



**ECREEE**  
Towards Sustainable Energy

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## **TERMS OF REFERENCE**

**Individual Consultant**  
**Project Manager**

**Development of ECOWAS Renewable Energy and  
Energy Efficiency Master Plan and Pipeline of  
Projects**

**May 2025**

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**Expected Start Date:** Immediately after Signing the Contract

**Duration of Assignment:** Six (6) months

**Duty Station:** Home based

## 1. INTRODUCTION

### 1.1. Partner countries

Economic Community of West African States (ECOWAS) Member States

### 1.2. Type of contract:

International Consultancy

### 1.3. Contracting Authority

ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)

### 1.4. Background Information

#### *1.4.1. ECOWAS Energy Sector*

The ECOWAS region faces major energy challenges, with 180 million people lacking reliable electricity and heavy reliance on imported fuels and biomass, worsening energy poverty and environmental strain. Despite having abundant solar, wind, and hydropower potential, underinvestment, grid inefficiencies (21.5% losses), and political instability hinder progress. These energy gaps also impact water and food systems, for example, erratic power limits irrigation, while biomass dependence drives deforestation.

To tackle this, ECOWAS has created agencies including the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) to help address these energy gaps through the promotion of renewables and efficiency. While fossil fuels still dominate short-term plans, the region aims to transition to renewables without sacrificing development. There is a broad consensus in the region on the need to leapfrog fossil fuels as the critical energy driver for development in the long term, although governments still see fossil fuels as key to the continent's economic growth in the short term. The ECOWAS region has the potential to make this leap without compromising development goals for its people. Reducing dependence on fossil fuels while ensuring equitable and sustainable development has been an enduring vision of member states, opening up opportunities for energy efficiency (EE) and renewable energy (RE). This is where ECREEE has a crucial role to play.

#### *1.4.2. Status of ECREEE and its Energy Efficiency and Renewable Energy Initiatives*

ECREEE was legally established by ECOWAS in 2008 at the 61st Session of the ECOWAS Council of Ministers, held in Ouagadougou on 29 November 2008, through Regulation C/REG.23/11/08. This Regulation provided the legal basis for the establishment of the ECREEE in 2010 in Praia, Cape Verde, with the support of the Austrian and Spanish Governments and the technical assistance of UNIDO, following the signing of the Headquarters Agreement between ECOWAS and the Government of Cape

Verde. Against this background, ECREEE's legal mandate is to develop and promote RE and EE in the region.

To achieve its objectives, ECREEE has

- I. Developed and initiated, inter alia, (i) the ECOWAS Energy Efficiency Policy (EEEP); (ii) the ECOWAS Renewable Energy Policy (ERP); (iii) the ECOWAS Bioenergy Policy (EBP); (iv) the ECOWAS Hydrogen Policy (EHP); (v) the ECOWAS Mobility Programme; (vi) the ECOWAS Gender Mainstreaming in Energy Access Policy; and, finally, the West African Clean Energy Corridor Programme.
- II. Assisted ECOWAS Member States to adopt and implement several action plans to achieve the key milestones of the objectives set out in these policies and through the judicious implementation of these RE and EE action plans, projects and programmes, ECREEE has today become the focal point for RE and EE in the ECOWAS region. It coordinates the efforts of various stakeholders, builds the region's internal capacity in RE and EE, works with governments to harmonise and implement these policies, develops RE and EE programmes, and mobilises resources from around the world for RE and EE projects.

Despite these efforts, which have advanced the region in terms of RE and EE, the region still has the lowest rates of access to electricity today, with around 53% of the population and 10% of rural dwellers having access to electricity in 2023. This calls for a redoubling of efforts by energy sector agencies including ECREEE. ECREEE therefore intends to increase support to Member States for the development of RE and EE projects and programmes with high socio-economic impact in off-grid and on-grid areas through the operationalisation of its Strategic Plan. At the operational level, the areas of the Strategic Plan will be broken down as follows:

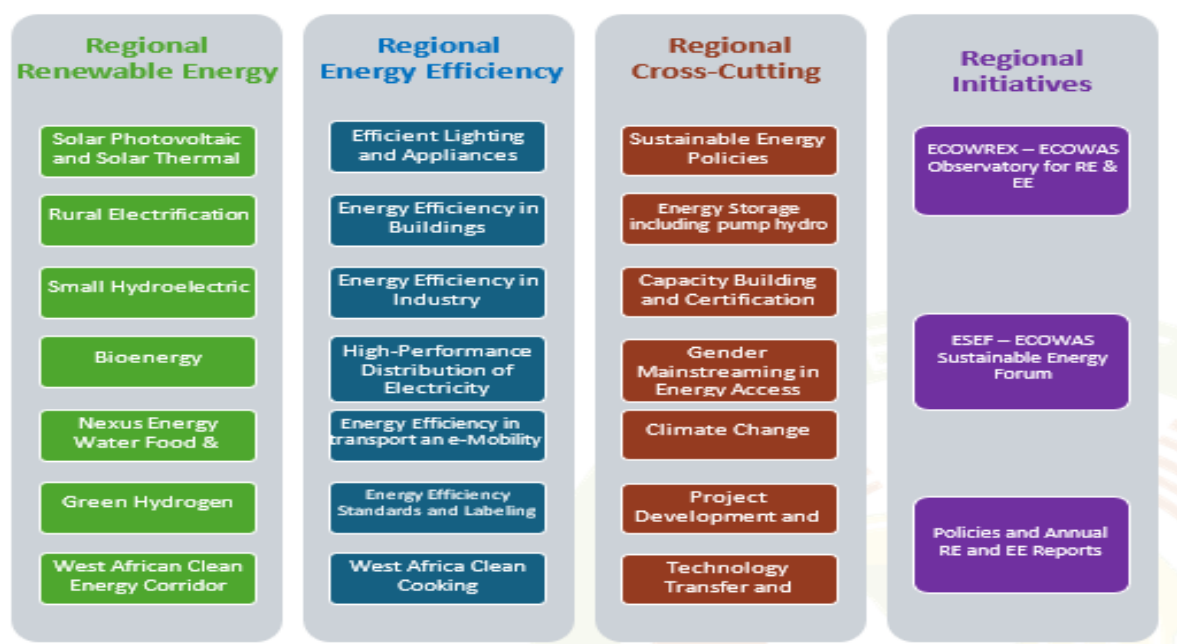


Figure 1: Areas of operationalization as part of the 2023-2027 Strategic Plan

Additionally, with support from the Commission, ECREEE plans to develop an ECOWAS RE and EE Master Plan. This initiative will guide ECREEE's interventions, enhance project bankability for Member

States through pre-investment studies, and facilitate full investment realization across ECOWAS Member States.

**Therefore, ECREEE seeks support of a Project Manager for the development of a 10-year ECOWAS RE and EE Master Plan (2026-2036) to be presented for adoption by Experts and adoption by the Authority of Heads of States and Government. The adopted Master Plan will be included in the ECOWAS Strategic Infrastructure Master Plan led by PPDU.**

## 2. OBJECTIVE, PURPOSE & EXPECTED RESULTS

### 2.1. Overall objective

The objective of the TOR is to engage a qualified and experienced international consulting firm **to develop Master Plan of Energy Efficiency (EE) and Renewable Energy (RE) including Nexus Pipelines** that will guide the region the short (0-3 years), medium (3-6 years) and long terms (6-10 years) towards improved energy efficiency and increased use of renewable energy sources, thereby contributing to economic growth, energy security and environmental sustainability. This regional Plan will enable the various stakeholders in the sector in the region (public authorities responsible for RE and EE including Ministries in charge of Energy, utilities, donors, private sector, ECOWAS officials, etc.) to have a clear, comprehensive and coherent vision of the future development of EE and RE in terms of investment and pre-investment needs and provide a rational basis for decision making.

### 2.2. Purpose

The specific objectives of the study are:

**A. Task 1: To takes stock and identify all RE and EE projects, both at national and regional levels for the Master Plan.**

NB: The aim is putting the RE and EE together into an overall strategic investment and pre-investment needs (Technical Assistance).

