

REQUEST FOR EXPRESSION OF INTEREST

Feasibility Study for Solar Power Plants with Battery Storage and Mini-Grids in Guinea-Bissau

Publication date: July 31, 2024

Submission date: August 21, 2024

Country: Guinea-Bissau

Scope of Work

The objective of this consultancy is to evaluate the optimal operation and functionalities of Battery Energy Storage Systems (BESS) in conjunction with a 50 MWp solar park in Guinea Bissau. This assessment aims to provide valuable insights to the World Bank for informing the Government's procurement decisions regarding regional solar parks. Additionally, the study must contribute to the broader discourse on the structuring of hybrid Power Purchase Agreements (PPAs) within the World Bank's initiatives.

The scope of work entails analyzing the usage and operation of BESS, focusing on Phase 1 of the regional solar park in The Gambia as a case study. The Consultant is responsible for tasks including inception and data gathering, as well as simulating optimal BESS operation and functionalities. The project is expected to be completed within six months from the contract signing date, with provision for two international trips during the contract duration outlined in the financial proposal.

Eligibility Requirement:

The core team should include the following professionals:

Team Leader: At least a Bachelor's degree (Bac+5) with at least 15 years of experience in planning, developing, and implementing renewable energy projects, particularly solar photovoltaic.

Energy Planning Expert: At least a Bachelor's degree (Bac+5) with at least 10 years of experience in planning and optimizing electrical and energy systems.

Solar PV Expert: At least a Bachelor's degree (Bac+5) with at least 10 years of experience in the technical sizing of medium-sized solar power plants with energy storage (<50MWh).

Civil Engineer: At least a Bachelor's degree (Bac+5) in civil engineering, mechanical engineering, or a related field, with at least 10 years of experience in the technical sizing of medium-sized solar power plants (<50MWh).

Geotechnical Engineer: At least a Bachelor's degree (Bac+5) in civil engineering or mechanical engineering, with a strong focus on soil studies and at least 10 years of experience in the sizing of medium-sized solar photovoltaic power plants (<50MW).

GIS Expert: At least a Bachelor's degree (Bac+4/5) in computer engineering, information systems, remote sensing, cartography, or a related field, with at least 7 years of experience in energy production projects.

Extensive experience working with energy sector authorities in Guinea-Bissau is essential, including experience in network integration and planning in the country.

La consultoría tiene como objetivo evaluar la operación óptima de los Sistemas de Almacenamiento de Energía en Baterías (BESS) junto con un parque solar de 50 MWp en Guinea-Bisáu