

**Alternative Energy Promotion Centre (AEPC)
Renewable Energy for Rural Livelihood (RERL)**

REQUEST FOR PROPOSAL FOR CONSULTING SERVICES

Title of Consulting Services

Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction

Project Name : Renewable Energy for Rural Livelihood (RERL)

Office Name : Alternative Energy Promotion Centre (AEPC)

Office Address : Chakupat , Lalitpur, Nepal

Financing Agency: RERL

Date of RFP Issue: 30 June 2022

Deadline for Submission of RFP: 6 July 2022

Extended Deadline: 12 July 2022

Date.....

Dear Sir/Madam

Subject: Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction.

Please study the evaluation criteria and provide the relevant information to enable you to submit a proposal, attached are:

- i. **Instruction to OfferorAnnex I**
- ii. **General Terms and Conditions of the Contract Annex II**
- iii. **Proposal Submission FormAnnex III**
- iv. **Financial Proposal Submission Form Annex IV**
- v. **Terms of Reference (TOR).....Annex V**

Your offer comprising of both a technical proposal and a financial proposal, in a separate sealed envelope, should reach the following address no later than 10 May 2022

**The National Programme Manager
Renewable Energy for Rural Livelihood
(RERL) Chakupat, Lalitpur, Nepal
Phone: 01-5261726
Website: <http://www.aepc.gov.np/rerl/>
Email: rerl@aepc.gov.np**

If you required additional information, we are ready to provide information, but any delay in providing such information will not be considered a reason for extending the submission date of your proposal.

Yours sincerely,

**Mr. Satish Gautam
National Programme Manager (NPM)**

A. Introduction

1. General

The purpose of this RFP is to invite technical and financial proposals from the potential consulting firms who have skill, knowledge and expertise for "Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction".

2. Cost of Proposal

The offeror shall bear all costs incurred during submitting the proposal. The offeror shall bear all costs associated with the preparation and submission of the proposal. RERL will in no case be responsible or liable for those costs, regardless, of the conduct or outcome of the evaluation of this proposal.

B. Solicitation Documents

3. Contents of solicitation documents

Proposals must offer services for total requirement. The Offeror is expected to examine all corresponding instructions; forms, terms and specifications contained in the solicitation Documents. Failure to comply with these documents will be at the offeror's risk and may affect the evaluation of the Proposal.

4. Clarification of solicitation documents

The offerors requiring any clarification of the Solicitation Documents can forward their queries in the following email address

Email: jiwan.mallik@aepec.gov.np

5. Amendment of solicitation documents

At any time prior to the deadline for submission of proposals, the RERL may, for any reason, whether at its own initiative or in response to a clarification requested by a shortlisted Offeror, modify the Solicitation Documents by amendment.

All offerors that have received the Solicitation Documents will be notified in writing of all amendments to the Solicitation Documents. In order to afford prospective Offerors reasonable time in which to take the amendments into account in preparing their offers, RERL will notify in time.

C. Preparation of Proposals

6. Applying for providing services

The Offerors need to read the RFP including the ToR and prepare proposal accordingly. The proposal must address all the requirements of the proposal including required documents.

7. Language of the proposal

The proposal prepared by the Offeror and all correspondence and documents relating to the proposal exchanged by the Offeror and the RERL shall be written in the English language.

8. Documents comprising the proposal

The proposal shall comprise the following mandatory documents:

- a. **Proposal submission form**
- b. **Organizational Profile/Brochure—describing the nature of business, field of experience, licenses, certification and accreditations**
- c. **Valid registration and renewal certificate**
- d. **VAT certificate**
- e. **Tax Clearance Certificate of 2077/78**
- f. **Track records of Human resource- with list of similar services relevant to objective and scope of works included in this RFP.**
- g. **CVs of proposed human resources signed by concern individual**
- h. **The proposal must provide clear methodology to meet the activities proposed for completing this task**

9. Proposal form

The Offeror shall structure the operational and technical part of its proposal as follows:

A. Institutional capacity

The Offeror will describe its institutional capacity in brief including year of incorporation, facility and equipment, organizational structure, human resources, completed major study in similar field and financial position.