*NB: The projects should take into account, inter alia, the following policies developed by ECOWAS/ECREEE:*

- ECOWAS Energy Policy that was adopted in 2023 taking into account new institutional arrangement as well the period of implementations proposed with the view of addressing the new challenges facing the region, in particular, the fight against poverty, global warming, poverty reduction, universal access to energy services and sustainable development.*
- ECOWAS Energy Efficiency Policy (EEEP), adopted in July 2013 has inter alia following targets: phase out inefficient incandescent lamps, by 2020; reduce average losses in electricity distribution from the current levels of 15 - 40% to the world standard levels of below 10% (supply and demand side), by 2020; achieve universal access to safe, clean, affordable, efficient and sustainable cooking for the entire population of ECOWAS, by 2030; develop and adopt region standards and labels for major equipment by 2020; develop and adopt region-wide efficiency standards for buildings (e.g. codes); and create instruments for financing sustainable energy, including carbon finance.*
- ECOWAS Policy on Renewable Energy, adopted in July 2013 has inter alia following targets: increased market penetration for renewable energy connected to the network, to 10% for*

*the future 2020 strategy and to 19% by 2030 strategy (even without taking into large hydroelectric power generation);*

- *ECOWAS Bioenergy Policy has inter alia following targets for the modern bioenergy sector: increasing the share of population using alternative modern fuels for cooking to 41% by 2030 and efficient charcoal production increase to 100% by 2030.*
- *ECOWAS Policy for Gender Mainstreaming in Energy Access has inter alia following targets: ensure that women and men have equal (50.50) opportunities to enter and succeed in energy related fields in the private sector by 2030.*
- *ECREEE Strategic Plan (2024-2027) as well as Projects and programmes on Battery Energy Storage Systems (BESS), ECOWAS Electric Mobility, West African Clean Energy Corridor and Pumped Storage, ECOWAS Hydrogen Policy.*
- *Action Plans of countries and other projects implemented by Donors including AfDB, World Bank, KfW, GIZ, UNIDO with ECREEE or other sector agencies at regional or national level.*

NB: ECREEE will support the data collection from member states.

## **B. Task 2: Identification of RE and EE projects covering and around the defined areas of the Strategic Plan and the categories of investment and pre-investment or technical assistance needs.**

To ensure full alignment with ECREEE's strategic objectives, the Master Plan will incorporate a comprehensive portfolio of projects across the following key thematic areas, with technical specifications and implementation targets where applicable. Identify and define projects around (NB: projects will be requested from the ECOWAS member states with the support of ECREEE):

### **Renewable Energy Related Projects**

- *Solar Energy Projects*
  - *Decentralized (1-100kW) and utility-scale (1-100MW) solar PV systems*
  - *Solar thermal applications for industrial/domestic use (up to 10MW thermal capacity)*
- *Hydropower Development*
  - *Run-of-river and mini-grid hydro projects (up to 100MW capacity)*
- *Bioenergy Solutions*
  - *Biomass/biogas plants (up to 100MW) for agricultural waste valorization*
  - *Waste-to-energy facilities for urban/rural electrification (up to 100MW)*
- *Green Hydrogen Initiatives*
  - *Pilot production plants (up to 5MW electrolyzers) for transport/industrial decarbonization*
- *Rural Electrification*
  - *Hybrid mini-grids (solar/wind/hydro/bioenergy, up to 500kW)*
  - *Standalone solar systems for healthcare/education facilities*

### **Energy Efficiency Related Projects**

- *Infrastructure Upgrades*
  - *Distribution loss reduction projects (target: <10% technical losses)*
  - *Prepaid and smart metering rollout (prepaid/AMI systems)*
- *Sectoral Efficiency Programs*
  - *Building retrofits (ESCO models for public/commercial buildings)*
  - *Industrial efficiency (motor systems, heat recovery)*
- *E-Mobility Transition*
  - *EV charging network (up to 100 fast-charging stations in short to medium)*
  - *Battery swap facilities for urban/rural transport*
- *Grid Modernization*

- Battery storage systems (up to 100 MW) for renewable integration
- Smart grid technologies (AMI, demand response systems)
- Clean Cooking Access
  - LPG/ethanol distribution networks
  - Improved cookstove programs (up to 1 million households)

#### **Cross-Cutting Related Projects**

- Nexus Projects
  - Solar-powered irrigation (up to 100 hectares under management)
  - Circular economy waste valorization
- Capacity Development
  - Certification programs for renewable energy and energy efficiency experts
  - Project preparation facilities for private developers (eg. ECOWAS RE and EE Facility)
- Innovation Ecosystem
  - Technology demonstration hubs projects

