



Government of Nepal

Ministry of Energy, Water Resources and Irrigation
Alternative Energy Promotion Centre (AEPC)
Scaling Up Renewable Energy Program (SREP)

Request for Expression of Interest (REoI)

For

**Conducting Study of Detailed Assessment of Waste Potential and Preparation of
Program Document**

REoI Number: NP-AEPC-76815-CS-CQS

Project Name : Scaling Up Renewable Energy Program (SREP)-Extended Biogas Project

Office Name : Alternative Energy Promotion Centre (AEPC)

Office Address : Khumaltar Height, Lalitpur, Nepal

Grant No.: TF016552-The World Bank

Financing Agency: AEPC/SREP

13 October 2018

Table of Contents

A. Notice for Request for Expression of Interest	1
C. Brief Introduction of the Project and Term of Reference	3
D. Evaluation of Applicant’s REOI Application.....	9
E. REOI Formats	11
(Request to provide evidences of experience from employer)	14

A. Notice for Request for Expression of Interest

Published at Annapurna Post National Daily, Dated: 13 October, 2018

	<p>Government of Nepal Ministry of Energy, Water Resource and Irrigation Alternative Energy Promotion Centre (AEPC) Khumaltar Height, Lalitpur, Nepal Phone: 01 5539390/5539391 Fax: 01 5542397 Website: www.aepc.gov.np, Email: info@aepc.gov.np</p>
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Request for Expression of Interest (REoI)
Date of Notice Publication: 13 October 2018

Country: Nepal

NAME OF PROJECT: Scaling Up Renewable Energy Program (SREP), Extended Biogas project
Grant No.: TF016552-The World Bank

The Government of Nepal has received financing from the World Bank toward the cost of the Scaling up Renewable Energy Program in Low Income Countries (SREP), and intends to apply part of the proceeds for consulting services. The Alternative Energy Promotion Centre (AEPC) now invites eligible and qualified consulting firms ("Consultants") to indicate their interest in providing the following Services separately.

Ref. No.	Task and Title of the Assignment
NP-AEPC- NP-AEPC-76815-CS-CQS	Conducting Study of Detailed Assessment of Waste Potential and Preparation of Program Document

1. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services indicating the Ref. No. and Title of the assignment.
2. The selection criteria are: related to Consultant's Experience and Qualifications. The attention of interested Consultants is drawn to the World Bank's "The World Bank Regulations for IPF Borrowers, July 2011 ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest.
3. Interested eligible firms may obtain further information, inspect and download the REoI document from the website: www.aepc.gov.np.
4. Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications.
5. A Consultant will be selected in accordance with the Consultant Qualification-based Selection (CQS) Method set out in the WB Procurement regulations for IPF Borrowers.
6. Expected date of commencement of the assignment is 20 December 2018.
7. Expressions of interest (in hard copy) must be delivered manually to the address above by **17:00 hour's (local time) on or before 31 October 2018.**
8. Only the firm having the best experience and qualification shall be invited it to submit its technical and financial proposals for negotiations.
9. AEPC/SREP reserves the right to accept or reject, wholly or partially any or all the REoI application without assigning any reason, whatsoever.

B. Instructions for submission of Expression of Interest

1. Expression of Interest may be submitted by consultancy firm or a joint venture of consulting firms.
2. Expression of Interest should contain following information:
 - (i) A covering letter addressed to the representative of the client given below on the official letter head of company duly signed by authorized signatory.
 - (ii) Applicants shall provide the following information in the respective formats given in the REoI document:
 - Applicant's information (Annex-1)
 - General Experience of the Applicant Firm (Annex -2)
 - Specific Experience of Applicant Firm in the relevant field as specified in the ToR (Annex-3)
 - Details of similar assignments undertaken in the previous Five years (Annex-4)
 - Professional Employees of the Applicant Firm related to the assignment (Annex-5)
 - Annual Turnover information (Annex-6)
 - (iii) Applicants may submit additional information with their application but evaluation will be based on the information requested and included in the formats provided in the REoI document.
 - (iv) The REoI document may be downloaded from website given below.