B. In case of Joint Venture, Consortium or Association

- **If the Proposer is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Proposal, they shall confirm in their Proposal that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Proposal; and (ii) if they are awarded the contract, the contract shall be entered into, by and between RERL and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.**

- After the Proposal has been submitted to RERL, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of RERL. Furthermore, neither the lead entity nor the member entities of the joint venture can:
 - a) Submit another proposal, either in its own capacity; nor
 - b) As a lead entity or a member entity for another joint venture submitting another Proposal.

- The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the RFP, both in the Proposal and the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by RERL.

- Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the RFP, it should present such information in the following manner:
 - a) Those that were undertaken together by the joint venture; and
 - b) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the RFP.

- Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the joint venture or those of its members but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

- If a joint venture's Proposal is determined by RERL as the most responsive Proposal that offers the best value for money, RERL shall award the contract to the joint venture, in the name of its designated lead entity. The lead entity shall sign the contract for and on behalf of all other member entities.

They can be described in following headings:

i. Management plan

This section should provide corporate orientation to include the year and state/country of incorporation and brief description of the Offeror's present activities related to program/project evaluation sector. It should focus on services related to the proposal.

This section should also describe the organization unit(s) that will become responsible for the contract, and the general management approach towards a project of this kind. The Offeror should comment on its experience conducting similar programs and identify the person(s) representing the Offeror in any future dealing with the RERL.

ii. Resource plan

This should fully explain the Offeror's resources in terms of personnel and facilities necessary for the performance of this requirement. It should describe the Offeror's current capabilities/facilities and any plans for their expansion.

i. Proposed methodology

This section should demonstrate the Offeror's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point, providing a detailed description of the essential performance characteristics proposed warranty; and demonstrating how the proposed methodology meets or exceeds the specifications. This section should explain clearly how the required information as mentioned in the scope of work in the attached ToR will be collected and analyzed.

Pricing information shall be separated and only contained in the appropriate Price Schedules.

It is mandatory that the Offeror's Proposal numbering system corresponds with the numbering system used in the body of this RFP. All the references to descriptive material and brochures should be included in the appropriate response paragraph, though material/documents themselves may be provided as annexes to the Proposal/response.

Information which the Offeror considers proprietary, if any, should be clearly marked "proprietary" next to the relevant part of the text and it will then be treated as such accordingly.

ii. Summary Sheet

The Offeror is required to prepare a summary sheet (Table 1) with information related to design of mini/small hydropower projects.

Table 1 Summary sheet

SN	Name of the program/project	Contract agency	Duration	Amount of contract

**iii. Qualification of the Service Provider
As per attached ToR**

iv. Human Resource Requirement

As per the attached ToR

10. Proposal prices

The Offeror shall indicate on an appropriate Price Schedules, the price of a service it proposes to supply under the contract. The VAT should be included in the offer, if applicable. The tax will be deducted at source as per prevailing tax rule of the government.

11. Proposal currencies

All prices shall be quoted in the Nepalese Rupees (NRs)

12. Period of validity of proposals

Proposals shall remain valid for One Hundred And twenty (120) days after the date of the Proposal submission prescribed by the RERL, pursuant to the deadline clause. A Proposal valid for a shorter period may be rejected by RERL on the grounds that it is non-responsive.

In exceptional circumstances, the RERL may solicit the Offeror's consent to an extension of the period of validity. The request and the responses there to shall be made in writing. An Offeror granting the request will not be required or permitted to modify its proposal.

13. Format and signing of Proposals

The Offeror shall prepare the Proposal. The Proposal shall be in typed or written in indelible ink and shall be signed by the Offeror or a person or persons duly authorized to bind the Offeror to the contract. The latter authorization shall be indicated by written power-of-attorney accompanying the proposal.

The Proposal shall contain no interlineation, erasures, or overwriting except, as necessary to correct errors made by the Offeror, in which case such corrections shall be initialed by the person of persons signing the proposal.

14. Estimated Completion Date

The desired delivery date for completion of this task is 3 months from signing of contract.

15. Payment

The RERL shall make payments to the Contractor/Offeror after acceptance by the RERL of the invoices submitted by the Contractor/Offeror. The payments will be made in installment basis based on deliverables.

