves to cleaner, higher-efficiency improved stoves.

Component 3: Electrification of community facilities through standalone solar systems and solar water pumps for communities. This component is comprised of the following two sub-components:

- **Subcomponent 3A:** Stand-alone Solar Systems for Community Facilities. This subcomponent will support the provision of electricity services to community facilities in remote areas in underserved counties.
- **Subcomponent 3B:** Solar Water Pumps for Community Facilities. This subcomponent will support financing solar-powered pumping systems to increase sustainable access to water supply by equipping new boreholes and retrofitting existing diesel-powered boreholes associated with community facilities within the target counties.

Component 4: Technical assistance, including institutional development, capacity building and project implementation support. This component also has two sub-components.

- **Subcomponent 4A:** Consumer Education and Citizen Engagement. This subcomponent will support the consumer education and citizen engagement activities for the program's key delivery areas (households, community facilities, and water facilities in the underserved counties).
- **Subcomponent 4B:** Implementation Support and Capacity. This subcomponent will support all technical studies, implementation support, and capacity building of sector and counties.

2. Purpose of the Consultancy

The purpose of the assignment is to undertake independent verification of relevant Component 1, 2, and 3 activities. The objective of the IVA is to verify that Recipients of the SSP RBF and Debt Facility and clean cooking solutions are complying with the stipulated uses of funds in the KSTs and the number of people reached through activities under component 1 and 3A and 3B, through desk, telephone and field surveys. ☐The data will be analyzed and put together in an IVA report that advises the MOE the level of compliance. It will also highlight the numbers of disallowed sales units, and number of households reached according to a pre-defined format. The assessment will also cover the likelihood of intentional fraud by Recipients. On that basis KOSAP can decide whether or not to call an Event of Default for a borrower that has misused funds.

The verification will further involve confirmation of number of people served under component 1 and both 3A and 3B and determine their satisfaction with the activities as well as their energy access outcomes through desk review, telephone and field surveys.

3. Scope of the Consultancy

The independent verification will be conducted in the 14 counties comprising Garissa, Isiolo, Kilifi, Kwale, Lamu, Mandera, Marsabit, Narok, Samburu, Taita Taveta, Tana River, Turkana, Wajir and West Pokot. The scope of work under this assignment includes independent verification of claims by contractors for standalone solar home systems and provision of clean cooking stove solutions for households and the number reached, and the number of households connected to the mini-grids, standalone solar systems and solar water pumps for communities.

The verifications will serve as a trigger for payments by KOSAP for activities under component 2. Verifications of works undertaken by the contracted vendors will comprise monthly phone based verification, and quarterly field verification of connections and satisfactory installations for service availability for mini grids, standalone solar systems, and solar water pumps. The IVA shall refer to

the PAD and the Results based facility and debt facility implementation manual for guidance. The consultant will further be expected to compile a report on the basis of the following activities;

a) Review the claim and the internal data management (collection and storage) of the beneficiary.
b) Telephone survey verifying the sales of the solar stand- alone home systems, and cook stoves.
c) Carry out independent sites visits verification of number of household's reached/covered under the mini-grids and solar water pumps.
d) Field survey to ascertain the presence of the solar home-systems, solar water pumps and cook stoves at end users.
e) Prepare the IVA report explaining the validity of the claims from both solar home system service providers and cook stoves service providers.

The consulting firm will further be expected to undertake the following:

Necessary pre-verification tasks

The IVA will be required to conduct pre-verification planning visits and meetings similar to an audit planning. Project documents will be reviewed during these visits and meetings, project organizational structures, regulatory framework, procedures, systems and controls. The overall critical path for planning will involve: scoping, profiling, planning, defining implementation strategy/methodology, budgeting and defining the operational logistics. The outputs of this activity shall include but not limited to work plan, implementation strategy, methodology, relevant implementation tools and reporting templates.

Systems Review

The IVA will visit both the facility manager and service providers or be given view access to the internal systems to review and verify the integrity of their sales and end-user portfolio tracking systems.

a. That the details of the final end users are complete, including but not limited to: i. Full names of the users. Phone contact; ☐ii. Exact geographic location of the users;☐iii. Specifications of the products that have been supplied, including serial numbers; iv. Date of delivery; ☐v. Type of product;☐vi. Condition of the products supplied; ☐vii. Whether warranty & after-sales services are offered by the Recipient. ☐

Reconcile the above data with the use of funds language in the loan agreement, as well as the ☐data sent to the KFM as part of the Recipient's reporting obligations.

Please note that this will only apply to component 2 and that the consulting firms will be required to give details of its delivery approach to the systems review.