The Request Expression of Interest (REoI) document must be duly completed and submitted at the following address and should be clearly marked as –
“REoI Application for Conducting Study of Detailed Assessment of Waste Potential and Preparation of Program Document.”

The Envelope should also clearly indicate the name and address of the Applicant.

- (v) The completed REoI Document must be submitted on or before the date mentioned in the “Invitation notice” at the following address. In case the submission falls on public holiday the submission can be made on the next working day. Any REoI Document received after the closing time for submission of proposals shall not be considered for evaluation.

Address:

Name of the Client: Alternative Energy Promotion Centre (AEPC)

Khumaltar Height, Lalitpur

Telephone: +9771-5539390, 5539391 Facsimile: +9771-5542397, 5539392

E-mail: info@aepec.gov.np

Website: www.aepec.gov.np

C. Brief Introduction of the Project and Term of Reference

1. Introduction

Nepal is one of six pilot countries identified for assistance under the Scaling-up Renewable Energy Program in Low Income Countries (SREP) by the SREP sub-committee. As one of three programs under the Strategic Climate Fund, SREP aims to demonstrate the social, economic and environmental viability of low carbon development pathways in the energy sector. In particular, the objectives of SREP in Nepal are to (i) leverage complementary credit and grant co-financing; (ii) bring about transformational impacts through scaling up energy access using renewable energy technologies (RETs), poverty reduction, gender and social inclusiveness and climate change mitigation; and (iii) ensure sustainable operations through technical assistance and capacity building. The Government of Nepal (GoN) had designated the Ministry of Finance (MoF) and the then Ministry of Population and Environment (MoPE) previously and now Ministry of Energy, Water Resource and Irrigation as the focal points for SREP. Ministry of Energy, Water Resource and Irrigation has designated the Alternative Energy Promotion Centre (AEPIC) as the lead agency for SREP-related activities. The Waste to Energy under SREP is considered a sub activity of Renewable Energy and hence the SREP supported projects are part of the Government's program activity, and is being implemented by AEPIC.

1. Background

Waste to Energy is relatively a new concept for Nepal. Large scale biogas productions from huge quantity of wastes from different sources are being explored. Plants with the size greater than 12 m³ are considered as large biogas plants. Under SREP, there are two different types of large sized biogas plants or energy projects prioritized for implementation viz. commercial plants and municipal solid waste (MSW) to energy plants. A national level waste to energy potential shall aid the program to know the expansion potential of the program in the near future. The SREP-Supported Extended Biogas Project aims to promote large off-grid biogas energy generation in the country where sponsors are commercial enterprises or municipalities. SREP seeks to deliver two primary categories of benefits from the use of its financial support: (i) increased access to renewable energy particularly large biogas and (ii) increased production of renewable energy. The project consists of two components: Technical Assistance and Financing of Investments. As per the Ministry of Industry, currently more than 6,000 no of industries and more than 180,000 small and cottage industries are registered in Nepal. Among them, 375 large industries and 12,800 small and cottage are agro and forest based similar number for service and tourism industries. In recent days, attraction of new generation people

towards animal farming and agro based production industries. In most of the industries as well as commercial entities, waste management is a matter of hassle at the same time almost all are using diesel generator set for their captive power use. Hence major focus area of this assignment is to collect waste potential data from all the industries and make best estimate of waste quantity. Currently there are 293 municipalities in Nepal. There is much data available for the 58 old municipalities as the older ones were established units under the ministry of federal affairs and local development with adequate staff resources

2. Objective

“To map the national waste to energy (biogas and electricity) potential from Commercial, Industrial Sector and Municipalities in Nepal”

3. Scope of work

The scope of this task has been broken down into two parts:

Part A:

The basic scope of Part A: work is necessary data/information collection from the whole country and development of nationwide GIS database of i) existing commercial sectors (livestock farms - cattle farms, pig farms and poultry farms) and ii) industries having high organic wastes like sugar mills, distilleries and breweries, food processing industries, hotels, large restaurants, private schools/collages, registered markets etc. From the total waste available from each source, the estimation of potential of biogas in terms of volume of biogas and electrical equivalent at present and forecasting for next ten years is the prime scope of the work. GIS mapping based on the waste potential GIS database shall remain an integral part of the assignment.