The payments shall be made in two parts as shown below

(i)	20% of the total cost	Upon Acceptance of Inception Report.
(ii)	50% of the total cost of detailed feasibility study	After Submission of Draft Report
(iii)	30% of the total cost after submission of detailed Feasibility study final report	Upon Approval of Final Report

D. Submission of Proposals

16. Sealing and marking of Proposals

The Offeror shall seal (lahachhap) the proposal in one outer and two inner envelopes, as detailed below.

(i) The outer envelope shall be

Addressed to:

The National Project Manager
Renewable Energy for Rural Livelihood (RERL)
Chakupat, Lalitpur, Nepal
Phone: 01 5261726
Website: <http://www.aepc.gov.np/rerl/>
Email: rerl@aepc.gov.np

And,

Marked with:

"Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction"

(ii) Both inner envelopes shall indicate the name and address of the Offeror. The first inner envelope shall contain the information specified in clause 8 (Proposal Form) above. The second inner envelope shall include the price schedule and price schedule of individual Offeror duly identified as such.

NOTE, if the inner envelopes are not sealed and marked as per the instructions in this clause, the RERL will not assume responsibility for the Proposal's misplacement or premature opening.

17. Deadline for the submission of Proposals

Proposals must be received by the RERL at the address specified under clause *Sealing and Marking of Proposals* no later than 17:00 hrs, **6 July 2022**.

RERL may, at its own discretion extend this deadline for the submission of Proposals by amending the solicitation documents in accordance with clause *Amendments of Solicitation Documents*, in which case all right and obligations of the RERL and Offerors previously subject to the deadline will thereafter be subject to the deadline as extended.

18. Late Proposals

Any Proposals received by RERL after the deadline for the submission of Proposals, pursuant to clause *Deadline for the submission of Proposals*, will be rejected.

19. Modification and withdrawal of the Proposals

The Offeror may withdraw its proposal after the Proposal's submission, provided that written notice of the withdrawal is received by the RERL prior to the deadline prescribed for the submission of the Proposals.

The Offeror's withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of the Clause Deadline for Submission of Proposals. The withdrawal notice may also be sent by telex or fax but followed by a signed confirmation copy.

No proposal may be modified subsequent to the deadline for the submission of the Proposals.

No Proposal may be withdrawn in the interval between the deadline for submission of proposals and the expiration of the period of the Proposal validity specified by the Offeror on the Proposals Submission Form.

E. Opening and evaluation of the Proposals

20. Opening of proposals

The RERL will open the Proposals in the presence of RERL officers at RERL office.

21. Clarification of the proposals

To assist in the evaluation and comparison of Proposals, the Purchaser may at its discretion, ask the Offeror for clarification of its Proposal. The request for clarification and the response shall be written form and no change in price or substance of the Proposals shall be sought, offered or permitted.

22. Preliminary examination

The Procurer will examine the Proposals to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed, and whether the Proposals are generally in order.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price errors, its proposal will be rejected. If there is a discrepancy between the words and figures the amount in words will prevail.

Prior to the detailed evaluation, the Procurer will determine the substantial responsiveness of each Proposal to the request for Proposals (RFP). For the purposes of these clauses, a substantially responsive Proposal is one which confirms to all the terms and conditions of RFP without material deviations. The producer's determination of a proposal's responsiveness is based on the contents of the proposal itself without recourse to extrinsic evidence.

23. Evaluation and comparison

Method of Selection: Quality Cost Based Selection

The following will be the marking of the technical and financial proposals.

Technical Proposal	80%
Financial Proposal	20%

A. Technical Evaluation

A score of 80 marks is considered as total mark for the Technical Proposal. The basis for the evaluation of the technical proposals will be as mentioned below.

- 1. Relevant experience of firm 10
 - 1.1 General Experience of firm 5
 - 1.2 Experience of firms particularly on proposed task..... 5
- 2. Approach and Methodology to carry out the proposed tasks 20
 - 2.1 Approach/Methodology to carry out the task 10
 - 2.2 Innovative approaches for the task..... 5
 - 2.3 Manning and work schedule..... 5
- 3. Composition of team proposed for the task 50
 - 3.1 Qualification of the personnel 15
 - 3.2 Experiences of the personnel in similar tasks 35
- Total marks 80

B. Financial Evaluation

Only those firms who have secured at least 70% marks in the technical evaluation will be considered for evaluation of their financial proposal.