Review of reports and relevant documentation

The IVA will review all incentive claim reports and incentive computations and verify that:

a) The originating organization is properly identified.
b) The details of the final end users are complete, including but not limited to:

- Full names of the users. Phone contact.
- Exact geographic location of the users.
- Specifications of the products that have been supplied, and confirm if they comply with those approved by the project including serial numbers.
- Date of delivery.
- Condition of the products supplied.
- Photos of households, facilities and boreholes connected

Data reconciliation and documentation review at RBF and debt facility beneficiary level

The IVA will:

a) Reconciliate all transactions in the claims with the data/records maintained by each RBF and debt beneficiary.
b) Determine and justify a statistically significant and representative sample of transactions to undergo documentation review.
c) Review the documentation of sampled transactions to ensure that they are adequately supported and in line with the data management process.

Phone Verification

a) The IVA will determine and justify an appropriate phone verification strategy and sample using justifiable sampling methods based on the relevant claims.
b) Make phone calls to specific beneficiaries under business enterprises, households and public facilities and verify whether indeed they are connected.
c) Make phone calls to specific users identified during sampling with support from the RBF and debt beneficiary (on need basis) while maintaining independence.
d) Verify the following during the phone calls:
    - That the identified person is the actual user of the products.
    - That the contact and location details of the user are correct.
    - That the user acquired the stated products. Total cost of the product to the user
    - Down payment/deposit/part-payment by end user Credit and repayment period
    - Interest/mark-up costs on the credit (only for loans)
    - That the user is familiar with the product specifications and their capabilities.
    - Status of the use of the products. Status of the payment for the products.
d) The IVA will carry out the phone interviews in a language familiar with the user.
e) The IVA will use a standardized questionnaire and make all reports in English.
f) The phone verification process will highlight areas of doubt or further clarification and form part of the targets for field verification.
g) The IVA may make recommendations for rejection of specific claims based on the phone verification process.
h) The IVA will give an assessment of the likelihood of fraud, which may require further investigations.

Field Verification

a) Upon completion of the phone verification process, the IVA will proceed to undertake field verification. The specific locations to be visited will be based on:
    - An appropriate sampling process for field verification.
    - Specifically identified users highlighted for follow-up during phone verification.
    - Targeting issues highlighted for verification by KOSAP PCU at Ministry of energy.
b) The IVA will carry out a field visit to retailers and a sample of customers; do interviews with customers, retailers and/or companies to verify on the spot if the customers have access to energy through the products supplied.
    - Carry out interviews in a language well understood by the user.
    - Collect answers to a set of pre-defined questions.
    - Carry out interviews with a sample of SSP's to verify details of the transactions.
    - Visit the organization claiming RBF incentives and verify the claim details by reviewing their internal documentation.
c) The IVA will also be expected to carry out field visits to assess and verify mini-grids connections to households, business enterprises and public facilities as well as boreholes installed with solar water pumps solutions.
d) Additionally, these field visits will be also used to capture additional monitoring and impact data; as well as to collect data on the SSP's and market development to inform the review process of the RBF and debt facility projects.
    - The IVA will be required to provide GIS co-ordinates of the visited SSP's and households connected.
    - Take pictures of customers and their products, and innovative or productive uses of the energy systems visited.

The consultant is expected to verify the following under each of the components:

Component 1: Electrification of households, public facilities and businesses through mini-grid systems. The IVA will undertake verifications of connections to the **151 mini grids** as follows:

i. Monthly Phone Verifications will cover the following:

a. The IVA will develop a phone verification strategy and a related sampling framework appropriate for the data available.

b. Make phone calls to sampled users who have been connected to the mini grids and verify that the sampled entity is the actual user connected to the mini grid, the contact and location details of the user are correct, and that the connection is meeting the user's needs

c. The IVA will carry out the phone interviews in a language familiar with the user using standardized questionnaires.

ii. Quarterly physical verifications will cover the following:

a. The IVA will develop a physical verification strategy taking into account the verification activities undertaken under monthly phone verifications. The strategy will ensure coverage of all connections considering the monthly phone verification activities and will include all those

beneficiaries highlighted for physical verification under during previous monthly phone verifications.

b. The IVA will undertake physical verification of connections to verify that the connections to the mini grid are physically existent, that the contact and location details of the user are correct, and that the beneficiary household, public facility or business is using the service of the mini grid as planned.

c. Verify that the completed connections by the contractors are consistent as per the signed contracts.