- C. Task 3: Propose for the projects as well as (i) an investment guideline (investment and pre-investment) component that will be added to the Plan, (ii) Fiche of Projects for all projects identified and (iii) Aide Memoire and Projects Matrix including schedule for their implementation, as well as (v) the mobilization of funds strategies starting in 2026.**

*NB: The detailed Project Information Sheets are expected with key information, such as investment details, market data, cost estimates, and environmental/social impact data. This will help funders conduct an initial assessment. This could be done for at least the priority projects. ECREEE may provide a template or review proposals from consultants for this task.*

### **2.3. Results to be achieved by the Consultant**

The expected outcome of the study is to develop a Pipeline Projects for the Master Plan. The specific expected results are as follows:

**Output 1: Inputs into the reports on assessment of investment opportunities:** (i) With support to the Project Manager, evaluate the status of implementation of Member States' RE and EE Action Plans, programmes and projects implemented by ECREEE, WAPP, ECOWAS and the current ECREEE Strategic Plan (2023-2027) and clearly identify the lessons learnt in order to incorporate them into the proposed Master Plan to be developed. (ii) Identify the challenges and critical factors affecting the projects and recommend a remedial action plan to be implemented to address the cross-cutting issues.

**Output 2: Identification and prioritization of energy efficiency, renewable energy and Cross-Cutting-nexus, projects:** Identify and prioritize projects on the basis of **one or more key performance indicators assigned to each investment project, enabling their evaluation and identifying projects that can be easily invested in or prepared through pre-investment.**

**Output 3: Development of a plan for pre-investment and investment in the identified projects, including financial, technical, and regulatory considerations:**

- *List existing viable and new projects in the region covering the RE and EE including Cross-cutting as above.*

*NB: The energy efficiency projects to be collected by ECREEE with the support of the consultant will include renewable energy and energy efficiency projects (distribution performance improvement projects e.g. distribution losses, efficiency of electrical equipment, metering, digitisation, IT and business process optimisation, financial management, accounting, warehousing, planning and sales & marketing) and include them in the category of investment and pre-investment technical and financial assistance needs.*

- *For RE, this should include off-grid and on-grid projects covering the RE areas in Figure 1 above. In addition, if deemed necessary, formulate new priority projects also in the category of investment and pre-investment technical and financial assistance requirements.*
- *This must include a fiche/profile of projects for all identified projects and a matrix of projects/aide memoire including a timeline for their preparation and implementation to be presented to donors (technical and financial partners).*

#### **Output 4: A comprehensive implementation strategy, including capacity-building measures and stakeholder engagement plans:**

Formulate a new investment guideline and recommend strategies for the implementation as well as the mobilization of funds for the national, community and regional projects

### **3. ASSUMPTIONS & RISKS**

#### **3.1. Assumptions underlying the project**

The Specific risks and mitigating measures for the project are

Risks/Assumptions	Mitigation Measures
Outbreak of disease in any of the West African countries	Support from the ECREEE National Institutions and Stakeholders in the countries to collect relevant data
Political and social instability in the sub region	This is less likely. ECOWAS is likely to resolve political crisis timeously. However, in case this persist for longer than expected there might be a revision of the timetable for implementation
Stakeholders not cooperating with Consultant	ECREEE will intervene through organisational committees to resolve any difficulty

### **4. SCOPE OF THE WORK**

#### **4.1. General**

##### *4.1.1. Description of the assignment*

To develop the " ECOWAS Energy Efficiency and Renewable Energy Master Plan " to enable the various stakeholders in the region to have a clear, comprehensive and coherent vision of the future development of on-grid and off-grid facilities in terms of investment and pre-investment needs and provide a rational basis for decision making and implementation. **Several RE and EE projects including Cross-cutting projects have identified through studies, master plans and action plans and have already been developed, and the Individual Consultant should first focus on these developed pipelines of projects to be provided by the countries and only propose new projects on a reasonable basis.**



#### 4.1.2. *Geographical area to be covered*

The project will cover all ECOWAS member countries.