The Financial Proposal carries a total score of 30 points. The points for the financial proposal will be allocated as per the following formula:

$$\frac{\text{Lowest Bid Offered}^*}{\text{Bid of the Firm/Offeror}} \times 20$$

* “Lowest Bid Offered” refers to the lowest aggregate price offered by proposers scoring at least 70% points in Technical Evaluation.

C. Selection

The technical and financial marks are added and the firm obtaining highest combined score would be awarded the contract.

Total Combined Score= Technical Score + Financial Score = Max 80 + Max 20

B. Award of contract

24. Award criteria, award of contract

The RERL reserves the right to accept the proposal or reject all proposals at any time prior to award of the contract, without thereby any liability to the affected Offeror or any obligation to inform the affected Offeror or Offerors of the grounds for the Purchaser's action prior to the expiration of the period of proposal validity, the RERL will award the contract to the qualified Offeror whose proposal after being evaluated is considered to be the most responsive to the needs of the organization and activity concerned.

25. Purchaser's right to vary requirements

The purchaser reserves the right at the time of award of the contract to vary the quantity of services and goods specified in the RFP without any change in price or other terms and conditions.

26. Signing of the conditions

After the evaluation of the proposals, a selected Offeror will be asked to enter into contract. Within 15 days of the receipt of the contract, the successful Offeror shall sign and date the contract and return it to the purchaser.

General Terms and Conditions of the Contract

1. Independent Relationship

Nothing contained in the contract shall be construed as establishing or creating between Government and the Organization the relationship of a master and a servant or principal and agent, it being understood that the Organization is an independent person vis-à-vis Government.

2. Organization /Expert/Consultant's General Responsibilities

- The organization shall carry out services under this contract with due diligence and efficiency and in conformity with the highest standards of professionals and ethical competence and integrity.
- The Organization shall act at all times so as to protect, and not be in conflict with the interests of Government.
- The organization shall be responsible for the professional and technical services provided by him/her in the implementation of this contract.

3. Workmen's compensation and other insurance

The organization shall make his/her own arrangements regarding insurance for the medical expenses and for an accident, death and permanent disability for the period of this contract. All costs involved will be borne by the Organization.

4. Source of Instruction

The organization shall neither seek nor accept instructions from any authority other than RERL's authorized agent in connection with the performance of services under this contract.

5. Prohibition on conflicting activities

The Organization shall ensure that he/she will not directly/indirectly engage in any activity that would conflict with those of RERL in respect of this evaluation.

6. Officials no to benefit

The Organization warrants that no RERL has been or will be admitted by him/her to any direct/indirect benefit arising from this contract or award thereof.

7. Assignment

The Organization shall not assign, transfer, pledge or make other disposition of this contract or any other parts thereof rights, claims or obligations under this contract, without prior written approval of RERL.

8. Records, Accounts, Information and Audit

- The organization shall maintain accurate and systematic records and accounts in respect of the services to be performed under this contract.
- The Organization shall furnish, compile or make available at all times to RERL any records or information, oral or written, which RERL may reasonably request for in respect of the services to be performed under this contract.

- **The Organization shall allow RERL or its authorized agents to inspect and audit all such records or information upon reasonable notice.**

9. Language

Unless otherwise specified in this contract, English language shall be used by the Organization in all written communications to RERL with respect to the services rendered and with respect to all documents procured or prepared pertaining to such services.

10. Equipment of property

Equipment or property furnished to the organization with funds supplied or reimbursed by the RERL or its agent shall be the property of the RERL and such equipment shall be returned to the duly authorized official of RERL upon completion of the services, conclusion of this contract or upon completion of the services, conclusion of this contract or upon termination thereof or when no longer required by the Organization. Such equipment or property when returned to RERL shall be in the same conditions as when delivered to the Organization, subject to the normal wear and tear. The organization shall in any event, be liable to RERL for the loss of or damage to such equipment or property through his/her fault or negligence.