Component 2: Independent Verification of electrification of standalone solar systems installed in 250,000 households and provision of 150,000 clean cooking stove solutions for households. The IVA will undertake monthly phone verification and quarterly physical verification of standalone solar systems and clean cooking stove solution installations under Results based and debt facility model as follows:

i. Monthly Phone Verifications will cover the following:

a) The IVA will develop a phone verification strategy and a related sampling framework appropriate for the data available for CCS and SSP's for results and debt facility installations to the households.

b) Make phone calls to sampled households who have received either CCS's or SSP's, verify that the contact and location details of the user are correct, and that the installed systems are meeting the user's needs.

c) The IVA will carry out the phone interviews in a language familiar with the user using standardized questionnaires.

d) The IVA will certify or reject claims from the service providers for completed connections based on the phone verification process.

ii. Quarterly physical verifications will cover the following:

a) The IVA will develop a physical verification strategy taking into account the verification activities undertaken under monthly phone verifications. The strategy will ensure coverage of a representative sample of household CCS and SSP's for both RBF and debt facility connections considering the monthly phone verification activities and will include any beneficiaries highlighted for physical verification under during the monthly phone verifications.

b) The IVA will undertake physical verification of household installations to verify that installations are physically existent, that the contact and location details of the household are correct, and that the households are using the service as expected.

c) For Solar installations, verify that the products delivered to the beneficiaries meet Lighting Global Standards.

d) Verify that the completed installations by the contractors are consistent as per the signed contracts and certify them for payment.

Component 3: Electrification of community facilities (1,100) through standalone solar systems and installation of 424 solar water pumps for communities. The IVA will undertake

monthly phone verification and quarterly physical verification of all installations. The IVA will conduct the following verification activities:

i. Monthly Phone Verifications
   a) The IVA will develop a phone verification strategy and a related sampling framework appropriate for the data available for this component (electrification of community facilities through standalone solar systems and solar water pumps for communities).
   b) Make phone calls to sampled community facilities, verify that the contact and location details of the user are correct, and that the installed systems are meeting the community facility needs.
   c) The IVA will carry out the phone interviews in a language familiar with the user using standardized questionnaires.

ii. Quarterly physical verifications
   a) The IVA will develop a physical verification strategy taking into account the verification activities undertaken under monthly phone verifications. The strategy will ensure coverage of a representative sample of public facilities fitted with standalone solar systems and number of boreholes fitted with solar pumps considering the monthly phone verification activities and will include any beneficiaries highlighted for physical verification under during the monthly phone verifications.
   b) The IVA will undertake physical verification of community installations to verify that installations are physically existent, that the contact and location details of the community are correct, and that the community entities are using the installations as expected.

   Specifically, for Component 3A the IVA will verify the number of public facilities fitted with standalone solar systems and confirm that they comply with the technical specifications while for component 3B, the IVA will verify the number of boreholes fitted with solar pumps and confirm that they comply with the technical specifications.

4. Approach and Methodology

The consultant is expected to present a detailed methodology and work plan for conducting the assignment_communicating the understanding of the scope of the project, of how the IVA will go about executing the assignment.

5. Deliverables:

The assignment Deliverables shall comprise the following:

a. **Inception Report:** This report will describe the approach to verification of the planned outputs and a reconfirmation of the required reports. It will comprise a work plan, implementation strategy and methodology including the relevant tools and reporting templates
b. **Monthly Verification Reports:** These reports will comprise verification reports of the agreed outputs of contractors in each of the components in the scope of work
c. **Quarterly Verification Reports:** These reports will contain verification reports of the agreed outputs of the contractors in each of the components in the scope of work and include an

assessment of the likelihood of fraud, which may require further investigations, pictures of customers and the products purchased.

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d. Assignment Completion Report: This report will comprise a summary of verifications undertaken by the consultant over the duration of the contract.

i The IVA will convene exit meetings and make presentations of the verification findings and recommendations to the Recipient Organizations, to ensure objectivity in reporting. The IVA will also prepare the minutes of such meetings and ensure that all the findings and recommendations are agreed upon.

ii Risk Profile per RBF Recipient

iii Claims Review Report per Recipient, which will include a financial report and a narrative report with recommendations

iv Primary and secondary data collected during the assignment

v Power point presentations summarizing the overall verification exercise and IVA findings.

6. Duration of the Assignment

The duration of this assignment is expected to be 4 years. The firm is expected to start the assignment by January 2019

7. Reporting and Management of the Assignment

The selected firm will work with an appointed team of counterpart staff from the KOSAP project. The consultant will also work closely with the relevant stakeholders throughout the assignment including the Funds Manager for Component 2 and the Supervising Consultants for Components 1 and 3.

For purposes of supervision, the consultant shall undertake the study together with 42 counterpart staff seconded by the project proponent i.e. 14 County Renewable Energy officers (CREOs) and 28 members of the Project Co-ordination Unit (PCU) for the 14 counties. The counterpart staff will join the consultant during some of the fieldwork. The consultant will be expected to pay the Daily Subsistence Allowance's as per their respective job groups at an average rate of Kshs 12,600 per person per day for the counterpart staff during the field visits and provide transport costs within the county arising from their participation. Please note that this will be a reimbursable cost.

