

**USEA RFP for Feasibility Study and Design for Oserian Two Lakes – High Voltage KPLC
Interconnection
Questions and Answers to RFP**

- 1. We understand that under this present assignment Consultant is required to establish a synchronized interconnection between KPLC 33kV and Oserian 11kV network. Please confirm that:**

a) Client shall provide the existing 11kV network details/models including transformer ratings details, line loadings, line lengths, type and size of conductor/cables, if our bid is successful.

Yes, these will be provided by the client.

b) Client shall provide the existing 33kV network details/models including line lengths, type and size of conductor/cables on nearby KPLC's network, if our bid is successful.

Yes, these will be provided by the client.

c) Client shall provide the existing protection system setting on both Oserian 11kV and KPLC's 33kV network system

Yes, these will be provided by the client.

- 2. At page 3, it is mentioned that the feasibility study and design will include Design Drawings. Please clarify:**

a) If line route assessment/survey is to be conducted for proposed 33kV line from KPLC's nearby network to Oserian industrial park?

The nearby 33KV KPLC line is located approximately 30meters from the 11KV Oserian line. Therefore, it is not anticipated that a route assessment/survey will be necessary.

b) If there is a site identified for 33/11kV substation at Oserian industrial park, if so, the details will be provided to us.

The site has been tentatively identified and located near a transformer station. Further guidance will be provided to the consultant selected for this project.

c) Where will the proposed 33kV panels be installed at Oserian park?

The plan is to have all the panels within the substation, but the decision may be guided by the design needs.

d) Whether conceptual design of control building for 33/11kV substation is a part of the scope to accommodate the proposed 33kV panels and other equipment?

Yes. The scope should also include Bill of Quantities.

- 3. Under Clause II-Background it is mentioned that the ODC has developed a master plan which has identified power demand requirement for different facilities and Oserian has a high growth target to expand the industrial park to a total of 8MW of demand over the next two years. And under Clause III-Deliverables there is a requirement of System Impact Study.**

We understand that 8MW load is the Maximum Demand of the Industrial Park which should be considered for the next two years for System Impact Study and no further demand estimate is required. Please confirm/clarify.

Yes, 8 MW is the maximum demand of the industrial park that should be considered for this project.

- 4. Clause IV – Company/ organization Data Universal Numbering System (DUNS) number and confirmation of current status in the System of Award Management (SAM). Kindly advise what this DUNS number is and whether we are required to register our company to get such a number and status in the System of Award Management (SAM).**

A DUNS number is a unique identifier for contractors or subcontractors who receive funds from the U.S. Government. Instructions to obtain a DUNS number can be found here:

<https://www.grants.gov/applicants/organization-registration/step-1-obtain-duns-number.html>

Instructions for registering with the System for Award Management:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>

- 5. The link provided for the USAID Contractor Employee Biographical Data Sheet forms for each employee proposed for this project was found to have an error. Kindly share another link or the USAID Contractor Employee Biographical Data Sheet form as an attachment.**

Biographical Data Sheet forms for each employee proposed for this project

<https://www.usaid.gov/sites/default/files/documents/1868/AID-1420-17-6-13-19FINAL.doc>

6. Please confirm the location of the thermal plant?

The binary geothermal power plant is located on Oserian land in Naivasha, Kenya.

7. Is the thermal plant located at the current site where we will be required to install the 33kV line and associated transformers to allow for the tie-in connection?

Yes, the binary geothermal power plant is located at the site where interconnection to the 33 kV grid.

8. What controls and control system are in place at the power plant?

Details on the power plant configuration and control system will be made available to the consultant selected for this project.

9. It is understood that the purpose of the interconnection is to ensure a reliable synchronized power supply between KPLC's 33 kV system and Oserian's 11 kV micro grid. Generation capacity at Oserian presently consists of an approximately 1 MW solar PV plant and a 1.6 MW geothermal plant. This assumes that Oserian will not install additional geothermal or solar capacity and that KPLC's supply will also provide additional backup supply if Oserian's solar and/or PV plant are out of service. Please confirm that the study is based on providing a connection with KPLC that can supply the balance of energy supply to meet the 8 MW projected demand.

Yes, this study is based on providing a connection with KPLC that can supply the balance of energy to meet the 8 MW projected demand.

10. Please confirm whether 8 MW will be the limiting design factor, or if the study should include a longer development scenario that would require a larger initial interconnection.

8 MW will be the limiting design factor for the purposes of this study.

11. Please confirm whether KPLC has already provided specific OTLP/KPLC interconnection requirements, such as definition of the interface scope and location. If not, please confirm whether this study is to propose them, or if KPLC intends to do so.

The study should propose these interconnection requirements, which will then be presented to KPLC.

12. The final feasibility study and design report is to include an outline of necessary steps to meet KPLC grid code requirements. Beyond technical requirements that form the grid code, there will be a permitting process in order to facilitate the interconnection with KPLC. Please confirm whether this scope of work includes identification of the licensing/permitting process with KPLC.

This study should outline at a high level the licensing/permitting process with KPLC, but the selected consultant will not be expected to manage the licensing/permitting process under this project.

- 13. Please confirm whether the cost/benefit analysis should also include the identification and assessment of key factors expected to impact costs and benefits of the proposed interconnection.**

To the extent possible, the cost/benefit analysis should include an assessment of key factors that could impact costs and benefits of the KPLC interconnection.

- 14. Concerning feasibility studies associated with grid code compliance, is OTLP requesting only that a list of required studies for grid code compliance be provided, or is completion of these studies part of this scope of work?**

The completion of the required studies for grid code compliance is not required for this project, however, the selected consultant should outline the steps and studies necessary to achieve grid code compliance.

- 15. Concerning design: We have assumed that the intent of this study is to define the grid requirements, preliminary design, and associated studies to facilitate OTLP's application to KPLC; and that detailed design requirements, specifications, data sheets, construction information, and bidding data will be developed under a separate scope after KPLC has confirmed the interconnection requirements. Please confirm if our understanding is correct.**

This is correct.

- 16. It would improve our ability to gauge level of effort and cost of studying/specifying "conductors and cable sizing requirements to connect to distribution panels" if OTLP and KPLC can elaborate on the distribution panels (voltages, quantities, locations, etc.) associated with the project.**

Initially, Oserian anticipates 5Mwe demand which would be up scaled as demand increases in the Industrial Park. The existing KPLC line is 33Kv and Oserian is 11Kv. The plan is to have Oserian the source synchronize to KPLC line with a common line (11KV) from the substation feeding the Industrial park. This should be covered by the design.

- 17. Reference to a local 33kV KPLC line, has a decision been made or is it part of the scope to review and suggest the most appropriate connection point and voltage? Likewise is the new connection to be bare overhead line / aerial bundled cable or buried underground; or is this assessment also to be part of the scope?**

A site for potential interconnection has been identified but the selected consultant may propose alternate locations if suitable. The line is an overhead 33 kV line.

- 18. Does the interconnection of the OTLP and KPLC systems require the adoption of the Kenya National Distribution code within the OLTP network and would we be required to assess the downstream network and connections accordingly? Alternatively, does the OLTP system remain private and Distribution code compliance required only at the interface point(s)?**

An assessment of the downstream network and connections has already been completed and is not necessary for this project. Further information will be made available to the selected consultant.

- 19. Most renewable energy sources are intermittent and/or non-dispatchable. To comply with the requirement to ‘avoid back feed to KPLC grid’ in the event that available generation exceeds local demand, then then generation would need to be curtailed with the assumption of no local energy storage, please advise if this is not the case. Would curtailment be preferred to export, and, are the benefits of energy storage to be considered as part of this assessment?**

The benefits of energy storage are not required to be considered as part of this assessment.

- 20. Can demand and generation profiles of the various components of the OTLP network be provided?**

These will be provided to the selected consultant.

- 21. Can OTLP’s energy tariff (from KPLC) and (estimated) costs from running local generation be provided?**

These will be provided to the selected consultant.

- 22. The RFP states that this will be a Desktop Study, conducted virtually and via videoconferencing. Would USEA be open to a proposal that includes in-person activities in Kenya, for data verification and key stakeholder interviews, within the limitations imposed by the COVID-19 pandemic?**

This activity will be carried out only as a desktop study, with interviews conducted virtually.

- 23. The RFP mentions the master plan produced by the Oserian Development Corporation (ODC) for the Two Lakes Industrial Park. Can USEA share this master plan with bidders? We would be happy to sign a firm non-disclosure agreement, as the master plan will help to inform our proposal.**

The master plan can ultimately be shared with the selected bidder, but is not available to prospective bidders at this time.

- 24. Please provide the authorized geographic code for procurement of goods and services under the USAID-funded project.**

The authorized geographic code is 000.

- 25. Please confirm that USEA will accept all of our proposal items in a single pdf format document.**

Yes, a single PDF document is acceptable.

- 26. Please confirm that there is no required template or format for the cost proposal, other than the instructions in RFP Section IV.c.**

That is correct, there is no required template for a cost proposal.

- 27. The evaluation criteria on page 5 state that 20% of the evaluation will be based on the Bidder's experience on similar projects, and 30% on expertise of team members, but no requirements for such experience or expertise are listed, and no expected team composition is stated. Please clarify what constitutes a "similar project" and list the expectations for education and professional experience of team members, as well as the professional disciplines expected to be made available by the Bidder.**

Similar projects could include grid interconnection design, microgrid design and development, distributed resource planning, etc. There is no prescriptive requirement of the team members' credentials, however, the team as a whole should include experience in power grid planning, electrical engineering, microgrid operations, and grid reliability, among other relevant technical and professional skills.

- 28. VII. Questions and Proposal Timeframe, page 5. Would USEA consider extending the submission deadline by one week (to November 5, 2021)?**

The submission deadline is October 29 and will remain so unless unforeseen extenuating circumstances arise. In this case, USEA would post a notice to the RFP web page and issue an extension notice by email.

