



RURAL ELECTRIFICATION AGENCY

ENERGY • EMPOWERMENT • EFFICIENCY

NIGERIA ELECTRIFICATION PROJECT

TERMS OF REFERENCE (TOR) FOR CONSULTANCY SERVICES FOR PREPARATION OF ENVIRONMENTAL AND SOCIAL IMPACT ASSESSEMENT (ESIA) FOR THE PHASE 3: ENERGIZING EDUCATION PROGRAM UNDER THE RURAL ELECTRIFICATION AGENCY

December, 2019

TERMS OF REFERENCE (TOR)

1 INTRODUCTION/ BACKGROUND

The Federal Government of Nigeria (FGN) has received financing from the African Development Bank for the Nigeria Electrification Project (NEP) and intends to apply part of the proceeds for Consultancy Services for the preparation of an Environmental & Social Impact Assessment (ESIA).

2 DESCRIPTION OF THE PROJECT

The Nigeria Electrification Project (NEP) is focused on practical, medium-term opportunities to significantly upscale electricity access through off-grid with different components. i.e. **Component 1: Solar Hybrid Mini Grids for Rural Economic Development; Component 2: Productive Use Appliances and Equipment** and **Component 3: The Energizing Education Programme (EEP).**

Component 3: Energizing Education Programme (EEP)

This EEP initiative will provide off-grid captive power plants for the generation and provision of dedicated and uninterrupted power supply to thirty-seven (37) Federal Universities and seven (7) adjoining university teaching hospitals ("UTHs") across the six Geopolitical zones in Nigeria. The project will be implemented in phases and this ToR is meant for the phase 2 of the EE project, which consist of seven (7) universities and two (2) teaching hospitals. The scope of the EEP phase 3 projects shall also include the provision of streetlights within the university campuses, a renewable training program for electrical students as well as provide power to the rural communities surrounding the universities in the long run. The university mini grids will use solar off-grid system ranging from 1 MW to 10 MW and shall be implemented in phases.

The socio-economic benefits attached to this rural electrification access intervention are significant and largely impacts not just the power, education and healthcare sectors but also provides as a measure to ensure Nigeria achieves its targets as contained in Nigeria's Nationally Determined Contributions (NDCs) under the Paris Agreement.

The EEP is a key programme to be developed towards achieving the objectives to the Power Sector Recovery Program. The Federal Executive Council has successfully approved the PSRP on the 22nd March 2017.

Towards ensuring best practice and compliance with the NEP Environmental and Social Management Framework (ESMF) and the Environmental Impact Assessment (EIA) Act, this ToR specifically focuses on (i) the acquisition of the necessary Ministry of Environment approvals, through developing and furnishing the Ministry with Environmental and Social Impact Assessment (ESIA) required for the implementation of the EE projects under the Rural Electrification for the off-grid and in particular the PV

solar systems. and (ii) achieving compliance with African Development Bank's Integrated Safeguards System.

3 STATUTORY LEGAL AND ADMINISTRATIVE FRAMEWORK

The statutory (legal and administrative) frameworks within which the consultancy activities shall be executed are provided in the following regulations, guidelines and standards (Note: these regulations are not exhaustive):

- African Development Bank's Integrated Safeguards System.
- The regulations, guidelines and standards of the Federal Ministry of Power as it concerns high voltage power transmission in Nigeria.
- All International Conventions/Treaties on Environmental Protection/Social Welfare to which Nigeria is a party.
- The regulations, guidelines and standards of the Federal Ministry of Environment concerning power generation and transmission activities in Nigeria.
- The regulations, guidelines and standards of the various State Ministries of Environment and Social Welfare.

4 OBJECTIVES OF THE ASSIGNMENT

The objective of this consultancy is to prepare an Environmental and Social Impact Assessment (ESIA) for power systems constructed under the Energizing Education Program (EEP) component, in line with the requirements of the Federal Government of Nigeria and the African Development Bank's Integrated Safeguards System to ensure that any adverse effects on the environment are properly mitigated.

Moreover, this study is scheduled to be undertaken at the same time with the Front End Engineering Design (FEED) stage of the proposed EEP as the ESIA will be aiming at identifying the key environmental issues at the conceptual design phase so as to enhance where possible "alternative designs and process".

