



**RURAL ELECTRIFICATION AGENCY**  
ENERGY – EMPOWERMENT – EFFICIENCY  
**NIGERIA ELECTRIFICATION PROJECT (NEP)**



**THE WORLD BANK**

## **NIGERIA ELECTRIFICATION PROJECT**

### **DRAFT TERMS OF REFERENCE**

#### **FOR**

**Consultancy Services for Independent Verification Agent for Results Based Finance Facilities for Solar Home Systems and Mini Grids (Northern Region)**

**REA-NEP/C/QCBS/178/2024**

**September 2024**

## **DRAFT TERMS OF REFERENCE**

### **Consultancy Services for the Engagement of Independent Verification Agents (IVA) for DARES Project – Northern Region (Ref. No: REA-NEP/C/QCBS/178/2024)**

#### **1. Background**

In 2018, the Federal Government of Nigeria secured a low-cost loan of US\$ 550 million (US \$350 million from the World Bank and US\$ 200 million from the African Development Bank) for the implementation of the Nigeria Electrification Project (NEP, P161885). The NEP, being the FGN's flagship off-grid access program was launched in 2018 with of aim of connecting more than 3.5 million people, 90,000 MSMEs, and public institutions (15 universities, two teaching hospitals, and 100 COVID-19 isolation centers). The NEP has been successful in delivering clean, reliable electricity to more than seven million people and had created an ecosystem for private sector led electrification in Nigeria supported by catalytic public sector subsidies administered as results-based financing (RBF).

Although the NEP has laid credible foundation to help Nigeria reach universal access by 2030 and achieve its Nationally Determined Contribution (NDC) commitments under Paris Agreement, a lot still has to be done towards achieving these ambitions.

Recognizing the need to further accelerate access to clean, reliable and sustainable power towards bringing to realization Nigeria's Energy Transition ambitions, the FGN in partnership with the World Bank have embarked on the implementation of the Nigeria Distributed Access Through Renewable Energy Scale-Up (DARES) Project to scale-up the existing impact of the NEP.

The DARES was launched by the World Bank in 2022 at COP 27 in Egypt. The Nigeria DARES ("DARES") project a US\$ 750 million loan facility to the FGN is the first World Bank initiative coming out of the World Bank Group Joint Implementation Plan (JIP) on access and seeks to accelerate electricity access to over 13 million Nigerians in rural, unserved, and underserved peri-urban areas through the deployment of mini-grids (Isolated and Interconnected) and stand-alone solar solutions using innovative financial and de-risking instruments to triple the pace of electrification.

Given the success of the NEP and mandate of the REA to further increase the deployment of sustainable energy access solutions to unserved and underserved parts of Nigeria, the DARES just like the NEP will be implemented by the REA

through the existing Project Management Unit (PMU), and the REA has signed a subsidiary agreement with the Federal Ministry of Finance to initiate implementation of the DARES.

The DARES project has three components, all of which will be implemented by the REA:

Component 1: Solar Hybrid Mini Grids for Rural Economic Development (the total IDA commitment for Component 1 is USD410 million)

Component 2: Stand-alone Solar Systems for Homes and MSMEs (the total IDA commitment for Component 2 is US\$300 million)

Component 3: Technical Assistance (The total IDA commitment for component (US\$40 million)

## **2. Objective of the assignment**

2.1. The overall objective of this assignment is to support the verification processes prior to disbursement of grants under Components 1 and 2 of the DARES Program.

2.2. There will be two independent verification agents. One IVA will cover the northern part of the country (North East, North West, & North Central), while the other IVA will cover the southern part (South East, South West, & South South). This TOR focuses on activities of the IVA in the northern part of the country.

2.3. The assignment entails the verification of customer connections and satisfactory electricity service with expected consumption levels/capacity utilization as required for the mini grid program under Component 1 (minimum subsidy tender) and more specifically provided in the Grant Agreement to be entered into with beneficiaries under Components 1 and 2.