Part B:

The basic scope of Part B: work is necessary data/information collection from the whole country and development of nationwide GIS database of 293 municipalities. The waste quantification at present and forecasting for next ten years and quality of waste produced should be analysed. Similarly, from the total waste available from each municipality, the estimation of potential of biogas in terms of volume of biogas and/or electrical equivalent at present and forecasting next ten years is the prime scope of the work. GIS mapping based on the waste potential GIS database shall remain an integral part of the assignment.

Beyond this, general scope of this assignment includes identifying and analyzing some clusters which are geographically potential for implementation of large commercial and or municipal

biogas projects. Few parameters for selection of such cluster/pocket area might but not limited to the following are:

- Quantity of waste economically available for operating large scale biogas (bottling, pipeline, electricity generation or other end use)
- Availability of public or private land
- Potential investors
- Interest from local government
- Potential gas and fertilizer market
- Current status of fuel use pattern and waste management
- Social and environmental issues such as conservation area, vulnerable community etc.

4. Methodology

The Consultant should propose to and get agreement from the client on the detailed approaches and methodologies (including data/information collection in the field) for conducting this assignment. The consultant shall conduct field investigations and desk studies, collection of databases of existing commercial enterprises and industries with estimated volume of useful waste for anaerobic digestion, consultation with relevant stakeholders, owners/officials of each ventures etc.

The consultant shall conduct field investigations and desk studies, collection of databases of 293 municipalities with estimated volume of useful waste for anaerobic digestion, consultation with relevant municipality officials. The consultant shall work in close coordination with the AEPC/SREP project team to get input during site identification and preparation of the report.

5.1 Desk Study

Various information of National Waste to Biogas-Energy Potential Mapping need to collect and study. Questionnaire for relevant stakeholders need to be made and prepare for field visit.

5.2 Field visit

During this stage, consultant (Study team) need to visit potential commercial, industrial and municipal entities and collect actual data of potential waste.

5.3 Office work

Data collection from field visit should be analyzed, various group discussion need to be made among AEPC /SREP, World Bank Team and other experts of related field and final report should be prepared.

5. Organization of the study

The study shall be conducted in three phases. The consultant shall submit three different reports for each phase as deliverables.

- **First Phase:** Collection of data/information on quantity at present and forecasting next ten years and characteristics of waste available in existing commercial and industrial entities in Nepal for database.
- **Second Phase:** National quantitative estimation and cluster formation
- **Third Phase:** Presentation of data/information on GIS and propose detailed study for next phase of program to be launched

6. Time Duration

The proposed duration for the scope described above including study reports of three phases shall be of 6 months from the date of contract signing. Out of which, the first phase deliverable shall be accomplished within two months after the contract.

The exact timing shall be fixed during the contract agreement.

7. Budget

The total study cost should be written clearly both in figure and in words.

8. Outputs & Deliverables

- Three hard copies and 1 electronic copy of Inception Report with clear approach and methodology and time line etc. (2 weeks after the contract)
- Three hard copies and 1 electronic copy of the Draft Report (4 months after the contract)
- Three hard copies and 1 electronic copy of the Final Report (at the end of the contract)
- GIS database map (at the end of the contract)
- Cluster formation based on potential and no of such large biogas potential
- All of the items above shall be submitted for AEPC review and finalized taken into account received comments

9. Qualification of the Consultant:

The study team should be composed of at least the following professionals and support staff as per requirement:

- **Team Leader:** The team leader should have Master's degree in engineering, environment, energy and management or related field. He/she should have at least 10 years work experience in energy sector.
- **Engineer** with at least master's degree in the field of energy/environment and more than 3 years professional experience in the energy sectors, especially in large biogas and waste to energy sector.
- **GIS expert** with at least a master's degree in relevant field and 3 years of work experience.
- **Statistician** with at least master's degree and more than 3 years of experience.
- **Business Analyst** with at least an MBA or equivalent degree with more than 5 years of experience.
- **Support staff** (engineer or environmental scientist with bachelor's degree) with at least 2 years of experience in the large biogas technology to support the team above.