11. Confidential Nature of Documents

All maps, drawings, photographs, mosaics and plans.

12. Amendments

The terms and conditions of this contract may be amended only in writing signed by both parties to this contract or their duly authorized representatives.

13. Obligation to Inform RERL of change in condition

The organization shall promptly and fully notify RERL in writing of any conditions, which interferes, or threatens to interfere, with successful carrying out of the services under this contract. Such notice shall not however relieve the Organization of his/her obligations to continue to provide services under this contract. Upon receipt of such notice, RERL shall take such action as in its sole discretion it considers to be appropriate or necessary under the circumstances.

14. Taxation

The Organization shall be liable for any tax levied on the remuneration and allowances paid as per this contract. Income tax on the remuneration and allowances paid to the organization will be deducted at source.

Proposal Submission Form (Company Letter Head)

**The National Programme Manager Renewable
Energy for Rural Livelihood (RERL)
Chakupat, Lalitpur, Nepal
Phone: 01-5261726
Website: <http://www.aepc.gov.np/rerl/>
Email: rerl@aepc.gov.np**

Dear Sir,

Having examined the Solicitation Documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide services to conduct evaluation of the " Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction" for the sum as may be ascertained in accordance with the Price Schedule attached herewith and made part of this proposal.

We undertake, if our proposal is accepted, commence and complete delivery of all services specified in the contract within the time frame stipulated.

We agree to abide by this Proposal for a period of 120 days from the date fixed for opening of Proposals in the invitation for proposal, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We understand that you are not bound to accept any proposal –whole or part –you may receive.

Dated this day/Month of year

**Signature
Name
Position
Stamp**

Duly authorized to sign Proposal for and on behalf of

**Financial Proposal Submission Form
PRICE SCHEDULE**

The Consulting Firm/Contractor is asked to prepare the Price Schedule along with the cost breakdown (as provided in this annex IV below) in separate envelop. All prices/rates quoted must be inclusive of all taxes. The Price Schedule must provide a detailed cost breakdown. Provide separate figure for each functional grouping or category. The format shown on the following pages should be used in preparing the Price Schedule. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as the examples. Therefore, it should be considered as broad guidelines for Price Schedule (s).

Cost Breakdown by Cost Component

Financial Proposal

Technical Feasibility Study and Detailed Engineering Design of two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction

A.					
S.N	Particulars	Unit	Total Mandays	Unit Rate Rs.	Total Amount
A.	Human Resource Fee for field work				
1	Team Leader Civil Engineer	1			
2	Electrical Engineer	1			
3	Electrical technician	1			
B. Transportation cost					
1	Travel				
	Total of A and B				
	Overhead & Office Management Cost 4%				
	Sub Total				
	Vat 13%				
	Grand Total				

Total in words

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Annex V: Terms of Reference (ToR)

Technical Feasibility Study and Detailed Engineering Design of Two Solar Pumping Projects in Sarlahi including Site Supervision and Monitoring during Construction

1. Introduction

Alternative Energy Promotion Centre (AEPC) is a Government institution established on November 3, 1996 under the then Ministry of Science and Technology with the objective of developing and promoting renewable/alternative energy technologies in Nepal. AEPC has been successfully implementing/executing several renewable energy programmes in Nepal. The Renewable Energy for Rural Livelihood (RERL) is a joint programme of Alternative Energy Promotion Centre (AEPC) and United Nations Development Programme (UNDP). RERL is providing technical support to AEPC to implement the Asian Development Bank (ADB) funded South Asia Subregional Economic Cooperation (SASEC) Power System Expansion Project Off-grid Component. SASEC is promoting 4.3 MW mini-hydropower projects (MHP) and 0.5MW Solar/Solar-Wind Hybrid Mini-grids (SMG) to increase access to electricity in rural areas for improving the livelihoods of people by promoting economic activities.

