





United States Energy Association

Power Africa: A U.S. Government-Led Partnership to Increase Sub-Saharan Africa's Access to Energy Request for Proposal: Energy Mix Diversification Strategy for the Uganda Electricity Generation Company, Ltd.

REQUEST FOR PROPOSAL - Energy Mix Diversification Strategy for the Uganda Electricity Generation Company, Ltd.

Closing date of RFP: March 20, 2020

Implementing Agency: United States Energy Association (USEA)

Funding Agency: United States Agency for International Development (USAID)

Award Ceiling: \$60,000 (sixty thousand US Dollars)

The United States Energy Association (USEA) is inviting prospective organizations or individuals through this Request for Proposal (RFP) to submit proposals for developing a Uganda Energy Mix Diversification Strategy for the Uganda Electricity Generation Company, Ltd. (UEGCL).

This is an activity implemented by USEA under the United States Agency for International Development (USAID) Power Africa Initiative. As this is a USAID-funded program, the RFP follows USAID Procurement Regulations and Laws. All bidder details will be kept confidential.

Proposals are due by 17:00 hours EST of the closing date. Please submit all proposals with a read receipt to Ms. Elise Voorhis, Senior Program Coordinator, at evoorhis@usea.org. Proposals must be in digital format (PDF).

I. INTRODUCTION

The United States Energy Association, headquartered in Washington, DC, is an association of public and private energy-related organizations, corporations, and government agencies. USEA represents the broad interests of the U.S. energy sector by increasing the understanding of energy issues, both domestically and internationally.

Through a cooperative agreement with the USAID Bureau for Economic Growth, Education and Environment (E3), USEA implements the Energy Utility Partnership Program (EUPP), available to all USAID-assisted countries and USAID Missions. EUPP supports the efforts in USAID-assisted developing countries to increase environmentally sustainable energy production and to improve the operational efficiency and increased financial viability of their utilities and related institutions, with the goal of increasing the access of these countries to safe, reliable, affordable and environmentally sound energy services.

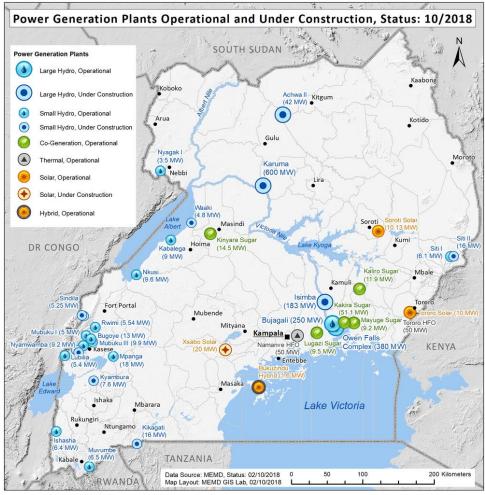
USEA conducts a number of activities under the EUPP mechanism for Power Africa - a U.S. Government-led partnership to increase Sub-Saharan Africa's access to energy. Power Africa uses a wide range of U.S. government tools to support investment in Africa's energy sector. From policy and regulatory best practices, to pre-feasibility studies and capacity building, to long-term financing, insurance, guarantees, credit enhancements and technical assistance, Power Africa provides coordinated support to help African partners expand their generation capacity and access.

II. BACKGROUND

Uganda has a vast potential of renewable energy sources, such as solar, geothermal, wind, and waste-to-energy, which have not been fully explored or exploited. The Uganda Electricity Generation Company Limited (UEGCL) is a public Limited Liability Company incorporated in March 2001 under the Companies Act (Cap 110), and in conformity with the Electricity Act of 1999, and started operation on 1st April 2001. It is under the mandate of UEGCL to establish, acquire, maintain and operate electricity generation facilities and promote research and development in the electricity generation sector.

The electricity supply of UEGCL, and Uganda as a whole, is dominated by hydropower sources. The over reliance on hydropower makes the company and the country at large vulnerable to the vagaries of nature. In 2006-2008, Uganda faced severe load-shedding and relied heavily on expensive thermal plants due to a low hydrology situation that affected Lake Victoria. As a result, hydropower availability at downstream generation sources on the Nile River was severely diminished. In the current generation structure, this scenario is not properly addressed or mitigated. In order to mitigate against this risk, UEGCL would like to diversify its energy sources to include solar, wind, geothermal and other renewables. This would promote energy security in times of climate adversity.