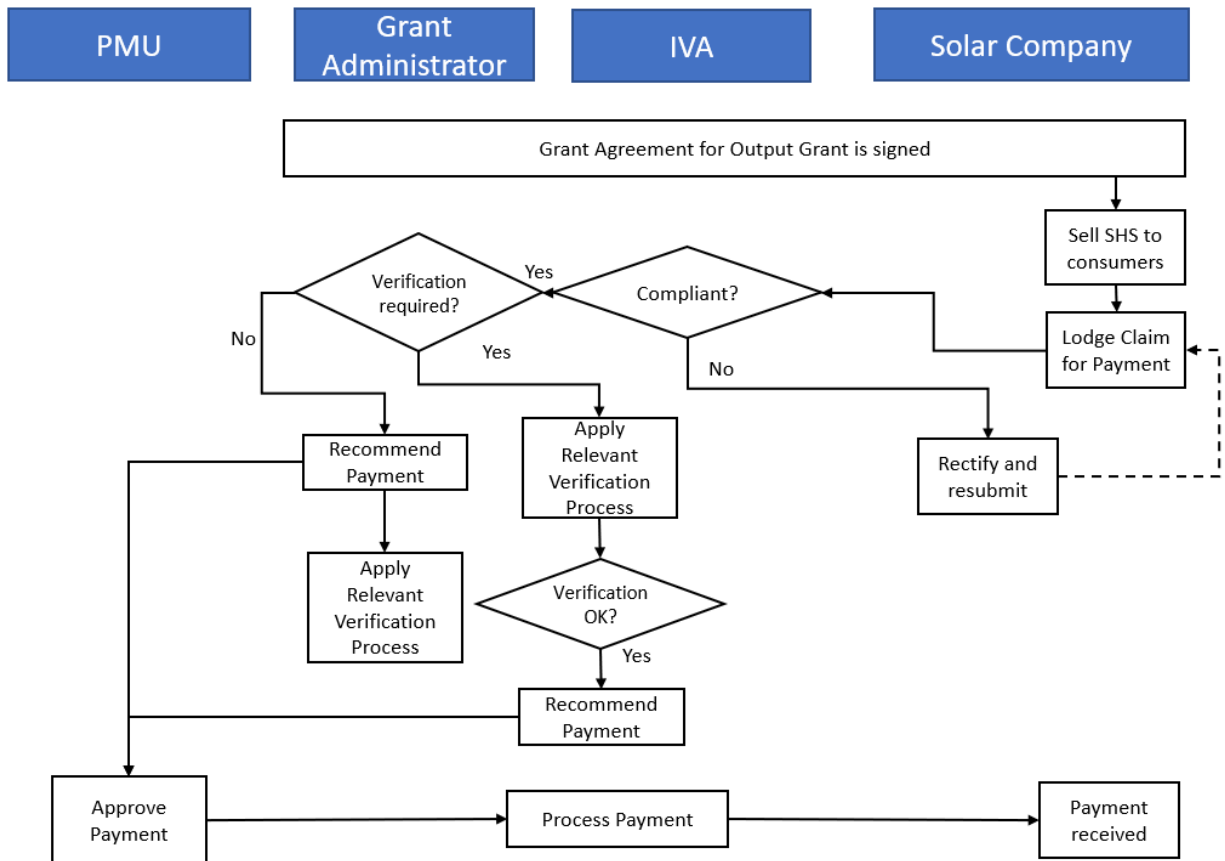
**3. Scope of Works** The following escalating, risk-based verification is suggested as a starting point for the IVA. However, the IVA should specify the recommended method of auditing, based on best practices, which also balances costs with accuracy, efficiency, and reliability.

### **3.1 Verification framework**

#### **(a) Verification process**

The overall verification process is summarized below:

Output Based Grant Payments



**(b) Levels of verification**

The programme should be supported with several layers of monitoring and evaluation activity. The following escalating, risk-based verification is suggested as a starting point for the IVA. However, the IVA candidates should specify in their proposal the recommended method of auditing based on best practices and that which balances costs with accuracy, efficiency, and reliability.