By so doing, the ESIA team will provide environmental information to the engineering team at a very early stage of the basic engineering process for a successful integration of the Best Available Technologies (BAT) and control measures to ensure the Project's environmental performance. The results of the ESIA study are intended to be subsequently used during the Detailed Engineering, Procurement and Construction (EPC) stage of the project.

The successful consultant shall work closely and report to the Managing Director of the Rural Electrification Agency (MD-REA) through the Environmental & Social (E&S) team of the NEP Project Management Unit (PMU), to achieve the key objectives of the assignment, which shall include:

- I. The specific activities, which the ESIA is meant to address and cover includes:
 - Project design;
 - Construction; and
 - Operation of the university mini-grids and associated infrastructure.

- II. Obtain all E&S related government required approvals and licenses and ensure full compliance of the project to relevant legal, regulatory, and other E&S requirements;
- III. To consider project induced environmental and social impacts, whether they be adverse or positive impacts, including impacts on people living with disability, and identify means to either eliminate or minimize the adverse impacts whilst at the same time seeking to enhance the positives;
- IV. Document the ecological and socioeconomic baseline conditions of the study area and the affected communities;
- V. Determine the potential assets, to be affected directly by the project activities;
- VI. Classify the types of assets to be affected by project activities (e.g. crops, farmland, structures, traditional sites graveyards, shrines etc);
- VII. Conduct a Social Survey of the respective project location/Sites and adjoining surroundings including:
 - To describe the Social environment (socio-cultural characteristics; various communities, languages, cultural beliefs/practices, occupation, means of livelihood, settlement pattern, gender issues, etc) of the project area;
 - Identify any vulnerable groups, such as women and people with disabilities who may need special assistance or support;
 - Identification of any communities or households that will need to be resettled arising out of implementation of the investment;
 - Organize gender disaggregated stakeholder consultations before, during and at the close of the project to capture the concerns of the various stakeholders about the project including GBV (limited to desk review e.g the country portfolio GBV assessment report): - this shall include but limited to distribution of questionnaires and other information gathering techniques);
 - Document the results of the consultations;
 - Document the land tenure systems in the respective project areas and highlight any legacy issues pertaining to the initial acquisition of the Land of the respective project sites;
 - Include detail land characteristics and use (i.e., topography, soil characteristics, terrain stability and susceptibility to erosion or landslip, existing land uses occurring at the proposed site, and existing surface characteristics of the surrounding area). Further, existing land uses occupying the surrounding area should be delineated; particularly for those land uses which would be sensitive to the project, and which could contribute to cumulative effects on local resources;
 - Review all relevant documentation pertinent to the conduct of this assignment;
 - Include in the ESIA final report detailed Environmental and Social Management Plan;

- Communicate the concerns captured in 5h above to the REA-PMU through the appropriate channels to be established and incorporate same in the progress reports;
- VIII. Conduct stakeholder engagement including engagement, including grievance redress mechanism (GRM), with women and people living with disability in the engagement process.
- IX. Meet the requirements or recommendations of the applicable national and international regulations and standards;
- X. Be guided by the African Development Bank's Integrated Safeguards System.
- XI. Consultation and communication with relevant Regulatory Agencies/Stakeholders at the Federal, State and Local Government levels on the proposed Project (disaggregated according to gender and disability inclusion), including:
- Federal Ministry of Environment,
 - Federal Ministry of Women, Youth and Social Development
 - State Ministries of Environment
 - State Ministries of Youth and Social Development
 - Respective Local Government Councils
 - State Environmental agencies
 - Community Based Organizations, (Civil Society, NGOs) in the affected States.
- XII. Liaise with the E&S unit of the PMU to obtain final ESIA approval from the Federal Ministry of Environment.