2. The Context

Drinking water is one of main necessity of human but large population is still lacks the clean and adequate drinking water. Recent data from the Department of Water Supply and Sewerage Management (DWSSM) in 2019 reported, merely 51.69% of the population have piped water coverage and the remaining 48.31% are relying on un-piped locally and privately managed systems like private tubewells. The chure communities are most vulnerable in terms of access of drinking and irrigation water. They relied on small water streams which merely available throughout the year. These insufficient and undrinkable water has to fetch far from the source which takes even 3-4 hours to carry heavy weight to the top of the hill. These vulnerability is mainly caused by deforestation, unplanned settlement and haphazard extraction of sand and stones etc. According to local resident, the haphazard quarrying of sand and stones from the lower belt has changed the water course such that both the width and depth of the water channel have fallen, indicating reduced regular flow. Likewise, they also perceived that the water sources, such as underground boring and natural wells, are not providing sufficient water to meet household needs.

Hence, AEPC/RERL has decided to conduct and promote sustainable use of water resource by using renewable energy based water pumping system in Chure region. This study aims to provide detailed engineering design of Solar Water Pumping System. Further, the consultant shall provide the technical support during implementation of the project. The potential sites identified are given below;

- **Site 1: Parwanipur-Tindhar, Lalbandi-16, Sarlahi**
 - Located north of Lalbandi, around 400 households (50% Tamang, 37 dalit, 107 janajati and mix)
- **Site 2: Guidung Village, Ward No. 12, Ishworpur Municipality Sarlahi**

- 60 households
- 1.5hr walk from nearest road head (Gharti Bathan, Naya Tole)

3. Objective

The key objectives of this task is to provide technical support to conduct detailed engineering design, monitor the two projects in Sarlahi.

- Conduct detailed engineering design for civil and electro-mechanical components of solar pumping systems.
- Provide the technical support during installation, testing and commissioning of the projects.

4. Scope of Work

The consultant should conduct, but not limited to, the following activities

- Conduct detailed engineering design for civil works for solar pumping project
 - Obtain secondary information of sites, detailed information about site with AEPC/RERL, relevant policy, guideline, methodology for designing the water pumping system.
 - Prepare and inception report and discuss the methodology with concerned officials of AEPC/RERL prior to site visit for detailed engineering design.
 - Visit the site and carryout site survey, demand assessment in discussion with sample household, focused group discussion and resource assessment.
 - Investigate the use of multiple water system i.e. integrated drinking and irrigation system.
 - Based on the site condition, design all the civil and electro-mechanical components of the solar water pumping system.
 - Prepare the drawings of all components and also provide bar scheduling.
 - Conduct structural analysis of the major civil components. If necessary, conduct the soil test.
 - Prepare the complete layout of drinking water project.
 - Test water quality of source water and recommend filtration system if necessary.
 - The consultant has to provide all the structural design drawings.
 - Provide the BOQ of the system and support in the procurement.
 - Provide the on-site supervision of the installation of the Solar Pumping Projects.
 - Consultant has to provide a full time experienced civil engineer and a technician during implementation of project. The tenure should be atleast of 6 months.
 - Report to AEPC/RERL for the any deviation made by installer.
- Provide the technical support during installation, testing and commissioning of the project.

Since, the financial closure of this project is confirmed, it is likely that the procurement shall be initiated immediately after providing final report of above tasks. Thus same

consultant shall be engaged on site supervision and monitoring during the installation.

- a) Analyze the signed technical specifications of the project
- b) Quality control of the project
 - Examine the test certificate, quality certificates of construction material and equipment.
 - Carry out the quality inspection/test of construction material supplied by contractor
 - Inspect the concrete mix and examine whether it comply with technical spec or not.
 - Provide the approval to the contractor wherever needed during the construction of the project.
 - Conduct the standby supervision during concrete laying and keep the record of concrete batching.
 - Keep the record sheet of curing of the constructed structure.
 - Witness the cube test and verify it with the specification. If the result obtained from these tests is below the required result, ask the contractor to do the readjustment of the concrete mix design immediately.
- c) Cost and time control of the project
 - a. Keep record of the log sheet of important activities.
 - b. Keep record of the measurement of completed works
 - c. Take photographs of each of important activities and completed work for future references.
 - d. Verify the activities and timeline mentioned in the work schedule given by the contractor and take necessary action for any deviation seen. Ensure the timely completion of the project.
 - e. Upon request from AEPC/RERL, prepare the interim payment bill of the completed work. Site engineer shall check the bill of quantity with the calculation from drawing and sketch as well.
- d) Consultant shall be also engaged on factory inspection of the major equipment if deemed necessary.
- e) Prepare the receipt of equipment delivered at site. Inspect for any damage and deviation from the specification in the contract with the vendor.
- f) Prepare monthly progress report and timesheet activity and report it to concerned official of AEPC/RERL.