#### 4.1.3. *Target groups*

Ministries, Public Institutions in charge of EE and RE, ECREEE National Focal Institutions utilities, regulatory bodies, sub regional organizations (ERERA, ECREEE, WAPP, OMVS, SOGEOH, OMVG, Mano River Union, ABN and TRANSCO - CLSG), Utilities (focus on other national utilities not to be covered by KfW (KfW is covering SBEE (Benin), CEB (Togo), CIE and CI-ERNIGIES (Cote d'Ivoire), Senelec (Senegal) and LEC (Liberia)) and any other organization involved in the energy efficiency and renewable energy, electricity sector, including the private sector.

### 4.2. Specific work

The various actions to be undertaken in the course of this assignment include:

- A. To take stock of the implementation of the Action Plans, Master Plans, the existing ECREEE Strategic Plan etc, to analyse the reasons and causes that have led to the current gaps identified in relation to the objectives of the policies and to propose an approach to take into account the lessons learnt in the development and implementation of an investment framework of project pipelines and a new pre-investment and investment Plan for EE and RE;
- B. To identify, investigate and select existing projects and based on studies, cross-cutting, EE and RE investments projects and identified or new projects that need pre-investment support in the region after performing a scoping study for assessment of needs. Identify projects covering the areas described in figure 1. In addition, for EE include identified projects that will support reduce commercial losses of utilities (Reorganisation of customer handling and relation in connection with digitalisation of networks, geographical tagging, integrated metering, & billing systems and training);
- C. To select projects and assessment for implementation with various stakeholders, including utilities, regulators, ministries of energy, which will be characterised in short project profile with information and characterised as investment and pre-investment needs (Technical Assistance) projects including:
  - i. Project background description
  - ii. Project proposed by
  - iii. Leading project development partner
  - iv. Other project development partners
  - v. Total project amount /cost
  - vi. Project timeline
  - vii. Potential financial partners
  - viii. Maturity of the project
  - ix. Strategic alignment and regional dimension of the project
  - x. Economic and financial aspects
  - xi. Environmental and social impact
  - xii. Risks

Project Profile/Fiche are also needed as part of this deliverable. The Profile/Fiche should include elements listed in the Annex 1

- D. To identify projects that will cover all renewable energy (large, small to mini scale) projects as well as the energy efficiency (EE) projects identified in the region. Both EE and RE including cross-cutting should cover the areas of operationalisation outlined in the Strategic Plan of ECREEE.

- The RE projects should cover the areas of operationalisation outlined in the Strategic Plan of ECREEE. It should include but not limited to the renewable energy corridors of West African Clean Energy Corridor (WACEC) initiative in the region:
    - i. the Hydropower Corridor projects (small);
    - ii. the Solar Energy Corridor projects;
    - iii. the Wind Energy Corridor projects.
  - i. The RE projects should cover the regional clean of projects:
    - i. Pico/micro hydropower projects
    - ii. Small/ mini-grid/micro/pico solar energy projects
    - iii. Energy Water for Food projects.
  - The identified EE projects should cover the areas of operationalisation outlined in the Strategic Plan of ECREEE and the fields of development in industry including utilities, etc should include but not be limited to:
    - i. Grid optimisation, pre-paid meters, application of smart meters, demand management, smart grids,;
    - ii. Digitalisation of processes (billing, payment and management);
    - iii. Energy quality and reliability;
    - iv. Financing of e.g. complementary IT-tools for financial management, accounting, warehouse, planning and sales & marketing etc;
    - v. Steps towards implementation of “Smart Grid” technologies in view of e.g.:
      - Furnishing of e.g. distribution transformers with low-cost temperature, oil level and current sensors connected via GSM allowing online tracking of the performance and allowing immediate interference in case of violating pre-set reference values;
      - Optimising network performance by harmonizing energy demand and generation;
      - Dispatching of RE power plants having their typical performance pattern; Improve anticipation of the demand and means to control the demand.
  - Productive use of energy and energy saving;
  - Energy efficiency in industry
  - Energy efficiency in buildings
  - Efficient lighting and appliances
- E. Recommend guidelines, implementation strategies of the priority investment projects taking into account the new projects, indicating the prerequisites including the mobilisation of fund strategy for their implementation and their respective advantages and disadvantages.
- F. Ensure that the projects to be identified should comply with the following requirements: (i) Prioritizing of projects in national strategic documents; (ii) reduce greenhouse gas emission; (iii) contribute to improve gender equality; (iv) categorised higher than “B” in terms of environmental and social impacts (E&S Categorisation).

