



ECOWAS REGIONAL ELECTRICITY ACCESS AND BATTERY ENERGY STORAGE TECHNOLOGY PROJECT (BEST – P167569)

REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTING SERVICES – INDIVIDUAL CONSULTANT SELECTION)

(Deadline Extension)

Recruitment of recruitment of a senior engineer, specialist in battery energy storage technology, to support the RCU during the implementation of the project BEST project

NG-CEDEAO-DEM-347359-CS-INDV

Closing Date: 25th , August 2023 at 5:00 pm GMT

Contract: Time base

Project reference No.: P167569

1. To improve the population's access to electricity, ECOWAS is working for the establishment of a regional electricity market through the development of power generation and transmission infrastructure, and its intensifying initiative related to access to electricity. Thus, ECOWAS initiated, with the support of the World Bank, the Regional Electricity Access Project (REAP) to be implemented in the form of a series of projects to gradually cover 11 countries including 9 of the ECOWAS.
2. Phase 1 of the REAP, entitled ECOWAS-REAP, covers The Gambia, Guinea Bissau and Mali. The objective is to allow 2.04 million people to benefit from electricity services. The funding is 225 million USD. Components of ECOWAS-REAP are (i) Design, supply, and installation of the electricity distribution infrastructures, (ii) supervision of the construction and technical advisory, and (iii) project coordination and technical assistance. The project has created National Project Implementation Unit (PIU) in each country involved and a Regional Coordination Unit (RCU) housed in the Directorate of Energy and Mines.
3. Then, Phase 2 of the REAP, entitled Regional Electricity Access and Battery Energy Storage Technology Project (BEST) approved in 2022. It covers Mauritania, Niger, and Senegal for the "Access" component and Côte d'Ivoire, Mali, and Niger for the "Battery" component. The objective is to increase people's access to electricity and to contribute to stability and better energy flow in the WAPP transmission system. The funding is 465 million USD. All components of BEST are (i) Design, supply, and installation of electricity distribution

infrastructure, (ii) design, supply, and installation of BEST equipment, (iii) supervision of the construction and technical advisory, and (iv) project coordination and technical assistance. National Project Implementation Units (PIU) have also been created in each country involved.

4. Among the experts of the RCU are Power Engineers, to provide some services and work closely with other engineers in the Owners' Engineer team and in the national Project Implementation Units (PIU), then report to the RCU Coordinator. The RCU setup for ECOWAS-REAP was also entrusted to coordinate the BEST project, and it has become imperative to reinforce the RCU. In line with the above, ECOWAS Commission, in relation to the World Bank, plans to recruit a **Senior Power Engineer for Battery (BEST Project)** for the Regional Coordination Unit (RCU).
5. The consultant's services ("the services") include the following, as indicated below One (01) year period extensible based on satisfactory performance, including a probation period of three (03) months with Time base contract.
6. **The Senior Power Engineer for Battery** responsibility will be to contribute to project technical preparation and ensure project technical supervision and monitoring of the construction works. Activities to be performed by him include but are not limited to the following:
 - a) Provide engineering support to the PIUs and RCU Teams as the key expert in battery Energy storage technology
 - b) Contribute to drafting or reviewing all technical documents, including electrical designs, technical specifications, fire and explosion risk assessments, pre-fire plans, technical reports, and proposals submitted by contractors' firms.
 - c) Assist in the preparation of the next phases of the project in coordination with the Senior Power Engineer for preparation, particularly in aspects related to the engineering design of the battery storage system, equipment specifications, protection and control, and other technical aspects under the general management of the RCU Coordinator.
 - d) Contribute to the preparation of tender documents for the project and ensure that they include all technical requirements and applicable international standards.
 - e) Participate in the bidding evaluation process and support the tender evaluation process, bidding report, and contract preparation.
 - f) Attend Factory Acceptance Tests, and inspect the quality, and quantity of BESS equipment.
 - g) Supervise the installation of BESS equipment and infrastructure to ensure their conformity with approved design and drawing.
 - h) Complete site inspections and supervise commissioning conducted on BESS equipment and infrastructure in coordination with the Owner Engineer.
 - i) Provide engineering support to the Power Engineers for Battery of the national PIU of beneficiary countries in their collaboration with the Owners' Engineer particularly, review the reporting of the Owners' Engineer, check, and certify the invoices of Owners' Engineers and contractors.
 - j) Follow up on correspondences between the Owners' Engineer, Contractors, national PIUs, and the other stakeholders.
 - k) Monitor the implementation of the project schedule to ensure adherence with the project timeline.

