



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

**Preparation of Training Modules to Train Large Biogas Construction Companies and Large Biogas Construction Companies and Conduct One Training Each for them to Familiarize with New Technologies Like CSTR/MIBR/FD and UBS Systems**

REoI Number: NP-AEPC-56013-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

31 May 2018



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# A. Notice for Request for Expression of Interest

Published at The Kathmandu Post National Daily, Dated: 31 May, 2018

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June 15, 2018

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ices:

controlling the forest fires due to lack of resources. "We lack the resource and technology to effectively combat wildfires that have been causing us a colossal loss every year," he said. According to the records at

an estimated loss of Rs 55 million. Police said the fire at Everest Colour Industry Pvt Ltd was the District Forest Office, Kailali lost around 25,000 hectares of forest cover to

Municipality-2. Police said Rs 800,000 cash, furniture, clothes and food items were destroyed in the fire. (PR) wildfires last year alone. There are 524 community forests in the district.

cial at the Chitwan National Park said the rhino attacked Bed Bahadur Mahat, 50, of Dhrubaghat on the banks of River at around 10:30 pm. (PR)



Government of Nepal  
 Ministry of Energy, Water Resource and Irrigation  
**Alternative Energy Promotion Centre (AEPCC)**  
 Khumaltar Height, Lalitpur, Nepal  
 Phone: 01 5539390/5539391 Fax: 01 5542397  
 Website: www.aepc.gov.np, Email: info@aepc.gov.np

## Request for Expression of Interest (REoI)

Date of Notice Publication: 31 May 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 (AEPCC) 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-56013-CS-CQS	Preparation of Training Modules to Train Large Biogas Construction Companies and Large Biogas Construction Companies and Conduct One Training Each for them to Familiarize with New Technologies Like CSTR/MIBR/FD and UBS Systems.
NP-AEPC-56016-CS-CQS	Conducting Detailed Feasibility Study and Preparation of Detailed Project Report (DPR) including Initial Environmental Examination (IEE) for Municipal Waste to Energy Project in Five Municipalities.

- 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.
- 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 2016 ("Consultant Guidelines)", setting forth the World Bank's policy on conflict of interest.
- Interested eligible firms may obtain further information, inspect and download the REoI document from the website: www.aepc.gov.np.
- Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications.
- 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.
- Expected date of commencement of the assignment is 01 August 2018.
- Expressions of interest (in hard copy) must be delivered manually to the address above by 17:00 hour's (local time) on or before 15 June 2018.
- Only the firm having the best experience and qualification shall be invited it to submit its technical and financial proposals for negotiations.
- AEPCC/SREP reserves the right to accept or reject, wholly or partially any or all the REoI application without assigning any reason, whatsoever

Kathmandupost - 2018 May 31 (2068 102196)



## **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.
3. 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 Preparation of Training Modules to Train Large Biogas Construction Companies and Large Biogas Construction Companies and Conduct One Training Each for them to Familiarize with New Technologies Like CSTR/MIBR/FD and UBS Systems*”

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

- (i) 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](mailto:info@aepec.gov.np)

Website: [www.aepec.gov.np](http://www.aepec.gov.np)



## C. Brief Introduction of the Project and Term of Reference

**Name of Assignment: Preparation of Training Modules to Train Large Biogas Construction Companies and Large Biogas Construction Companies and Conduct One Training Each for them to Familiarize with New Technologies Like CSTR/MIBR/FD and UASBS systems.**

### 1. Introduction

Nepal is also 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) has designated the Ministry of Finance (MoF) and the Ministry of Energy, Water Resources and Irrigation (MoEWI) as the focal points for SREP. MoEWI 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.

A continuous stirred tank reactor (CSTR) is a biogas reactor equipped with an impeller or other mixing device to provide efficient mixing. The name CSTR is often used to refer to an idealised agitated tank reactor used to model operation variables required to attain a specified output. Continuous stirred tank reactor (CSTR) is equipped with features to continuously feed and exhaust reactants is an example of a mechanically mixed flow reactor. Amongst many advantages of CSTR plants over conventional model, the low hydraulic retention time (HRT) proved to be very useful. The low HRT allows large volumes of waste to be digested within smaller digester enclosure, minimizing the space requirements and increasing throughput.

### 2. Background

AEPIC has classified the biogas plants according to the size of the plants in terms of volume. Sizes upto 8 m<sup>3</sup> are considered as domestic and sizes above 12 m<sup>3</sup> are considered as large biogas plants. AEPIC had recently hired a consultant to provide AEPIC with a set of standardized designs to be included in the subsidy policy. It was felt that most of the demands received by AEPIC for the construction of large biogas plants were mostly in the range between 20 to 35 m<sup>3</sup>, the consultant was requested to provide



AEPC with a set of drawings with detailed bill of quantity (BoQ) and detailed dimensions for biogas plants ranging from 12 to 35 m<sup>3</sup> (12, 15, 20, 25, 30, 35 m<sup>3</sup>) digester volume capacity. A validation workshop was conducted to share the proposed design with the stakeholders of the sector. Some comments were received and AEPC has incorporated the comments of the stakeholder into the new design. Similarly a construction manual was prepared to aid the construction companies during the construction of large biogas plants. The construction manual consists of chronological steps of the procedure to construct the large sized biogas plants.