#### *4.2.1. Data/Information on EE and RE Projects Collection*

- i. The first stage of data collection will enable the Consultants to, among others gather to request countries to share their programs and approved projects including all other existing relevant documentation in Member States on policies and actions plans. ECREEE will facilitate and provide the first data collection for the consultant.
- ii. The second stage of data collection (Desktop) consists of consulting documents relating to the subject matter available such as policies, plans and projects documents and fill the gap. These documents will enable the Consultant to

understand and internalize the vision, mission, strategy, programs and action plans of the region.

#### *4.2.2. Analysis and Diagnosis of EE and RE Projects*

The Consultant will

- i. take stock of the progress of the various RE and EE projects in relation to the implementation timeframe (10/15 years).
- ii. Identify challenges and critical factors affecting the development of EE and RE in member states and reasons why these projects have not been implemented
- iii. Carry out a critical diagnostic analysis to identify practical solutions to these challenges and propose how these projects can be moved forward. Propose the projects now as existing (original) or new projects (improved) based on recommended lessons learned.
- iv. Select mature projects based on above mentioned criteria, EE and RE investments projects and identified or new projects that need pre-investment support in the region.

#### *4.2.3. Identification of priority EE and RE investment programme*

- i. identify, in cooperation with stakeholders, which specific EE and RE projects are critical and part of the master plan of the ECOWAS country, and propose an implementation strategy of the projects, taking into account, inter alia, political and financial constraints.
- ii. determine the scope and content of the project, including the economic and financial analysis, implementation strategies and conditions for pre-investment financing and institutional and improvements to facilitate the implementation of the projects and the classification of the projects as technical assistance and investment projects and the year of completion of their implementation.
- iii. It is required to perform a brief cost/benefit analysis to determine the economic and financial profitability of the selected project.

#### *4.2.4. Development of strategies for implementing and raising the required funding*

- i. recommend investment guidelines and implementation strategies for the priority investment EE and RE projects including strategies for the mobilization of funds .

### **4.3. Project management**

#### *4.3.1. Responsible body*

ECREEE shall be responsible for the management of the project. A Project Implementation Unit (PIU) within ECREEE will be involved in the project and report to the Executive Director of ECREEE who shall, together with the Principal Programme Officer EE, collaborate closely with the stakeholders and the consultant.

#### *4.3.2. Management structure*

ECREEE will work with the ECOWAS Directorate for Infrastructure, Energy and Digitalisation to ensure that the final master plan is approved by the highest decision-making body within ECOWAS. The review and adoption of the various reports will take place during a meeting of experts, including experts from the Ministries of Energy of the ECOWAS Member States, utilities, rural electrification, RE & EE agencies. It's expected that the adopted master plan of project pipelines will be submitted to the ECOWAS Council of Energy Ministers for recommendation to the ECOWAS Heads of State and Government for approval.

### 4.3.3. Obligations of the Consultant

The Consultant shall undertake to:

- i. Assume entire responsibility for assignment and data collection;
- ii. Undertake the study in accordance with internationally accepted norms and standards with the support of qualified and experienced staff according to the purposes of the study;
- iii. check the consistency of projects, data and information collected during the execution of his assignment;
- iv. Conduct the study diligently and in conformity with proposed and agreed implementation schedule. He shall submit reports in timely manner;
- v. Support document acquisition costs including maps, software, data and their processing;
- vi. Maintain the confidentiality of information and results obtained in the course of the study and upon completion of study return documents placed at his disposal;
- vii. In any event, the Consultant shall make every effort to maintain a permanent communication with ECREEE in the course of the study.

## 5. LOGISTICS AND TIMING

### 5.1. Start date & Period of implementation of tasks

The period of implementation of the contract will not exceed **51 person-man-day** from commencement date.