**i. Standalone Solar System (SAS) Component**

Audit Level	Name	When to apply
<b>Audit Level 1</b>	Telephone & Field sample	Combination of verification of online status of systems in GSM networks (linked API)

		followed by phone and physical site visits survey for verifying sales details.
<b>Audit Level 2</b>	Full grantee and customer audit	If there is evidence of, or concern about recordkeeping or a significant lack of integrity in the claims data of a grantee.

## ii. Solar Hybrid Mini Grid (Mini grid) Component

<b>Audit Level</b>	<b>Name</b>	<b>When to apply</b>
<b>Audit Level 1</b>	Telephone & Field sample	Remote verification of meters with API linked to remote monitoring platform. Consumption rates of connections submitted for disbursement will be checked to determine meters have been successfully active and minimum consumption/capacity utilization threshold at an aggregate level has been achieved. This will be further confirmed by a phone and physical site visits survey of total or sample connections.
<b>Audit Level 2</b>	Full grantee and customer audit	If there is evidence of, or concern about recordkeeping or a significant lack of integrity in the claims data of a grantee.

### **(c) Timing and triggers of independent verification**

- New connections of the mini grid developers may be verified remotely through smart metering for claims submitted once a month. In cases where this is not possible, e.g. connections fall outside of GSM networks, the developers may submit customer acceptance receipts that confirm satisfactory delivery of electricity to new customers a percentage of which will then need to be verified through spot checks for the claim to be complete and recommendation for disbursement to be made.

## **3.2 Independent verification activities**

The IVA will report on the verification outcomes based on an agreed upon template with the REA/PMU with input from the Grant Administrator firm, which will facilitate the implementation of the solar home system component.

The following are some suggested approaches for the verification; however, the IVA may propose improvements or alternative approaches based on best practices and understanding of the sector and the operational context for this assignment.

The sample size for the verification process is listed below:

**i. Standalone Solar System (SAS) Component**

Description	Number of Claims	Sample Size	Comments
Monthly Submission	500 & <	100%	Strategy for verification to be provided by the IVA in their operational document
Monthly Submission	500 & >	50%	
Spot Checks	vary	20% of all claims that have been verified and paid across an 18 months timeframe	Phone and field

**ii. Solar Hybrid Mini Grid (Mini grid) Component**

Description	Number of Claims	Sample Size with meters linked to Odyssey	Sample Size with meters not linked to Odyssey	Comments
Grant Claim Submission	Less than 200	100%	100%	Strategy for verification to be

Grant Claim Submission	Between 200 & 500	70%	100%	provided by the IVA in their operational document
Grant Claim Submission	Between 500 & 1000	50%	80%	
Grant Claim Submission	More than 1000	50%	70%	
Spot Checks	vary	20% of all claims that have be verified and paid across an 18 month timeframe		Phone and field

**3.3 Phone and Field Verification**

- ✓ The IVA will determine and justify an appropriate phone verification strategy and sample using justifiable sampling methods based on the relevant claims.
- ✓ Verify via call spot checks specific users identified during sampling from the consumer sales database coming from the grantee claims report.
- ✓ The IVA will interview the community head or his most senior representative as at the time of visit to get their feedback on the satisfactory operations of the mini grid in the community. The IVA will include details of the interview in it's report to the PMU.
- ✓ It is expected that grantees working with GSM enabled products in GSM accessible areas will enable linkage of their API systems with the online platform so that the live status of the customer connections can be verified remotely. This will provide an added layer of confidence and reduce some of the effort and therefore

cost on the spot checks. However, additional information from the users will need to be provided.

- ✓ 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 including the correct product model claimed by the grantee.
  - Total cost of the product to the user
  - Down payment/deposit/part-payment by end user
  - Credit and repayment period (only for loans)
  - That the user is familiar with the product specifications and their capabilities.
  - Status of payment for the products
- ✓ The IVA will carry out the phone interviews in a language familiar with the user
- ✓ The IVA will use a standardised questionnaire and make all reports in English.
- ✓ The phone verification process will highlight areas of doubt or further clarification and form part of the targets for field verification.
- ✓ The IVA may make recommendations for rejection of specific claims based on the phone verification process.
- ✓ The IVA will give an assessment of the likelihood of fraud, which may require further investigations.
  