The objective of this technical assistance will be to develop an Energy Mix Diversification Strategy in order to help UEGCL meet their 5-year Strategic Plan 2018-2023 and longer-term energy development plans. This study will need to take into account the wider sectoral policy, regulatory and stakeholder mandates, which all have a bearing to the fulfillment of the diversification strategy. This study would include a financially feasible roadmap for the implementation of the Energy Mix Diversification Strategy.



Source: http://www.energy-gis.ug/

III. IMPLEMENTATON AND APPROACH

The purpose of this RFP is to solicit proposals from various candidate organizations or individuals, conduct a fair evaluation, and select the organization deemed most suitable to undertake the project.

Award Ceiling

USEA is constrained by a \$60,000 budget for this project. This budget does <u>not</u> include travel and logistical expenses that USEA will be responsible for (see Section on USEA Responsibilities).

USEA Responsibilities

USEA will be responsible for all logistical arrangements for the participants and consultants. USEA Staff will be attending each trip to facilitate the logistics and meetings. This includes arrangement and costs for the following:

- Economy-class roundtrip international flights to Entebbe, Uganda for up to 2 consultants per trip;
- Per diem (meals and lodging) for up to 2 consultants per trip to include all travel and training days and maximum
 of 1 full day of rest prior to start of activity (Note: Lodging to be provided according to U.S. government
 regulations);
- Reimbursement of visa fees;
- Reimbursement of vaccinations (if needed) and travel medication costs;
- International health insurance for the duration of the travel to Uganda;
- Ground transportation to/from the airport and any required transportation to site visits/meeting venue;
- Meeting space and AV;
- Printing/photocopying of handout materials.

Subcontract Agreement Management and Oversight

A subcontract agreement between USEA and the winning bidder shall be subject to all USAID Special Terms and Conditions, including all mandatory FAR Flow-Down clauses, where applicable, and the provisions included in 2CFR200 and 2CFR700. All bidders should review these provisions prior to submitting a proposal.

- Standard Provisions for U.S. Nongovernmental Organizations: https://www.usaid.gov/sites/default/files/documents/1868/303maa.pdf
- 2CFR200: https://www.gpo.gov/fdsys/pkg/CFR-2014-title2-vol1/pdf/CFR-2014-title2-vol1-part200.pdf
- 2CFR700: https://www.gpo.gov/fdsys/pkg/CFR-2015-title2-vol1/pdf/CFR-2015-title2-vol1-part700.pdf

Subcontract agreement management, oversight of contractual obligations, and payment will be carried out by USEA. USEA will be responsible for any communication regarding the subcontract with USAID.

IV. SCOPE OF WORK

Purpose: The purpose of this program is two-fold: 1) to enhance the capacity of Uganda and its utility, UEGCL, for safe, reliable and efficient operation of the national generation resources in the short-term, and 2) to increase UEGCL's generation capacity for diversification and long-term planning.

Objectives: The objectives of this program shall include the following:

- To maximize the generation capacity of UEGCL to provide reliable, available, and flexible electricity;
- To explore the gaps in policy, regulation, and key stakeholder mandates that may inhibit energy diversification;
- To identify challenges of integrating renewables into the grid system of Uganda;
- To develop short, medium, and long-term plans for the energy diversification for UEGCL.

Tasks: The tasks to be performed within this Scope of Work shall include:

<u>Task 1:</u> Conducting a 5-day technical meeting to review data and documents from UEGCL and evaluate UEGCL's current and planned generation capacity:

- In addition to meeting with UEGCL, the consultants will meet with key stakeholders in Uganda, such as the Ministry of Energy and Mineral Development (MEMD), Electricity Regulatory Authority (ERA), Rural Electrification Agency (REA), Uganda Electricity Transmission Company Ltd. (UETCL), Uganda Electricity Distribution Company Ltd. (UEDCL), Umeme. These meetings will be arranged and organized by UEGCL, USEA, and USAID.
- o Review current network, planning methods and key documentation;
- o Review the key challenges and gaps in UEGCL's generation planning;
- Obtain data requirements for the studies:
- Review UEGCL's generation expansion plans through the years 2023, 2025, and 2030;
- Review UETCL's load forecasts and transmission expansion plans through years 2023, 2025, and 2030 including the Grid Development Plan and 2040 model;
- Review the Government of Uganda's national policies on energy mix diversification, renewable energy potential, and master plans;
- o Develop workplan and timeline for conducting the studies.