The Consultant shall submit the name(s) of the required human resources to be assigned for execution of the proposed project. The detailed CVs of the experts to be involved for the conduction of this assignment must be submitted in the technical proposal with their original signature and their commitment to provide the full time for this study.

10. Terms of Payment

Budget and Payments shall be made as per agreement. Proposed payment schedule shall be as following:

Payment Schedule:

- **Advance: Maximum 20% (Twenty) Percentage of agreement amount** - Advance against unconditional advance bank Guarantee from Class "A" Commercial Bank of Nepal. Advance will be paid in equal two installments; immediate after contract signature and progress of the assignment.
- **First: Maximum 10% (Ten) Percentage of agreement amount** - After submission and approval of Inception Report.
- **Second: Maximum 70% (Seventy) Percentage of agreement amount** - After submission and Approval of Draft Report.
- **Final: Remaining Agreement Amount** - After submission and Approval of Final Report. (TDS and Advance will be deducted as per rule)

2. The Right to Audit

The AEPC shall have the right to audit and inspect all books, records and underlying documentation relating or pertaining to contracts or agreements under AEPC for delivery of goods or services, kept by or under the control of the Consultant including, but not limited to those kept by the Consultant and its employees, agents, assigns, successors and sub-Consultants.

The Consultant shall maintain such books and records, together with such supporting or underlying documents and materials, for the duration of the contractor agreement and at least to the end of the following Government of Nepal Fiscal Year from the approved date of the completion of the assignment as per contract or agreement with AEPC/SREP.

A clause regarding this facility will be included in the contract document

3. Documents to be submitted by the Consultant

- a. A copy of Firm registration certificate (Updated renewed)
- b. A copy of PAN/VAT registration certificate
- c. Tax Clearance Certificate of last FY 2074/75
- d. Power of attorney to sign the document
- e. Self Declaration
- f. Signed CV of the professional
- g. Any Other relevant documents to prove eligibility and qualification

D. Evaluation of Applicant's REOI Application

Consultant's REOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

SN	<u>i) Eligibility Criteria</u>	Compliance
1	Copy of Company/Consultancy Firm Registration Certificate with updated renewed, Non Profitable Institution, NGO (Non Government Organization) and INGO are not eligible for submission of REOI and Proposal)	
2	Copy of PAN/VAT Registration Certificate	
3	Copy of Tax Clearance Certificate of F.Y. 2074/75 B.S.	
4	Minimum Years of Standing (at least 3 years)	
5	JV Agreement (in case of JV Submission) (JV with Non Profitable Institution, NGO/INGO not allowed) (if JV Submission)	
6	Power of attorney to sign the document	
7	Self Declaration* (Regarding not blacklisted, not ineligible to participate in the contract and has no punished in the business offence) , Commitment for Code of Ethics* and Commitment for adherence to Anti Corruption Policy *	
8	Minimum average annual Turnover of past recent three years NRs. 40,00,000.00 (NRs. 4 Million)	

*The Self Declaration and Power of attorney should be declared in writing in the official letter head of the Consulting Firm, and should be duly signed by the authorized person and stamped.

Note: All partners of JV submission including lead partner must be fulfilled the eligibility criteria except SN 5 & 7.

<u>ii) Ranking Criteria</u>	<u>Score</u>
General Experience of the Applicant firm based on its business registration	10
Specific Experience of Applicant firm as specified in the ToR (higher experience higher marks)	70
Organizational strength of Applicant firm	10
Average Annual Turnover of the Applicant Firm for the last Three years (Not Less than NRs. 40,00,000.00)	10
Total	100

Breakdown of the ranking criteria and scoring system will be as follow:

- General Experience of Applicant Firm (10 marks)
 - No experience (no mark)
 - per year 2 marks will be given for general experience in the basis of business registration but not exceeding 10 marks

Specific Experience of Applicant Firm as specified in ToR(70 marks)