8. Qualification and Relevant Consultancy Experience

The consultant will be a firm or consortium of firms with extensive experience in conducting independent verification, procurement audits, supervision and quality assurance and other related assignments such as certification services in the last 5 years. The firm should be able to demonstrate experience in conducting similar assignments in both remote rural and urban areas of Kenya or Sub-Saharan Africa. In addition, the firm should also demonstrate its ability in the following areas:

(i) Experience in field data collection and analysis using qualitative and quantitative methods, and report writing.

(ii) The consultant shall have expertise in independent verification and/or certification services in finance, procurement and energy related services.
(iii) The consultant shall comprise of experts with stipulated academic qualifications and professional experience. Experience of working in Kenya and other developing economy in energy sector will be an added advantage.
(iv) The specific experience of the firms/ JVs (separate from key staff) should be provided.
(v) Previous experience with donor-funded projects is highly desirable.
(vi) Capacity to organize logistics in remote parts of Kenya and the urban slum areas of the major towns is a must.

9. Team Composition and Required Qualifications

The Consulting team or firm should comprise of at least 7 consultants with the following minimum qualifications and experience:

- **Team Leader**: Shall have preferably a minimum of a Master's Degree in Electrical Engineering or Energy Economics with over 15 years of experience in relevant project management and implementation. The expert shall have previous experience, including team-leader positions, in verification and certification assignments. Experience in rural electrification in Kenya and/or other developing countries will be an added advantage.

- **Monitoring and Evaluation Expert:** Should have a Masters degree in Economics, Management or related field with over 10 years of practical experience in M&E, especially in the energy sectors. Experience in conducting independent verification in renewable energy sector is highly desirable, so is working with the government or large organizations, and interacting with groups.

- **Financial Management Specialist:** Shall have a minimum of Masters Degree in a financial or related discipline with over 10years experience in certification, procurement audits and verification services. Knowledge of the energy sector will be an added advantage.

- **Energy Specialist:** Bachelor's degree in electrical/ mechanical/ renewable engineering. Minimum of 8 years of relevant engineering experience of which at least 3 years should be in distribution systems and at least 2 years in solar mini grids/solar hybrid systems/solar stand-alone systems. Solar PV licensing by ERC will be an added advantage. Fluency in English and Kiswahili languages.

- **Socio-Economist:** Shall hold preferably Master's Degree in Energy Economics/ Sociology/Development Economics or an MBA with at least 8 years of experience in conducting monitoring and evaluation of related projects. Knowledge of socio-economic/financial aspects of electricity service and rural electrification is an asset. Experience in energy and gender issues will be highly considered.

- **Accounting:** The Accountant shall have preferably a Master's Degree or equivalent in Finance or Business Administration and/or other relevant discipline with more than 5 years of professional experience. The expert shall have experience in audit and verification activities and shall be a member of a professional body. .

- **Environmental Management Specialist:** Should have a minimum of MA or M.Sc. Degree in Environmental Science, Environmental Engineering, Natural Resources Management, Environment and Development, Environmental engineering, or related disciplines. Minimum of 5 years work experience in environment management, renewable energy, and off-grid rural electrification.

In addition, the firm shall require to demonstrate capacity of 10 verification auditors with a degree in finance, accounting, economics, contract management etc. to support the field verification activities under the components as indicated in the scope above.

The table below indicates the required time input for each of the experts:

#	Expert	Time Inputs (Man Months)
i.	Team Leader	14 (spread over 4 years period)
ii.	Monitoring and Evaluation Expert	14 (spread over 4 years period)
iii.	Financial Management Specialist	12 (spread over 4 years period)
iv.	Energy Specialist	12 (spread over 4 years period)
v.	Socio-Economist:	12 (spread over 4 years period)
vi.	Accounting:	12 (spread over 4 years period)
vii.	Environmental Management Specialist:	12 (spread over 4 years period)
viii.	Verification Auditors	12 (spread over 4 years period)

10. Working Language

The working language for this assignment will be English, but the verification team should include members able to communicate in Kiswahili and local languages.

11. Selection Method

The attention of Consultants is drawn to section III, para 3.14, 3.16 & 3.17 of the World Bank's *Procurement Regulations for IPF Borrowers: Procurement in Investment Projects Financing Goods, Works, Non-Consulting and Consulting Services, "Procurement Regulations for IPF Borrowers" July 2016, revised November 2017 and August 2018* ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications. Firms may partner either during the expression of interest or thereafter but the conditions applicable to the firm whose application is received will be applicable to the partnering firm. Firms are particularly encouraged to partner with local experts.
A Consultant will be selected in accordance with the Quality Cost Based Selection (QCBS) method, following shortlisting, as set out in the above procurement Regulations.

12. Eligibility

A firm declared ineligible by the World Bank group in accordance with the Bank Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants shall be ineligible for short listing.

13. Obligations of the Client

The Client will provide the necessary reference documents, provide supporting letters to facilitate the consultant's travel, monitor the work, and release contractual payments in a timely manner.