- ✓ The field verification will run in parallel with the phone verification process, the IVA will submit a verification implementation methodology that encompasses:
  - An appropriate sampling process for phone & field verification.
  - Specifically identified users highlighted for follow-up during phone verification.
  - Report on grievances and following up to ensure resolution.
  
- ✓ The IVA will carry out a field visit to a sample of customers and do interviews with customers 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 to include those from the above phone verification.
- ✓ The IVA will be required to provide GIS co-ordinates of the visited households.
- ✓ Provide photographic evidence of customers and their products.
- ✓ Customers outside of the GSM network present an added risk due to the inability for remote monitoring or verification. Hence, for to the extent that sales to these customers form part of the claim, the IVA should present a robust method of verification that minimizes the risk of fraud and collusion.

### **3.4 Full Audit**

- ✓ If irregularities are present during the verification process of the two key methods above and the grantee fails the systems audit, the IVA will proceed to conduct a full audit.
- ✓ This would entail checking the grantees management and record collecting systems to determine whether there has been an error in recordkeeping or whether fraudulent activities may be taking place.

### **3.5 Reporting, mediation, proposed adjustments**

The IVA will document the findings and make recommendations related to both the phone and field verification processes.

- (i) Present the findings and recommendations of the verification exercise to the Grants Administrator (GA) and to the REA PMU after concluding the verification exercise.
- (ii) Submit, in the reports, pictures of customers and their products taken during the Field Verification stage (if applicable).
- (iii) The IVA will be required to propose adjustments to the incentive claims based on verification findings. This includes increasing, decreasing or removing altogether specific claim items or categories of claim items. The IVA will thus be responsible to report errors or omissions in the claims and provide recommendations on how to deal with them. The recommendations of the IVA on the claims are not binding to the GA and PMU, but will be important in assisting these two entities to make informed decisions.

- (iv) The IVA will propose the percentages for thresholds for deferring/suspending a claim, based on the risk review, and taking into consideration progress made in the activities.
- (v) The IVA will provide an assessment of the likelihood of fraud which may require further investigations
- (vi) The IVA will work closely with Odyssey Energy Solutions to integrate monitoring and verification processes into the online platform. The IVA is expected to develop an independent dashboard for verification, this dashboard will be used to check against the reporting on the odyssey platform and the monitoring tool of the grant's administrator, which will also be crosschecked with the numbers from the Financial Management Unit of the PMU. The IVA will also carry out monitoring and evaluation oversight functions, especially reporting grievances reported during the verification process.

The Consultant will be required to carry out other related tasks, within the Project Management Unit, for the Project.

#### Summary of key deliverables

The IVA will submit a verification approach inception report to include the verification approach to the GA and PMU, which will cover:

- ✓ Sampling size and spot checks to be done through remote verification (monitoring of live systems, phone calls, etc.)
- ✓ Phone and field questionnaires for the grantee's claimed customers
- ✓ The questionnaires and reporting format will be reviewed and jointly pre-agreed with the GA and PMU, before implementation
- ✓ Verification completion labelling and progress tracking to be done through the online platform Odyssey Energy customized site
- ✓ Quarterly reporting to the GA and PMU on the total number of claims and verifications completed for each claim
- ✓ Dashboard detailing the verification status to be shared with the PMU
- ✓ Template for tracking, reporting, and following up on grievances reported during the verification process.

- ✓ Support approach to the DARES M&E framework for the project including efforts of the PMU to track robust impact metrics and storylines and ensure continued sustainability of the projects.

#### **4. Quality and performance review**

The REA PMU shall be conducting periodical quality and performance review of the IVA processes, operations, and outputs.