5 SCOPE OF THE ASSIGNMENT AND GENERAL APPROACH

The Consultant, who shall be duly registered with the Federal Ministry of Environment, towards achieving the objectives noted under section 4 above, shall carry out the following activities:

- I. **Desktop review and Mapping:**
 - Issuance of Information Request Sheet
 - Gathering of relevant project and environmental documents
 - Desktop review of relevant documents
 - Initial Identification and analysis of Stakeholders, with priority on affected communities
 - Preparation of survey maps
 - Preparation of detailed work plan
 - Preparation of draft survey tool
- II. **Field Data Gathering and Laboratory Analysis**
 - Stakeholder meetings

- Baseline environmental data gathering
- Land-use mapping
- Biophysical surveys (ecology, air quality, soil/water quality, etc.)
- Social baseline information including gender and disability dynamics of the project area
- In-depth interview sessions, focus group discussions and questionnaire administration
- Transportation and traffic surveys
- Identification of potential specific project affected groups vulnerable groups/persons/households people living with some form of disabilities
- Laboratory analysis in a laboratory, which should be fully accredited by the FMEnv.

III. **ESIA Inception and Draft Report Writing**

- Detailed baseline descriptions
- Preparation of additional maps
- Identification of environmental and social aspects and impacts
- Analysis of alternatives
- Identification of measures needed for compensation and livelihood restorations, including any further plans that need to be prepared
- Draft ESIA

IV. **Final ESIA Report Writing and Regulatory Activities**

- Submission of Draft ESIA Reports to the FMEnv and African Development Bank
- Draft Final ESIA Reports to be reviewed by the FMEnv
- Preparation of Draft Final ESIA Reports to APT via the E&S unit of REA-PMU
- E&S unit of PMU reviews Draft Final ESIA Reports
- Submission of Final ESIA Reports to the FMEnv
- Payment of final regulatory fees
- Issuance of ESIA Approval Letters by the FMEnv

6 **REPORTING AND DELIVERABLES**

The Consultant is expected to work closely and report to the E&S unit of the PMU and, members of the Advisory Power Team towards successfully executing the assignment.

Schedule: The following reports shall be submitted by the Consultant to the Rural Electrification Agency:

#	Deliverables	Timeline (After contract signing in weeks)	Payment (%age of Total Remuneration)
1.	Inception Report: - This should include methodology and work plan with clearly defined strategy for carrying out the assignment with timelines for the various outputs. The report should include:	Week 2- 8	30

	<p>Detailed Project including plan for the on-site activities Complete Work plan document Draft Survey Tools The Consultant must submit (3) hard copies and a soft copy of the inception report. Progress Report: An update on the progress of the Baseline survey and plans for completion of the survey and next activities.</p>		
2.	<p>2nd Progress Report: - Presentation of the result of consultations, questionnaires and other information collected from the field to include. Land Surveys Certified Survey Plans for each of the Phase 2 Projects Draft ESIA Report for each of the Phase 2 Projects Draft ESIA Report: - A draft report containing detailed compilations of the Inception to the 2nd Progress report and containing all the various sections of a good ESIA.</p>	8 - 16	30
3.	<p>Draft Final ESIA inclusive of detailed ESMP Report for each of the phase 2 project In house Panel Review: - Presentation of the ESIA at a Panel to be held by the Federal ministry of Environment. ESIA certification and approval letters from the FMEnv for each of the phase 2 project Draft Final ESIA report as approved by the FMEnv will be produce for each of the institutions as covered in this TOR.</p>	16-24	40

Report Structure: In accordance with the detailed ESMF prepared for the NEP, the indicative Table of Contents (ToC) of the ESIA is expected to be as follows:

Executive Summary

This section shall describe the subproject activities, critical environmental and social issues, significant findings and recommended actions.

1. Introduction

- i. Background of the subproject
- ii. Scope and objectives of the ESIA study
- iii. Study methodology in details

- iv. Limitations of the study
- v. Composition of study team

2. Policy, Legal and Administrative Framework

- i. FGN requirements and relevant legislation
- ii. African Development Bank's Integrated Safeguards System.
- iii. International agreements