- No experience (no mark)
 - Experience in any sort of RE Sector (10 marks)
 - Experience in Study of Biogas Potential Mapping or assessment of waste potential (35 marks)
 - Experience in preparation of program document in RE sector (10 marks)
 - Experience in feasibility study/detailed feasibility study in Biogas (10)
 - Experience in feasibility study/detailed feasibility study in RE Sector (5)
-
- Organizational strength of Applicant firm (10 marks)
 - If the Applicant firm has suitably qualified staff for each positions of Team Leader, and other human resources as described in ToR (10 marks)
 - There will be deduction of mark as follow:
 - **1 Team Leader: 4 Marks**
 - **Engineer: 2**
 - **GIS expert: 2**
 - **Statistician:2**
-
- Average Annual Turnover of the Applicant Firm (10 marks)
 - 10 marks will be given to the bidder with the highest average annual turnover among all the bidders. *[turnover less than NRs 4 million is not eligible]*
 - The other bidders will be given marks as follow:

Highest average annual turnover: A

Average annual turnover of X Proponent: B

Marks given to the X Proponent = $(B \div A) \times 10$

Consultant's REOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

Note: The consulting firm with the best qualification and relevant experience scoring highest marks shall be invited it to submit its technical and financial proposal for negotiations as per the Consultant's Qualification-based Selection (CQS) method of the World Bank guidelines

E. REOI Formats

- (i) Applicant's information (Annex-1)
- (ii) General Experience of the Applicant Firm (Annex -2)
- (iii) Specific Experience of Applicant Firm in the field of monitoring/verification of RE systems specified in the ToR (Annex-3)
- (iv) Details of similar assignments undertaken in the previous Three years (Annex-4)
- (v) Professional Employees of the Applicant Firm related to the assignment (Annex-5)
- (vi) Annual Turnover information (Annex-6)

Applicant's Information

(In case of the association or joint venture of two or more firms to be filled separately for each constituent member)

1. Name of Firm/Company:

2. Type of Constitution:

(Partnership/ Pvt Ltd/Public Ltd/ Public Sector/Joint Venture):

3. Date of Incorporation / Commencement of Business (Please specify):

4. Place of Incorporation:

5. Details of Services Provided:

6. Registered Office/Place of Business:

7. Telephone No; Fax No; E-Mail Address

8. Name of Authorized Contact Person / Designation/ Address/Telephone:

9. Name of Authorized Local Agent /Address/Telephone:

10. Consultant's Organization:

(Provide Company Profile with description of the background and organization of the Consultant and, if applicable, for each joint venture partner for this assignment.)

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal:

General Experience of the Applicant Firm

S. No.	Description of the project/s including place of implementation	Year of Implementation	Major Partner or Cooperative Agency	Remarks

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal:

Specific Experience of applicant firm/s specified in the ToR.

S. No.	Description of the project/s including place of implementation	Year of Implementation	Major Partner or Cooperative Agency	Remarks

(Request to provide evidences of experience from employer)

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal:

Details of similar assignments undertaken in the previous five years

(In case of the association or joint venture of two or more firms to be filled separately for each constituent member)

Assignment name:	Approx. value of the contract NRs:
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total N ^o of person-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract NRs:
Start date (month/year): Completion date (month/year):	N ^o of professional person-months provided by the joint venture partners or the Sub-Consultants:
Name of joint venture partner or sub-Consultants, if any:	Name of senior regular full-time employees of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):
Narrative description of Project:	
Description of actual services provided in the assignment:	
Note: Provide highlight on similar services provided by the consultant as required by the REOI assignment.	

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal:

Professional Employees of the Applicant Firm related to the assignment

S. No.	Name of Staff	Field of Expertise	Qualification	Years of Experience	Pre Qualification No. given by Program or other information

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal:

Annual Turnover of the Applicant Firm

Fiscal Year (BS)	Annual Turnover in NRs
2070/71	
2071/72	
2072/73	
2073/74	
2074/75	
Total	

Note: Pls. include the evidences to prove (Tax Clearance Certificate showing Annual Turnover)

Firm's Name:

Name and Signature of Authorized Person:.....

Official Seal: