

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

**Request for Proposal  
for  
Repair and Maintenance of Hydromechanical Components of  
Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality,  
Rukum (200kW)**

**Project Name:** Renewable Energy for Rural Livelihood (RERL)

**Office Address:** Khumaltar Height, Lalitpur, Nepal

**Date of RFP Issue:** 19 May 2021

**Deadline for Submission of RFP:** 2 June 2021

**Date.....**

Dear Sir/Madam

**Subject: Conducting Repair and Maintenance of Hydro Mechanical Components of Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum (200kW)**

Please study the evaluation criteria and provide the relevant information

To enable you to submit a proposal, attached are:

- i. Instruction to Offeror ..... Annex I
- ii. General Terms and Conditions of the Contract ..... Annex II
- iii. Proposal Submission Form ..... Annex 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 envelopes, should reach the following address no later than **5pm, 2 June 2021**

The National Programme Manager  
Renewable Energy for Rural Livelihood (RERL)  
Khumaltar Height, Lalitpur, Nepal  
Phone: 01 5544146 ; 5539390  
Website: <http://www.aepc.gov.np/rerl/public/>  
Email: [rerl@aepc.gov.np](mailto:rerl@aepc.gov.np)

If you require 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 proposals from the potential company/service providers who have skill, knowledge and expertise for **“Conducting Repair and Maintenance of Hydro Mechanical Components of Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum (200kW)”**.

### **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**

### **1. 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.

### **2. Clarification of solicitation documents**

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

Email: [tilak.limbu@aepec.gov.np](mailto:tilak.limbu@aepec.gov.np)

### **3. 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**

### **1. 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.

## **2. 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.

## **3. 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 2076/2077
- f. Track records of Human resource- with list of similar services relevant to objective and scope of works included in this RFP.

## **4. Proposal form**

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

### **4.1 Institutional capacity**

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

### **4.2 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.

#### **4.3 Qualification of the Service Provider**

As per attached ToR

#### **4.4 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.

#### **4.5 Proposal currencies**

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

#### **4.6 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.

#### **4.7 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 or persons signing the proposal.

#### 4.8 Estimated Completion Date

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

#### 4.9 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 three parts as shown below:

(i)	40% of the total cost	Upon signing contract
(i)	30% of the total cost	Upon installation and running of the plant and report submission
(ii)	30% of the total cost	Approval from concerned AEPC/RERL

### D. Submission of Proposals

#### 1. Sealing and marking of Proposals

The Offeror shall seal (lahachhap) the proposal in one envelope, as detailed below.

(i) The envelope shall be Addressed to:

The National Project Manager  
Renewable Energy for Rural Livelihood (RERL)  
Khumaltar Height, Lalitpur, Nepal  
Phone: 01 5544146 ; 5539390  
Website: <http://www.aepc.gov.np/rerl/public/>  
Email: [rerl@aepc.gov.np](mailto:rerl@aepc.gov.np)

And, Marked with:

**“Conducting Repair and Maintenance of Hydro Mechanical components of Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum (200kW)”**

**NOTE**, if the 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.

#### 2. 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 **17:00hrs, 2 June 2021**.

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 Offeror previously subject to the deadline will thereafter be subject to the deadline as extended.

### **3. 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.

### **4. 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**

### **1. Opening of proposals**

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

### **2. 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.

### **3. 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.

**4. Evaluation and comparison**

**Method of Selection: Least Cost Method**

The Purchaser shall select to award the Contract to the Bidder/service provider whose offer has been determined to be the lowest evaluated responsive Bid.

1	Eligibility Requirement are spelt out in Clause C (3)
2	Delivery and task completion Schedule: Final: Within 3 Months from the date of agreement.
3	Price Schedule proposed by the bidder
4	Terms of Reference and Scope of the task requirement
5	The Bidder/Service Provider shall demonstrate 2 similar experience in the similar field. [In case of JV, at least one partner must meet the requirement]

**F. Award of contract**

**1. 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 Offeror 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.

**2. 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.

**3. Signing of the conditions**

After the evaluation of the proposals, **a selected Offeror will be asked to enter into contract.** Within 5 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)  
Khumaltar Height, Lalitpur, Nepal  
Phone: 01 5539390, 5539391, Fax: 01 5542397  
Website: <http://www.aepc.gov.np/rerl/public/>  
Email: [info.rerl@aepc.gov.np](mailto:info.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 **Conducting Repair and Maintenance of Hydro Mechanical components of Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum (200kW)** 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 (in NPR)

	Particulars	Unit	No	Unit cost	Total cost
<b>A</b>	<b>Removal of machine part transportation and installation</b>				
	<b>Lifting Arrangement:</b> Fabrication and Installation of Monorail Beam Arrangement to Suit the Existing Powerhouse having Capacity of 2.5 Ton x 10m long x 3m high.	LS	1		
	Fault Finding and Dismantling of mechanical equipment	LS	1		
	Transportation of Equipment up to Workshop from Powerhouse	Trip	1		
	Transportation of equipment up to Powerhouse from Workshop	Trip	1		
	Re- Installation of equipment at powerhouse	LS	1		
<b>B</b>	<b>Machine Repair Cost</b>				
	Welding, Machining, Static Balancing of Runner (Diameter=50cm)	Set	1		
	Repair of Side Cover and Head Cover by welding and machining	Set	2		
	Fabrication and Machining of MS labyrinth Seal Disc	Set	1		
	Repair of Guide Vane Arm by welding and machining	Set	12		
	Guide Vane Repair by welding and machining	Set	12		
	Repair of Shaft seal casing / Manufacturing of Shaft Seal Casing and replacement of seal rings	Set	1		