3. Description of the Subprojects

- i. Background and Rational of the Project
- ii. Project Site and Location
 - Description of the location of the proposed subproject with maps
 - Project area of influence
 - Nearby communities, environmentally sensitive areas, and heritage sites (For solar mini grid buffer zone should be 1 km)
- iii. Technical Aspects
 - Description of the subproject components, permanent and temporary facilities
 - Project equipment and civil works
 - Project ownership
 - Summary of project structures and operating regime
 - Construction activities
 - Operation and maintenance
 - Manpower requirements (including local and migrant workforce)
 - Construction machinery, materials and other supplies (including estimated numbers/quantities)
 - Land filling activities (if any)
 - Power supply arrangements
 - Waste generation and disposal (including estimated quantities)

4. Baseline Environmental Conditions

4.1 Physical Environment

- i. Topography
- ii. Geological Condition
- iii. Meteorological Condition (rainfall, temperature, humidity, wind speed)
- iv. Air Quality
- v. Noise Quality
- vi. Surface and Ground water quality
 - Surface:(testing of: pH, TDS, DO, COD, BOD)
 - Ground:(testing of: pH, Arsenic, TDS, alkalinity, Cl, Fe)
- vii. Project location from flood level
- viii. Soil Quality
- ix. Water resources
- x. Agro-ecological zones within project area of influence
- xi. Seismicity
- xii. Climate change and natural disasters
- xiii. Land use

4.2 Biological Environment

- i. Bio-ecological environment
- ii. Flora and Fauna
- iii. Protected areas
- iv. Terrestrial Ecosystem, Protected areas and red book species
- v. Vulnerability to Climate Change and Natural hazard
 - Explain in detail about how the project will be affected by the climate change impact
 - Explain how the project is vulnerable to various natural calamities including flood, earthquake, drought, cyclone etc

4.3 Baseline Socio-economic Conditions

- i. Distribution of population in the project area in terms of religion, age, sex, ethnicity, income, household size, occupational patterns and their relevance with the project, poverty
- ii. Project land
- iii. Land use and ownership (including traditional use and ownership)
- iv. Cropping and/or grazing patterns
- v. Vulnerability of the Affected Peoples (APs)
- vi. Employment
- vii. Livelihood
- viii. Physical and cultural resources (school, health post/ hospital, college, temple, monasteries etc.) in the project area
- ix. Communication facility
- x. Local amenities

5. Analysis of Project Alternatives

- i. Reason to choose the technology
- ii. Without project alternative
- iii. Site Alternative
- iv. Distribution line routes
- v. Other temporary and permanent facilities

6. Stakeholder engagement including Grievance Redress Mechanism

Stakeholder engagement process focusing on free, prior and informed consultation (FPIC) shall be conducted with the community and other stakeholders, and take into account modalities of vulnerable and marginalized communities may be involved. The consultation shall include prior disclosure of information in a manner accessible and understandable to communities, key informant interviews, focus group discussion (male& female, youth) and public consultation. The consultation shall be documented with required facts, figures and evidence including participant list with contact details, photographs. Information shall be disclosed as per the requirement of National Regulations and the African Development Bank's Integrated Safeguards System. This section shall describe the grievance redress mechanism. The standard GRM of REA will support but not replace grievance mechanisms established at subproject level.

7. Anticipated Environmental and Social Impacts and Mitigation Measures

- i. General
- ii. Area of Influence (Aol)

iii. Pre-construction Phase

- Land use / land filling
- Flood Hazards

iv. Construction Phase, Operational Phase and Decommissioning Phase

- Visual Amenity
- Birds and Bats Mortality
- Air Quality
- Noise
- Soil
- Water Resources
- Terrestrial Ecology
- Waste Generation
- Occupational Health and Safety
- Community Health and Safety
- Vulnerable Community
- Gender-based violence and sexual exploitation
- Employment Opportunities
- Traffic Management
- Archaeology and Cultural Resources
- Cumulative and induced impacts

v. Summary of Anticipated Impacts

8. Environmental and Social Management Plan (ESMP)

This section deals with the set of mitigation management measures to be taken to avoid, reduce, mitigate or compensate for adverse environmental, occupational and social impacts with the institutional arrangement, monitoring schedule, parameters to be monitored and soon including tentative monitoring budget. It would include the following aspects:

- Types of impacts and their mitigations
- Mitigation measures
- Environmental Code of Practices (to be attached to bidding documents and/ or contracts)
- Monitoring Plan
- Communication and documentation
- Cost of ESMP
- Integration with Project (contract clauses, others)
- Grievance resolution process
- Plan for stakeholder/ community engagement during pre-construction, construction, and operation phases; the plan should include community mobilization approach from both social and commercial perspectives.