- l) Monitor the implementation of the Quality Management Plan set up by contractors and safety arrangements during work (Personal protective equipment, Staff certifications to handle specific electricity-related tasks, etc.);
 - m) Collect all relevant information on the construction, anticipate and identify problems and risks arising and recommend necessary actions to the RCU and project financiers.
 - n) Assess and advise on all proposed technical variations and report on justification or otherwise of claims.
 - o) Contribute into the elaboration of annual work plans, and annual budgets, as well as the quarterly, biannual, and annual reports of the project;
 - p) Assist the RCU Coordinator in supervising the Owners' Engineer and contractors' performance in handling technical issues, then provide corrective instructions as needed;
 - q) Assist the RCU Coordinator in the preparation of World Bank missions of supervision, meetings of the Technical Committees, and that of the Steering Committee.
 - r) Respond effectively to any other tasks assigned by the RCU Coordinator and undertake any other activities, as instructed by the ECOWAS Director of Energy and Mines.
7. Details of the position can be found on the Terms of Reference. Interested candidates can have access to the Terms of Reference to request by email.
8. Interested and eligible Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services regarding the following criteria:

Qualifications and skills

- (i) Must hold at least a master's degree in Power/Electrical Engineering, Electromechanical Engineering, Electrochemistry, Process Engineering or any other relevant fields with specialization in Battery energy storage systems;
- (ii) Minimum Certificate in Battery Energy Storage Systems or equivalent
- (iii) Good skills in information technology and communication tools.
- (iv) Ability to work in a multidisciplinary team.
- (v) Experienced computer user, including excellent knowledge of Microsoft Office suite.
- (vi) Excellent written presentation and reporting skills.

General experience

- (i) Significant exposure to the electricity sector with a minimum of 15 years of professional experience in power systems **which, 5 years** in performing electrical designs of integrated BESS, in supervision of installation of battery technology, and in BESS management.
- (ii) International experience in working with multi-disciplinary teams on Battery energy systems for network stability.
- (iii) Experience in development project finance by the World Bank.
Have a good knowledge of the issues and problems facing the energy sector in the ECOWAS region

Specific experience

- (i) Have been involved at least in two (2) large engineering projects on battery energy storage technology in the last five (5) years.
- (ii) Experience and understanding of the methodology of power system planning and analysis software, as well as rules for the interconnection of electricity networks, applicable codes, standards, and regulations in West Africa.
- (iii) Specific experience in substation design and construction.

Language requirement

Candidates must speak and write fluent French and English.

- 9. A Candidate will be selected in accordance with the Selection of Individual Consultant set out in the World Bank Procurement Regulations for IPF Borrowers (Fourth Edition November 2020).
- 10. Further information can be obtained only by mail at the following email address: ecowas-reap@ecowas.int; with copy to lkouassi@ecowas.int ; banwone@ecowas.int ; akoumoin@ecowas.int and bdabire@ecowas.int .
- 11. Expressions of interest must be delivered latest by 25th, August 2023 at 5:00 pm GMT at ecowas-reap@ecowas.int; **copying** lkouassi@ecowas.int, ddegny@ecowas.int, banwone@ecowas.int, akoumoin@ecowas.int and bdabire@ecowas.int