

TERMS OF REFERENCE
FOR CONDUCTION OF REVIEW OF DETAILED ENGINEERING DESIGN OF
MINI HYDRO PROJECTS PROMOTED BY ALTERNATIVE ENERGY
PROMOTION CENTER

1 Introduction

Alternative Energy Promotion Center (AEPC) is implementing Renewable Energy for Rural Livelihood (RERL) program with support from UNDP-GEF. The new phase of RERL started in July 2014 and its major emphasis is to provide technical support to AEPC for implementation of mini-hydro, mini-grid and large scale solar systems to meet its national target. RERL aims to support micro/ mini hydro projects through technical assistance for survey and design, detailed engineering design (DED), financial closure by mobilizing resources from different stakeholders, training and operation modalities.

AEPC has prepared DED some reports of mini hydro projects with capacities up to 1000kW while others are under Study. In this context, the main aim of this ToR is to procure services of hydropower experts to review DED reports. AEPC/RERL intends to keep a roster of such experts.

2 Scope of works

It is expected that the expert will assess DED critically from the point of (a) cost reduction, (b) technical appropriateness and (c) operation and maintenance. The expert shall not go into very small details of DED. The scope of works shall include the following.

- Review hydrology with focus on suitability of different design discharges.
- Review topographical survey and make suggestion for improvements.
- Review design appropriateness in terms of sizing, component layout of civil structures including structural analysis Review adequacy in sizing of hydro mechanical and electromechanical equipment.
- Review adequacy in components of cost estimate structure.
- Review adequacy in sizing of major components of transmission and distribution structures.

A presentation on the assessment is mandatory

3 Completion period

The job has to be completed within two weeks from signing of contract.

4 Qualification of consultant

The expert should have Masters in civil/electrical/mechanical engineering and should have extensive experience in hydropower design. International experiences and experiences working with IPP will be an added advantage.

5 Estimate Budget and Activity Number

The budget for the will be borne from activity 2b.1.1 of AWP 2019

6 Terms of payment

100% upon submission of completion report. Expert fees shall be quoted as per attached in Annex.

7 Report and deliverables

The consultant should prepare reports as per the following format.

VOLUME-I,II,III,IV,V			
Page No	Paragraph No	Assessment	Reasons

8 Other taxes and duties

The consultant shall be subjected to pay all taxes and duties as per prevailing rules and regulations of GoN.

9 Documents to be submitted by the consultant

Signed CVs of the professional with quotation as per the format attached in Annex.

10 Acceptance of proposal

All rights are reserved with AEPC/RERL 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.

11 Selection process

Documents as per clause 9 will be collected from potential professionals and the job will be awarded to the qualified expert.

12 Force majeure

Without prejudice to their rights the government and the service provider shall not be held responsible nor 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 the 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.

ANNEX

**QUOTATION FOR CONDUCTION OF FOR CONDUCTION OF REVIEW OF
DETATILED ENGINEERING DESIGN**

(PLEASE FILL IN FOR THE AREA YOU ARE INTERESTED IN)

S.N	Particulars	Unit	Rate,NPR
1.	Review of DED Cost		
1.1	Civil Expert	Day	
1.2	Electrical Expert	Day	
1.3	Mechanical Expert	Day	