9. Environmental and Social Benefits

This section will discuss how the project will provide benefits in environmental sector and social life, directly and/or indirectly.

10. Conclusion

This section shall provide the conclusion drawn from the study.

7 COMPETENCY AND EXPERTISE REQUIREMENT

The Consultant will have the following qualifications, expertise & experience with not less than 4 for supporting staffs and 15 years of graduation with minimum of 10 years working experience in related field for the team leader:

- In-depth understanding of, and experience with, the existing regulatory regime and personnel associated with review and approval of environmental projects in Nigeria;
- Experience in undertaking environmental and social assessment in compliance with African Development Bank's Integrated Safeguards System.
- Extensive experience in supporting and undertaking the production of reports and related documents that are comprehensive, understandable and address the needs of the regulatory and review processes;
- In-depth understanding of key issues that are of importance to all stakeholders, including resettlement and livelihood restoration issues in the Nigerian context, and regulators and a proven track record in effectively engaging these groups in the project processes through consultation;
- A proven record and experience of several successfully completed environmental and social projects in Nigeria; and
- Extensive experience working with industry as well as State and Federal Government MDAs and stakeholders on environmental matters in Nigeria.
- In-depth understanding of, and experience with, the existing regulatory regime and personnel associated with surveying projects and practices in Nigeria;
- A proven record and experience of several successfully completed surveying projects in Nigeria;
- With respect to Land Surveys:
 - Experience working with industry as well as State and Federal Government MDAs and stakeholders in Nigeria;
 - Excellent written and verbal communication skills;
 - Efficient and effective time management.
- Evidence of having carried out similar assignments with the African Development Bank or any International Donor will be an added advantage

Education: The Consultant shall provide experienced personnel to carry out the assignment with the following minimum qualifications:

SN	Personnel – ESIA	Qualifications	Experience in years
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1	Team leader	MSc in Natural Sciences or Engineering –	<ul style="list-style-type: none"> – At least 15 years' post-graduation experience, – 10 years specific experience in the in preparation of environmental and social impact assessment report. – Participation in similar role in at least two multi-lateral funded projects in the last 5 years.
2	Social Expert	Advance degree in environmental sciences or a similar discipline	<ul style="list-style-type: none"> – At least 10 years' post-qualification experience. – Seven (7) years' Specific experience in the Preparation of EIA report preparation. – Participation in similar role in at least two multi-lateral funded projects in the last 7 years.
3	Air quality and Noise/Project Manager	MSC in environmental Sciences or similar discipline.	<ul style="list-style-type: none"> – At least 10 years' post-graduation experience. – Six (6) years' Specific experience in air quality measurement. – Participation in similar role in at least two multi-lateral funded projects in the last 6 years including World bank ESIA preparation.
4	Sociologist	BSc Sociology/ Anthropology	<ul style="list-style-type: none"> – At least 8 years' post-graduation experience. – Six (6) years' Specific experience in similar assignment. – Participation in similar role in at least two multi-lateral funded projects in the last 5 years including World bank.
5	Terrestrial Ecology	BSc in Botany or other	<ul style="list-style-type: none"> – At least 7 years' post-graduation

	specialist	related courses	<p>experience.</p> <ul style="list-style-type: none"> – Five (5) years' Specific experience in similar assignment. – Participation in similar role in at least two multi-lateral funded projects in the last 6 years including World bank.
6	Mapping/GIS/Traffic specialist	BSc. GIS/Remote Sensing or other related courses	<ul style="list-style-type: none"> – At least 8 years' post-graduation experience. – Six (6) years' Specific experience in similar assignment. – Participation in similar role in at least two multi-lateral funded projects in the last 6 years including World bank. – Evidence of familiarity with GIS, Arc Info, AutoCAD and other Geo Spatial Design Software
7	Social Survey/Public Consultation officer	BSc in social works or Sociology or another related courses	<ul style="list-style-type: none"> – At least 6 years' post-graduation experience. – Four (4) years' Specific experience in similar assignment. – Participation in similar role in at least one multi-lateral funded projects in the last 6 years including the World bank.
8	Soil Studies specialist	BSc in environmental chemistry, soil science or other related courses	<ul style="list-style-type: none"> – At least 5 years' post-graduation experience. – Three (3) years' Specific experience in similar assignment. – Participation in similar role in at least one multi-lateral funded projects in the last 5 years including the World bank.
9	Communications	BSc/HND in Political Science/Mass Communication	<ul style="list-style-type: none"> – At least 8 years' post-graduation experience. – Six (6) years' Specific experience