The Consultant shall propose in his submission a detailed implementation schedule for the study. In this regard, the following indicative schedule is proposed:

<b><u>Milestones</u></b>	<b><u>End Dates</u></b>	<b><u>Project Manager</u></b>
<u>ECREEE provides data (1st stage) to the consultant</u>		<b><u>Man-Days</u></b>
<b><i>kick-off meeting (Video Conference)</i></b>	So	1
Submission of the draft scoping/inception report <i>(comments will be provided through email)</i>	So + 02 weeks	2
Submission of the draft report on priority projects identified	So + 4 weeks	10
Validation and adoption meeting of report on priority projects identified <b><i>(Video Conference)</i></b>	So + 6 weeks	1
Submission of the final list of priority projects	So + 10 weeks	10
Elaboration and Submission of draft Master Plan of Pipelines of Projects including the strategies for implementation and fund mobilization	So + 14 weeks	20
Validation and adoption meeting of the Energy Master Plan of Pipelines of Projects <b><i>(In-person)</i></b>	So + 16 weeks	5
Submission of the final master plan	So + 18 weeks	2
		51 days

**NB: ECREEE will facilitate data collection. The project manager is expected to have master plan data of all the 12 ECOWAS countries. ECREEE will write officially to request the for the projects in RE, EE and Cross-cutting NEXUS.**

## 6. REQUIREMENTS

### 6.1. Key expert

The profiles of the key expert for this contract are as follows:

#### Planning Expert (Project Manager):

- An engineer (electrical or energy or equivalent) with at least 15 years' experience in the planning and implementation of renewable energy system studies and electrification projects,
- 5 experience in the development of regional master plan. An excellent understanding of the African and regional context should be an asset.
- He must have led at least two similar studies. He should have a good command of English and French.

**ECREEE partners will provide additional experts (Energy Efficiency and Water-Food-Energy Nexus Expert to support the Project Manager)**

### 6.2. Criteria for Selecting the Best Offer

Upon the advertisement of the Procurement Notice, qualified is expected to consultant is expected to submit a cover letter, Technical including CV (max 20 pages) and Financial Proposals (max 5 pages). Accordingly, the consultant will be evaluated based on Cumulative Analysis as per the following scenario:

- Acceptability and
- Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation. In this regard, the respective weight of the proposals are:
  - a. Technical Criteria weight is 70%
  - b. Financial Criteria weight is 30%

Criteria	Weight	Max. Point
Technical Competence (based on CV, Proposal and interview (if required))	70%	100
<ul style="list-style-type: none"><li>• Past experiences leading or being involved in regional Master Plan development</li></ul>		70
Financial (Lower Offer/Offer * 100)	30%	30

## 7. REPORTS

### 7.1. Reporting requirements

The deliverables shall be prepared and submitted in collaboration with the project manager and will include the preparation and submission of documents and reports within the deadlines set. The said documents and reports shall be prepared in French or English but translated into the other language

and submitted to ECREEE. ECREEE will distribute, within a specified timeframe, the reports to stakeholders. **The proposed meetings and workshops are:**

- (i) The kick-off meeting **(1 day of meeting by Video Conference)**
- (ii) Experts meeting for consideration and adoption of report on priority projects identified **(2 days Video Conference)**
- (iii) Validation and adoption meeting of the preliminary version of the Master Plan **(3 days of work In-person).**

**The cost of participation in the meeting of the consultant will be covered by ECREEE (Air Ticket, Accommodation, Meals and Per Diem).** Meeting in-person will be held in one of the cities of the region, the specific choice of which will be decided on a provisional basis.

## **7.2. Master Plan report**

The Consultant shall present within a period of 18 weeks after commencement of the studies, the Report on the Master Plan of Pipelines of Projects. All reports will be delivered in a format (with cover page, text layout and page setup) acceptable to the Client and submitted as follows:

### **❖ In draft and provisional version**

MS Word and PDF electronic version in French and English sent to ECREEE.

### **❖ In final version**

MS Word and PDF electronic version in French and English to be submitted to ECREEE.

## **8. MONITORING AND EVALUATION**

Since outputs and deliverables are clearly defined in the present ToR, quantitative indicators are not necessary. However, the ECREEE will ensure that the quality is met.

## **9. SPECIAL REQUIREMENTS AND NEXT STEPS**

The final Master Plan will further be submitted for adoption and approval at ECOWAS level. This final document will need to go through adoption by the ECOWAS Energy Ministers, ECOWAS Council of Ministers and ECOWAS Authority of Heads of State and Government.