<u>Task 2</u>: Conducting a 2-day site visit to Eastern Uganda for data collection from Mayuge Solar Farm, Tororo Solar Farm, and Namanve Thermal Plant [this task will follow immediately after Task 1]

- Conduct a study on the optimal renewable energy penetration for the current system and required improvements/additional network equipment to improve grid stability for the inclusion of additional intermittent generation;
- o Identify potential generation evacuation issues onto the grid for similar projects.

<u>Task 3</u>: Developing an Energy Mix Diversification Strategy to assess the potential generation capacity of UEGCL and choose the most efficient sources of electricity to diversify the system:

- Conduct a gap analysis in UEGCL's generation planning and provide recommendations to mitigate these issues;
- Review UEGCL's Strategic Plan (2018-2023);
- Develop a mid-term Energy Mix planning strategy (2025-2030);
- Develop a long-term Energy Mix planning strategy (2030-2040);
- o Identify future challenges if network is not improved;
- o Develop proposals for evacuation of electricity onto the grid from identified generation projects;

<u>Task 4:</u> Developing a roadmap and financial business plan for the implementation for the Energy Mix Diversification Strategy with short (2020-2023), medium (2025-2030), long term (2030-2040) plans.

- Identification of private sector financing to enhance financial sustainability of UEGCL;
- o Identification of quick-win projects to fast-track investment and development

<u>Task 5:</u> Presenting the findings of all reports in two half-day meetings (one briefing for UEGCL Top Management and one workshop for the key stakeholders in Uganda). These meetings will be arranged and organized by UEGCL and USEA Staff. This task will serve to obtain stakeholder comments to incorporate into final reports.

<u>Task 6:</u> Submitting the final reports, the Energy Mix Diversification Strategy, Roadmap and Financial Business Plan, to USEA, USAID, and UEGCL.

Deliverables: Based on the Scope of Work, the following deliverables and products shall be submitted:

<u>Deliverable 1</u>: Conduct a 5-day **technical meeting** presenting UEGCL's network model and improvements that could be made. Two digital copies (Word Document and PDF) – in English– of a technical report on data collected, workplan and timeline for the studies, difficulties encountered in the process and recommendations for mitigating these challenges. See "Reporting" section below for the requirements of the technical report.

<u>Deliverable 2</u>: Conduct a 2-day **site visit** to UEGCL's generation units in the Eastern Region of Uganda. Two digital copies (Word Document and PDF) – in English– of a technical report on data collected, workplan and timeline for the studies, difficulties encountered in the process and recommendations for mitigating these challenges. See "Reporting" section below for the requirements of the technical report.

<u>Deliverable 3</u>: Develop a **Draft** *Energy Mix Diversification Strategy* to assess the potential generation capacity of Uganda and choose the most efficient sources of electricity to diversify the system. Two digital copies of the Energy Mix Diversification Strategy on approach, analysis, detailed data findings, conclusions, and recommendations sent to USEA and UEGCL for review and comments. See "Reporting" section below for the requirements of the technical report.

<u>Deliverable 4</u>: Develop a **Draft** Energy Mix Diversification Roadmap and Financial Business Plan to ensure implementation of the Energy Mix Diversification Strategy. Two digital copies of the Roadmap and Financial Business Plan on approach, analysis, detailed data findings, conclusions, and recommendations sent to USEA and UEGCL for review and comments. See "Reporting" section below for the requirements of the technical report.

<u>Deliverable 5:</u> Conduct a **half-day briefing** to present the findings from *the Energy Mix Diversification Strategy and Roadmap/Financial Business Plan* to UEGCL Top Management in Kampala, Uganda. Obtain stakeholder comments to incorporate into final reports.

<u>Deliverable 6:</u> Conduct a **half-day workshop** to present the findings from the *Energy Mix Diversification Strategy and Roadmap/Financial Business Plan* to key stakeholders in Kampala, Uganda. Obtain stakeholder comments to incorporate into final reports.

<u>Deliverable 7</u>: Submit a **Final** *Energy Mix Diversification Strategy* to assess the potential generation capacity of Uganda and choose the most efficient sources of electricity to diversify the system. Two digital copies of the Energy Mix Diversification Strategy approach, analysis, detailed data findings, conclusions, and recommendations. See "Reporting" section below for the requirements of the technical report.

<u>Deliverable 8</u>: Submit a **Final** *Energy Mix Diversification Roadmap and Financial Business Plan* to ensure implementation of the Energy Mix Diversification Strategy. Two digital copies of the Roadmap and Financial Business Plan on approach, analysis, detailed data findings, conclusions, and recommendations sent to USEA and UEGCL. See "Reporting" section below for the requirements of the technical report.