Repair of Shear pins by Welding and machining or manufacturing of Shear Pins	Set	12		
Manufacturing of Guide Vane Bush	Set	24		
Repair of Guide bearing filling of Babbit material, fixing it to jigs and machining	Set	1		
Repair of Thrusts Pad Refilling of Babbit material filling and Machining	Set	1		
Supply of coupling rubber for Shaft Coupling between Turbine Shaft and Generator Shaft	Set	6		
Repair of main inlet Valve (50cm)	Set	1		
Preparation of drawing of repaired component	LS	1		
<b>Sub-Total (A)</b>				
<b>VAT (B)</b>				
<b>Total (A+B)</b>				

Total amount in words .....

.....

**Terms of Reference**  
**“Conducting Repair and Maintenance of Mechanical components of**  
**Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum**  
**(200kW)”**

**1. Introduction**

Alternative Energy Promotion Centre (AEPC) is the apex government body under the ministry of science, technology and environment which was established on 1996 with the objective of promotion of Renewable Energy Technologies in Nepal. Renewable Energy for Rural Livelihood (RERL) Programme has been implementing under the umbrella of AEPC.

The RERL is providing technical assistance to mini hydro component of SASCE project and supports AEPC promotion and dissemination of renewable energy technologies. Creating enabling policy environment to enhance private and public sector capacities for manufacturing and installations of electro-mechanical equipment to match the increasing demands of RE sector is also a major focus of AEPC/RERL.

Simrutu Khola Mini Hydro Project (200kW) is constructed through subsidy and technical assistance of AEPC. It is under operation since 2019 and is supplying electricity to more than 1300 households. However, the operation of the project has stopped since 2 April 2021 due to problems in mechanical components of the plant. A team of technicians were hired by SASEC/RERL for fault finding and solution recommendation. The technicians dismantled equipment at site and performed thorough checks. They advised for overhaul of mechanical equipment which was also recommended by the manufacturer every 2 years. Major problems identified were related with - (a) Main Inlet Valve (b) Runner and its casing (c) Guide vanes (d) Bearing. The main inlet valve is broken and needs replacement. The runner casing is worn out due to improper alignment while the guide vanes is worn out due to sediment causing trouble in operation of governor. The bearing temperature is unstable due to ingress of water into the bearing. The technicians visiting the site advised to stop the operation of the plant and go for full overhaul as further operation may damage other mechanical components of the plant.

**2. Objectives**

In the context and line with the background stated above, the objective of the assignment is to Conduct Repair and Maintenance of Mechanical components of Simrutu Khola Mini Hydro Project, Tribeni Rural Municipality, Rukum.

**3. Scope of Work**

The Scope of work comprises of dismantling of the Turbine Spiral Casing, Turbine Bearing Block, transportation up to their workshop, performing overall maintenance, necessary testing, transporting to the repaired components to the Site and installation and testing.

Preparation of Lifting arrangement for the machines, which will be the part of plant afterwards, shall also be the scope of work of the Bidder.

The following Scope of Work briefly describes the job which needs to be performed by the bidder. It is assumed that the bidder has visited the site, has done his own assessment and is experienced enough to perform the work to complete the job as per the site requirement.

**(a) Fabrication of Lifting Arrangement:**

In order to remove the machines from the existing location and load it onto the Vehicle, there is no provision of any type of hoisting equipment. Therefore, the bidder needs to prepare and install a monorail hoisting system inside the powerhouse. This monorail hoist system shall be designed, fabricated, installed by the bidder. It shall be suitable for handling of maximum of 2.5 Ton load. It shall be the part of the powerhouse after completion of the work.

All necessary beams, rails, embedded parts shall be supplied by the bidder to complete the work. The bidder shall take necessary power supply equipment (Diesel Generator Set) of suitable capacity for performing welding and other fabrication works.

**(b) Transportation to Workshop:**

The machines and parts which needs to be brought to workshop shall be loaded to the suitable capacity trucks and transported to the respective workshop of the Bidder. The goods carried by the bidder needs to be properly secured so as to avoid any damage/loss during transportation. As per current site condition, spiral casing, bearing block, turbine and its accessories needs to be brought to workshop.

**(c) Overall Machine Repair:**

The machine shall be repaired so that its function is restored. The following are the major works the bidder has to perform. However, if there are tasks other than mentioned below and is necessary for the function of the plant, shall also be performed by the bidder without any additional cost.

**(i) Runner Repair**

Damaged part of runner blade needs to be filled with welding material and finished grounded as per existing profile. Runner Top ring, mid ring and bottom ring needs to be filled with stainless steel welding electrode. Final machining shall be carried out to suit and match other mating parts. Finally, the runner needs to be statically balanced.

**(ii) Side Cover and Head Cover**

Side Cover and Head cover need to be inspected thoroughly. If the extent of damage is not more, then it needs to be weld repaired followed by proper machining. If the damage is more, the parts need to be refabricated from the mild steel plates with suitable thickness and machining.

**(iii) MS Labyrinth Seal Disc**

Labyrinth Seal Disc needs to be re fabricated out of a new Mild Steel Disc. The disc needs to be machined out to match the existing turbine and housing dimensions. The Labyrinth seal disc need to be fitted and checked before dispatch.

**(iv) Guide Vane Arm**

Guide Vane Arm has to be filled with welding and then machining shall be done. The arm has to be adjusted to suitable diameter to match the bush new bush and its housing.

**(v) Repairing of Guide Vane**

Guide Vane surface need to be filled with welding material deposition for the area where there is erosion or pitting. Then its surface needs to be ground to the suitable geometry. The guide Vane shaft and face of guide vane need to be machined followed by weld deposition.

**(vi) Shaft Seal Casing and Seal Rings**

Shaft seal casing need to be inspected for the possible damage. The shaft seal casing needs to be manufactured new out of suitable sized Mild Steel disc. Seal rings need to be replaced.

**(vii) Shear Pins**

All shear pins must be manufactured new and replaced.

**(viii) Guide Vane Bush**

All Guide Vane bush (12 x 2 = 24) need to be replaced with suitable bush.

**(ix) Guide Vane Bush Cartage**

Guide Vane Bush Cartage (24 nos.) need to be replaced with new ones.

**(x) Guide Bearing Repairing**

Guide bearing surface need to be filled with Babbitt material with suitable process. Then the guide bearing must be machined to suitable dimension.

**(xi) Thrust Bearing Repairing**

Thrust bearing pads need to be removed and its surface to be filled with Babbitt material. Suitable *jig* need to be prepared and fitted on it followed by machining. Then it has to be installed in the thrust bearing.

**(xii) Coupling Rubber Bush**

Coupling between Turbine Shaft and Generator Shaft (6 nos.) is damaged. It has to be replaced with new ones.

**(xiii) Any other Work**

Any other maintenance works, not specifically mentioned above, has to be done by the manufacturer to fulfill the functional requirement as per the prevailing engineering practice.



**(d) Transportation to Powerhouse:**

Repaired machines have to be transported back to the powerhouse after completion of maintenance work. Proper care shall be taken to prevent from any damage during transportation.

**(e) Re Installation of Machines:**

Re-Installation of the machines has to be done after the machines. It has to undergo the testing and commissioning procedure as specified by AEPC/RERL guidelines.

In addition, the following needs to be conducted:

- (1) Provide drawings of the mechanical equipment for future use.
- (2) Problems arising if any, after installation, in the mechanical equipment shall be repaired immediately on notice by the client.
- (3) Provide advice and orientation class to the operators on regular operation and maintenance works.
- (4) List spare parts to be maintained in site with its related cost.

**4. Inputs from AEPC/RERL**

- (a) AEPC/RERL budget and relevant documents/materials and information
- (b) Input from relevant AEPC/RERL/SASEC personnel.

**5. Qualification of service provider**

- (a) Must be working in the field related to mini hydropower/Large hydropower.
- (b) Demonstrated experience in conducting such jobs in at least 2 similar jobs.

**6. Time**

The duration of this task shall be 3 (three) months from the date of signing the contract agreement with AEPC/RERL.

**7. Documents to be submitted by the Bidder (Eligibility Criteria)**

<b>SN</b>	<b>Documents</b>
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. 2076/2077
4	JV Agreement (in case of JV Submission)
5	Organizational Profile/Brochure—describing the nature of business, field of experience, licenses, certification and accreditations
6	Track records of Human resource- with list of similar services relevant to objective and scope of works included in this RFP.
7	Financial Proposal (price schedule) with signed cover letter including VAT (as per given format)

## 8. Selection/Evaluation Process

### **Method of Selection: Least cost Method**

The Purchaser shall select to award the Contract to the Bidder/service provider whose offer has been determined to be the lowest evaluated responsive Bid.

1	Eligibility Requirement are spelt out in Clause 7
2	Delivery and task completion Schedule: Final: Within 3 Months from the date of agreement.
3	Price Schedule proposed by the bidder
4	Terms of Reference and Scope of the task requirement
5	The Bidder/Service Provider shall demonstrate 2 similar experiences in the similar field. [In case of JV, at least one partner must meet the requirement]

## 9. Deliverables

The deliverables shall be as follows.

- (a) A well-functioning mechanical component of the plant as outlined in Scope of works.
- (b) A report outlining (i) investigation and fault-finding problems and results (ii) repair works description (iii) Installation works descriptions (iv) problem descriptions that occurred during conduction of repair and maintenance. (v) Recommendation for future that could be replicated in advance in other plants.

## 10. Duties and Taxes

The consultant shall pay all tariffs, duties, other taxes or charges levied by the GoN at any stage during the execution of the work.

## 11. 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.