## ANNEX 1:

### Energy Efficiency (EE) Project Information Sheet / Profile:

(EE projects to be identified in ECOWAS Member States should include but not limited to E-Mobility Infrastructure and ###number of charging stations, EE machines/appliances manufacturing, EE in Manufacturing and Industry, EE in Building and retrofitting, Industrial efficiency, Appliances/lighting, High electricity distributions and Grid optimization, smart and pre-paid meters ESCOs, Manufacturing, Digitalization, Grid Optimization, and Policy Integration etc)

#### 1. General Project Information

- a. Project Name: \_\_\_\_\_
- b. Location: \_\_\_\_\_ (Country/Region/Utility Coverage Area)
- c. Start Date: \_\_\_\_\_
- d. Duration: \_\_\_\_\_ years
- e. EE Focus Area(s): (Check all applicable)
- f. E-Mobility: # of charging stations planned \_\_\_\_\_
- g. ESCOs (Energy Service Companies): ☐ Performance contracting ☐ Shared savings
- h. Manufacturing/Industrial EE: ☐ Process optimization ☐ Waste heat recovery
- i. Building Retrofits: ☐ Public buildings ☐ Residential ☐ Commercial
- j. Grid Optimization: ☐ Smart meters ☐ Demand management ☐ Smart grids
- k. Digitalization: ☐ Pre-paid meters ☐ Billing systems ☐ SCADA ☐ Asset mapping
- l. Policy/Workforce Development: ☐ Gender inclusion ☐ Staff retention ☐ Training
- m. Other: \_\_\_\_\_

#### 2. Technical Description

Key Technologies/Measures: (Select relevant)

- a. E-Mobility: Charger types (AC/DC), power capacity, grid integration plan
- b. Digitalization:
- c. Smart metering rollout (# of meters: \_\_\_\_\_)
- d. GIS-based asset mapping
- e. Automated billing/distribution systems

- f. Remote monitoring (e.g., transformer sensors, GSM alerts)

#### Grid Optimization:

- a. Load forecasting tools
- b. RE integration strategies (e.g., solar/wind dispatchability)
- c. Peak shaving/demand response
- d. Industrial EE: \_\_\_\_\_ (e.g., high-efficiency motors, VSDs)
- e. Expected Energy Savings: \_\_\_\_\_ (kWh/year or % reduction)
- f. Baseline Data: \_\_\_\_\_ (Current energy use/inefficiencies)

#### 3. Financial Aspects

- a. Total Budget: \_\_\_\_\_
- b. Funding Sources:
- c. Utility funds ☐ Government grants ☐ Private investors ☐ International donors
- d. ESCO financing ☐ Carbon credits ☐ Other: \_\_\_\_\_
- e. Revenue Model:
- f. Tariff adjustments ☐ Energy savings sharing ☐ Service fees
- g. Cost-Benefit Analysis: Payback period \_\_\_\_\_ / IRR \_\_\_\_\_

#### 4. Environmental & Social Impact

- CO2 Reduction: \_\_\_\_\_ tons/year
- Social Benefits:
- Job creation (#: \_\_\_\_\_)
- Gender inclusion policies (% female workforce target: \_\_\_\_\_)
- Improved energy access (# of beneficiaries: \_\_\_\_\_)
- Risks: ☐ Data privacy ☐ Grid instability ☐ Workforce resistance

#### 5. Implementation Plan

- Short-Term (0–2 yrs): Pilot projects, policy drafting, stakeholder consultations
- Medium-Term (2–5 yrs): Full deployment, workforce training, RE integration
- Long-Term (5–10 yrs): System scaling, AI-driven optimization



## 6. Policy & Regulatory Alignment

- Supported Policies:
  - National EE targets ☐ Smart grid roadmaps ☐ E-mobility incentives
  - Barriers: ☐ Lack of standards ☐ Financing gaps ☐ Bureaucracy

## 7. Monitoring & Evaluation

- KPIs:
  - Energy savings \_\_\_\_\_
  - of digital meters installed \_\_\_\_\_
  - Charging stations operational \_\_\_\_\_
- Tools: ☐ SCADA ☐ GIS ☐ Smart meter analytics
- Notes:
  - Adapt fields (\_\_\_\_\_) to project specifics.
  - Use checkboxes (☐) for rapid assessment.
  - E-mobility: Include grid upgrade requirements for chargers.
  - Digitalization: Stress cybersecurity measures for IT systems.
  - Need adjustments for a specific audience (e.g., utilities, policymakers)? Let me know!