5. Duration of the Task

The complete detailed engineering design of both sites is expected to be completed in two month from the time of signing the contract however the consultant shall be engaged until the project shall be completed mainly for supervision and monitoring of the project. The expected date of completion of the project is March 2023.

6. Qualification of the proposed Human Resource

The team should be composed of at least the following professionals:

7.1 Civil Engineer cum Team Leader – 1

Master's Degree, or equivalent, in Water Supply/Civil Engineering or other related fields. Bachelor degree with specialized experience on water supply sector in similar organization/s, may be considered in lieu of a Master's degree. The candidate should have a minimum 5 years of experience in water supply project design and implementation. The candidate should have in-depth knowledge of the policy, guideline, standard related to water supply in Nepal. Civil Engineer shall also act as team leader of this study and s/he shall be responsible for overall coordination, quality of the outputs, to accomplish this task.

7.2 Electrical Engineer- 1

A technical expert knowledgeable in electro-mechanical components of solar pumping system with Bachelor's degree in Electrical Engineering with 2 years of experience in similar works. S/he should have thorough knowledge of the technical parameters, guidelines, and standards of large scale solar projects as well as quality assurance of the sector having very good experience in solar pumps and the electricity protection system.

7.3 Electrical Technician

The technician should have a technical school in electrical, with atleast 2 years of work experience in electrical related works. S/he should have a demonstrated knowledge and experience on promoting enterprises in rural areas of Nepal. He or she must have very good interpersonal and communication skills.

7. Deliverables (Outputs)

- **Inception reports with detailed methodology including questionnaires, forms, formats, checklist, etc. and field visit schedule**
- **Field report after the survey**
- **Draft Final Report for the review and comments from AEPC/RERL**
- **One hard copy and one electronic copy of the final report incl. drawings and raw data.**

8. Inputs from AEPC/RERL

The following inputs will be made available for completing the assignment:

- **Preliminary findings made during site identification**
- **Design input in solar pump selection**
- **Inputs to assist the consultant at different stages of the assignment from AEPC and RERL**
- **Provide related documents and reports**

9. Timing and Budget

- i) The Consultant shall complete the work, including all reporting, within two months from the date of signing the Contract.**
- ii) Payment Schedule shall be as following:**
 - **First Installment: 20% of the agreement amount upon acceptance of inception report**
 - **Second Installment: 50% of the agreed amount after submission of draft report**

- **Third Installment: 30% of the agreed amount upon approval of the final report**

1. Selection/Evaluation Process

The selection will be followed based on Quality and Cost Based Selection (QCBS). Criteria for technical selection has been given in Annex I.

Documents to be submitted by the Firm (Eligibility Criteria)

SN	Documents
1	Copy of Company/Firm Registration Certificate with updated renewal
2	Copy of VAT Registration Certificate
3	Copy of TAX Clearance Certificate of F. Y. 2077/78
4	Latest Signed Resume of resource persons (as per ToR)
5	Financial Proposal with signed cover letter including VAT (as per given format)

2. Acceptance of Proposal

All rights are reserved with AEPC/RERL either to approve or disapprove any proposal without giving any reasons whatsoever. If needed, the consultant will be asked for modifications and presentations of the proposal before approval.

3. Force Majeure

Without prejudice to their rights, the Government and the service provider shall not be held responsible or suffer any financial loss should the performance of the contract be delayed or prevented by an event of Force Majeure, which shall include, but not limited to strikes, riots, civil commotion, fire accident or any other incident beyond the control of either party hereto which neither party was aware of or could have foreseen at the time of signing of this contract. In event of an occurrence of the Force Majeure, either party shall notify the other of the event, or during such event, the rights and obligations of either party shall automatically be suspended.