			<p>in similar assignment.</p> <ul style="list-style-type: none"> – Participation in similar role in at least two multi-lateral funded projects in the last 6 years including World bank.
10	Electrical Engineer	MSc in Electrical Engineering or other related courses.	<ul style="list-style-type: none"> – At least 6 years' post-graduation experience. – four (4) years' Specific experience in similar assignment. – Participation in similar role in at least one multi-lateral funded projects in the last 6 years including World bank.
11	Senior Land Surveyor	At the minimum, a Masters of Science Degree in Land Survey.	<ul style="list-style-type: none"> – At least 8 years' post-graduation experience. – Five (5) years cognate experience in land surveying and Mapping in Nigeria. – Must be a qualified (licenced) Land Surveyor. Should also have a professional certification.
12	Three supporting surveyors	At the minimum, a BSc Degree.	<ul style="list-style-type: none"> – At least 3 years' post-graduation experience. – Two (2) years' Specific experience in land Survey.

Towards, developing the land surveys required, the consultant who shall be a qualified surveyor, shall:

- Conduct site verification visits to determine current use to which the site / land is being put to
- Conduct investigation by way of searching legal records, survey records, and land titles in order to obtain information about property boundaries and ownership in areas to be surveyed;
- Conduct investigation as to the current use of land and assets by communities, even if without a formal title;
- Conduct investigation as to how the project may affect access to assets, even though without a formal title;

- Commence surveys of the Phase 2 Project sites;
- Verify the accuracy of survey data, including measurements and calculations conducted at survey sites;
- Prepare and maintain sketches, maps, reports, and legal descriptions of surveys in order to describe, certify, and assume liability for work performed. Such maps, reports etc. should include but not be limited to information on the following:
 - Ownership/title to land
 - How land is being currently used by communities, even though without a formal title
 - Information on the shape, contour, location, elevation, and dimensions of land or land features; heights, depths, relative positions, flooding history, property lines, and other characteristics of terrain; and
 - Baselines, elevations, and other geodetic measurements, longitudes and latitudes of important features and boundaries in survey areas using theodolites, transits, levels, and satellite-based global positioning systems (GPS).
- Apply to the National Institute of Surveyors (NIS) for a beacon or special number for the survey documentation.
 - Satisfy requirements of the NIS
 - Submit survey documentation to the Surveyor-General's office through the NIS

8 COMPETENCY AND EXPERTISE REQUIREMENT

In addition to the project supervisory and other responsibilities contained in this assignment, the client shall provide the Consultant with the following project documents:

- Relevant project documents, design drawings, maps, route surveys.
- Support in interacting with relevant stakeholders

9 DURATION OF THE ASSIGNMENT

The Consultant shall prepare time schedules to be submitted to the E&S unit of the PMU in accordance to this TOR. The time frame for the entire consultancy services is within six (6) months of contract signing.

10 TRANSFER OF KNOWLEDGE

The Consultant shall closely work with E&S unit of the PMU and other members of the PMU to transfer all relevant knowledge required.

11 SELECTION METHOD

Consultant will be selected in accordance with the Least Cost Selection (LCS) set out in the AFDB procurement framework for group funded operations, October 2015.

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12 COPYRIGHT AND OWNERSHIP

All materials, finished and unfinished, including the ESIA and certified Land Surveys, will be owned by the Rural Electrification Agency. The Consultant shall maintain confidentiality of all information received from the Rural Electrification Agency concerning all data and insights obtained during the course of the project.