- 29. VI. Evaluation Criteria, page 5. Given that the evaluation criteria indicates that the "Bidder's experience with similar projects" is weighted at 20%, would USEA consider allowing additional pages for this section to be included in an Annex?**

Yes, bidders may include a list of similar projects or project experience in additional pages in an annex.

- 30. Request for Proposal, page 1 indicates that proposals should be submitted to Ernest Wyatt, but VII. Questions and Proposal Timeline, page 5 indicates that proposals should be submitted to Derek Burke. Could USEA confirm if proposals should be presented to both individuals?**

Yes, please submit the proposal to both individuals to ensure receipt.

- 31. IV. Proposal Content, page 4. Would USEA allow offerors to include an optional section titled "Comments on the Terms of Reference" as an Annex to the technical proposal?**

Bidders are free to include such an annex, though the evaluation criteria for selection will remain the same.

- 32. II. Background, 3rd paragraph, page 2. On the one hand the paragraph states that OTLP "will need to establish a synchronized interconnection between KPLC's 33kV line and Oserian's 11kV mini grid for back-up power" and on the other hand it states that "Implementing this connection will...maintain their commitment to be power by 100% RE resources". While the KPLC power system is largely renewables-based, it does have some fossil fuel generation, so it is not clear how connecting to KPLC will maintain 100% RE resources. Can USEA help to clarify?**

The long-term commitment of Oserian is to be powered by 100% RE resources, though these resources may

not be fully developed at the time of new clients entering the industrial park. Interconnecting with the KPLC will enable OTLP to continue operating 100% of its power generation from RE resources while continuing to develop its capacity, rather than integrating diesel generators or other thermal generation to meet demand in the short term.

33. **III. Scope of Work, Study Objectives, 1st set of bullet points, page 2. “Conduct a feasibility study and design...” and “Provide.. specifications for the contractor to make a connection”. Can USEA confirm that a minimum functional design and specification is the responsibility under this assignment, but detailed designs will be undertaken separately by the construction contractor?**

That is correct.

34. **III. Scope of Work, Study Objectives, 3rd paragraph, page 3. “USEA will liaise with Oserian to provide the necessary source materials; however, the Consultant should be prepared and experienced to collect this material independently if needed.”**
- a. **During implementation, will USEA and Oserian provide the Contractor with an introduction letter to government and other stakeholders such as KPLC?**
- b. **During implementation, can USEA confirm whether the Contractor will have access to the KPLC PSS/E or DigSilent power system simulation file for the relevant distribution network?**

OTLP will serve as the intermediary between the Contractor and KPLC to acquire all necessary data and information. OTLP will provide introductions as necessary and appropriate.

35. **III. Scope of Work, Study Objectives, 2nd set of bullet points, page 3. “The interconnection feasibility study and design should include but not be limited to:...”. Can USEA confirm that a minimum functional design is required and that detailed designs will be undertaken by the OEM(e.g. the micro grid controller) and the construction contractor?**

That is correct.

36. **III. Scope of Work, Study Objectives, 2nd set of bullet points, page 3. “Micro grid controller to give OTLP the control to feed power to the industrial park and avoid back feed to the KPLC grid.”**
- a. **Can USEA clarify the restriction on back feeding excess generation into the KPLC grid?**
- b. **Can bidders propose alternative solutions to curtailment such as battery energy storage?**

OTLP’s generation license is valid within the OTLP area only, and does not authorize OTLP to sell power into the KPLC grid. Bidders are welcome to propose alternate solutions to curtailment.

37. **III. Scope of Work, Study Objectives, 2nd set of bullet points, page 3. “Perform a comparative analysis of the cost of KPLC power vs power produced in the park...” Can USEA confirm that OTLP operating costs and the relevant KPLC tariff will be made available to the selected Contractor?**

Yes, this information will be made available to the selected bidder after signing a non-disclosure agreement (NDA).

- 38. III. Scope of Work, Deliverables, last bullet point, page 3. Can USEA help to clarify the following bullet point: “Facilities study summary of other relevant findings.”**

This is a formatting error and should read as follows:

- Facilities Study
- Summary of other relevant findings

- 39. What is the contract type for this project – FFP, T&M, CPFF, or some other type?**

The award for this project will be a firm fixed price (FFP) contract.

- 40. Is there an estimated price range for this assignment, or budget ceiling?**

No.

- 41. III. Scope of Work, Study Objectives, page 3. The solicitation notes that “the information will be compiled via desktop research, web conference and emails to relevant stakeholders. USEA will liaise with Oserian to provide the necessary source materials; however, the consultant should be prepared and experienced to collect this material independently if needed.”**
- a. Can USEA confirm if site visits should or should not be included in the budget?**
 - b. If site visits should be included in the budget, can USEA provide a plug figure for all bidders to include in their financial proposal?**

There is no travel included in this project, so site visit costs should not be included in the budget.