Reporting

The consultants will report to USEA. All communication and deliverables will be submitted to USEA for review. The consultant shall submit a technical report to USEA (USEA will provide a template) in two digital copies (Word Document, Excel, and PDF format):

Technical Report to include:

- Executive Summary and overview of the study;
- Statement of consultants' background and key qualifications;
- Summary of data collected, and information reviewed;
- Detailed summary of findings and models: generation scenarios, impact analysis on scenarios, optimization, financing needs, etc.
- Conclusions;
- Recommendations for implementation;
- Recommendations for further technical assistance and training

Schedule

The project is expected to begin in April 2020 and take approximately 5 months to complete.

Tasks	Activities	Deliverables	Target Completion Date
1. Technical Meeting &	Conduct 5-day technical	(Deliverable 1)	April/May 2020
Document Review	meeting to review	Data collection report,	
	documents	Workplan and timeline	
2. Site Visit Data Collection	Conduct a 2-day site visit for data collection	(Deliverable 2) Data collection technical report	April/May 2020
3. Energy Mix	Develop an Energy Mix	(Deliverables 3)	June/July 2020
Diversification Strategy	Diversification Strategy to assess potential generation capacity	Technical report	, ,
4. Roadmap and Financial	Develop a Roadmap and	(Deliverables 4)	June/July 2020
Business Plan	Financial Business Plan for	Technical report	. ,
	implementation of Energy	·	
	Mix Diversification		
	Strategy		
5. Presentation of reports	Conduct 1 half-day briefing	(Deliverables 5 and 6)	July/August 2020
	and 1 half-day workshop to	Presentations	
	present the findings of the		
	reports and integration of		
	stakeholder comments		
6. Submission of final	Submit the final version of	(Deliverables 7 and 8)	August 2020
reports	the Energy Mix	Technical reports	
	Diversification Strategy,		
	Roadmap and Financial		
	Business Plan		

These target completion dates are provided solely for information purposes and the benefit of bidders. Modification of these assignment dates will not constitute a change in scope.

V. PROPOSAL CONTENT

The proposal must contain the following:

- a) A cover letter to the proposal, including:
 - A bidder's Data Universal Numbering System (D-U-N-S) number and proof of a current registration in the System of Award Management (SAM) [Bidders will be disqualified without a valid D-U-N-S number and SAM registration]
- b) A technical proposal, including:
 - Demonstration of an understanding of the issues to be addressed under the proposed scope of work specified above by providing a summarized technical approach for each of the tasks listed (not to exceed 3 pages);
 - Proposed project schedule to perform the tasks under this project highlighting any deviations from the scope of work specified above;
 - Bio sketches of personnel, including at least 1 2 subject matter experts including a team leader that will be dedicated to the project;
 - Summary of relevant experience of each proposed team member for (not beyond) the past 10 years.
 Relevant experience should be listed chronologically (starting with the most recent). Not to exceed 2 pages for each proposed team member;
 - Summary of the work to be performed by each employee proposed for this project.
- c) A financial proposal, including:
 - Detailed justification (i.e. line item budget);
 - Labor, indirect costs, and level of effort for each employee proposed for this project.
 - Please note, as referred in Section 3 "USEA Responsibilities", USEA will arrange and pay for all travel costs, including meals and lodging. These costs do not need to be included in the financial proposal.
- d) Completed USAID Contractor Employee Biographical Data Sheet forms for each employee proposed for this project (https://www.usaid.gov/forms/aid-1420-17).

VI. EVALUATION CRITERIA

All bidders are required to provide a DUNS number and maintain a current SAM registration. Proposals without a DUNS number or proof of SAM registration will not be considered.

Selection of an offer for a subcontract award will be based on an evaluation of proposals against qualifications, subject matter expertise and budget justification. Proposals shall first be evaluated from a technical standpoint (qualifications and subject matter expertise) without regard to proposed budget justification. For those proposals determined to be technically acceptable, budget justification will be evaluated.

Evaluation Criteria: 25%: Experience with similar projects (for each consultant and the organization in general)

20%: Subject matter expertise (education and other relevant experience)

30% Technical approach

25%: Cost

VII. QUESTIONS AND CLARIFICATIONS

All questions and clarification requests related to this RFP should be submitted via email to Ms. Elise Voorhis, Senior Program Coordinator, at evoorhis@usea.org no later than **March 13, 2020**. All questions and answers will be provided to all prospective bidders on the USEA website: www.usea.org.

END OF RFP