**5. Duration of Assignment:** The initial phase of the assignment is 24 months with the possibility of extension upon satisfactory performance.

#### **6. Qualification and Experience of Firm**

The consultancy firm with the following qualifications is invited to participate in the independent verification agent's assignment.

- 6.1 The IVA will be a top tier consulting or audit firm with a minimum of five (5) years operational existence as an organization, and must show evidence of having supervised the construction or conducted technical audit of government nationwide projects.
- 6.2 The firm must have a minimum of two (2) similar assignments in the last five (5) years
- 6.3 The IVA must have the capacity to verify transactions, with:
  - Demonstrated experience in verification exercises, socio-economic studies and field or on-site studies
  - Proof of accounting, audit and finance background will be essential
  - Experience in organizational and project assessments including systems review
  - Past roles in project transaction verification will be an advantage
- 6.4 The IVA shall demonstrate that it has the ability to deploy resource persons in all 774 local government locations if and when necessary. Those resource persons must be fluent in local language and English.
- 6.5 The IVA must have experience with rural economies through past assignments. Familiarity with rural interventions will be advantageous including engagement with energy access companies and productive use appliance and equipment or service providers
- 6.6 Excellence in computer skills is mandatory for all proposed staff.

- 6.7 Ability to deploy a robust data collection and management system with capacity to track GIS coordinates for the field visits evidence of similar deployment in the past will be essential
- 6.8 IVA must have the capacity to build and deploy technology solution that can manage and conduct the verification process seamlessly. Solution must be rural friendly and must have been used for at least 2 government projects in the last 5years.
- 6.9 Technology deployed by IVA must be scalable and interoperable for data capture at scale.
- 6.10 The Consultant shall provide the following experienced personnel to carry out the assignment with the following minimum qualifications:
  - 6.10.1 Coordinator: The Coordinator should have at least a higher education degree i.e Masters' degree in Accounting and/or Auditing, eight (8) years of experience and be able to show leadership skills for backing the team and reporting clearly on the outcomes for the contracted period. And must be conversant with the use of data capture tools and software.
  - 6.10.2 Senior Auditors: Two Senior Auditors will be required. One auditor with at least a degree in Auditing or Accounting and the other with at least a degree in engineering or energy management. Both will possess at least five (5) years of experience in similar activities. The Auditors will primarily use desk/remote verification methods using the submitted claims on the online platform and the systems' live status (where applicable). They will liaise and work with the field resource team as applicable. And must be conversant with the use of data capture software and tools.
  - 6.10.3 Field verification specialists: Four specialists with at least a BSC in Engineering or related subject with 3 (three years) experience on development of mini grids. The team will need to demonstrate clear capacity for managing risk in the field related aspects especially on integrity and plan for preventing collusion possibilities. And must be conversant with the use of data capture software and tools.

## **6.11 Key Staff Inputs**

The proposed estimated staff inputs is as follows:

S/N	Key Expert	No	Time Inputs (Man-Months)	Total Time Inputs (Man-Months)
1.	Team Coordinator	1	18	18
2.	Senior Auditors	2	14	28
3.	Field Verification Specialists	4	20	80
	<b>Total</b>			<b>126</b>

**7. Budget and Level of Effort**

The applicant will propose, in its IVA role application, fee rates based on staff expertise levels. The fee structure proposed should indicate the level of each resource person and indicate support staff, if any, and associated administrative and reporting costs.

The estimated total man-months input is 126.

**8. Duration of the Assignment**

The duration of the assignment shall be for an initial period of 24 months with the possibility of extension upon satisfactory performance.

**9. Facilities to Be Provided by the Client**

The REA will provide the Consultant with the relevant documents and information to enable the consultant meet deliverables.

**10. Selection Method**

Consultant will be selected in accordance with the Consultants Quality and Cost-based Selection (QCBS) set out in the Procurement Regulations for IPF Borrowers dated September, 2023, *Fifth edition*, available on [www.rea.gov.ng/procurement](http://www.rea.gov.ng/procurement).