However, GGC models proved to have certain limitations during construction of large plants especially above 100 cum. It was realized that land area requirements proved to be the biggest obstacle for scaling up plant sizes greater than 100 cum. Hence a design was envisaged in which the digester is placed above ground so that for larger requirements, the digester cylinder could be built vertically upwards, circumventing the requirements of large underground space. The biogas sub-component has envisaged preparing a construction manual for a standard CSTR plant and subsequently conduction of a training program for the staff members of pre-qualified companies on construction of large biogas plants. The training module should strictly follow the construction manual and the steps prescribed in it.

### **3. Objectives**

#### **3.1 Development Objectives**

To contribute in meeting the targets of SREP in providing solutions to target groups through promotion of large scale biogas plants.

The specific objective of the assignment is to:

- Prepare a construction manual with drawings on double membrane CSTR model biogas plant.
- Train 25 participants from the pool of pre-qualified large biogas consulting companies of AEPC as per the guidelines prepared by AEPC
- Train 10 participants from the pool of pre-qualified large biogas construction companies of AEPC on design, planning and construction methods of double membrane CSTR large sized biogas plants.

### **4. Scope of Work (activities)**

There shall be 25 trainees attending the consulting training program and the training period shall be of 3 days for consulting companies. Similarly 20 participants shall take part in the construction training program, including members of AEPC biogas subcomponent. The duration of the CSTR construction training program shall be limited to 7 days residential. The scope of work shall include following, but shall not necessarily be limited to the following:



- Prepare a construction manual with drawings with step to step guide on construction of a double membrane biogas plant.
- List out all the required equipment such as heat exchanger and its accessories, control unit, agitation unit, gas storage, gas upgrading equipment etc. and present it in a tabular form in the manual.
- Prepare the training curriculum in coordination with AEPC.
- Prepare the training modules including the power point presentations for all theory lectures and distribute handouts for each session.
- Approve the training manual from AEPC.
- Distribute the training manual on construction of large biogas plants.
- Arrange for a venue to conduct practical training. The trainees should be able to plan the lay out and do hands-on construction of the civil components of biogas plant.
- Demonstrate the construction of inlet, digester, outlet, compost pits along with all subsidiary civil components of the CSTR biogas plant.
- Arrange for logistics for the participants attending the training program.

The logistics shall include the following:

- Training hall
- Stationeries (note books, pens, etc)
- Beamer
- Bags
- Arrange for food and accommodation for the participants during the entire training period.
- Arrange for transportation for participants to travel from the training hall to the designated construction site during practical sessions of the training.
- Arrange for all human resources required for the training program.
- Smoothly conduct the training.
- Prepare a training conduction report after the completion of training.
- In association with AEPC, arrange for certificates to be distributed for successful participants during the training.

## **5. Time**

The consultant is expected to complete whole task within 4 (Four) months from the date of contract agreement.



## 6. Deliverables (output)

The consultant shall prepare an Inception Report (training preparation report) within one week after signing the agreement and a draft report after conducting the training within 1 week and final training completion report should be submitted within 7 days of draft report submission. The draft report shall be submitted by the consultant to AEPC for comments and upon feedback, a final report including training manuals (Two hard copies and e-copy) shall be submitted within one week after comments (if any) on the draft report.

## 7. Qualification of the Consulting Firm

The consultant should have experiences in RE technology, consulting services in large biogas and waste to energy and conducting training for large biogas construction and consulting. The consultant should have knowledge and practical experience on large biogas systems for waste to energy plants, specifically capable of providing hands on skills on large biogas installation.

### Team Composition

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

- **Team Leader:** with at least Masters Degree in the field of Engineering/science/energy/environment/management, economics or equivalent in related discipline and more than 10 years experience in renewable energy sector.
- **International Biogas Expert:** with at least Master's Degree in the field of Engineering/science/energy/environment/and more than 10 years professional hands on experience in dealing with CSTR biogas technology. Experience in the Nepalese biogas sector would be an advantage.
- **Environmental and Social Safeguard Expert:** with at least Masters Degree in the field of environment/sociology or equivalent in related discipline and more than 5 years experience in related field.
- **Mechanical or civil Engineer:** with at least 2 years of experience in preparation of manuals and experience in biogas sector to support the team for preparation of construction manual and support during the training program.
- **Training Facilitator:** with a Bachelor's degree in any discipline and having experience in conduction of trainings in the past.

The detailed CVs of the experts to be involved for the conduction of this training must be submitted in the technical proposal with their original signature and their commitment to provide the full time for this training.

## 8. Duties and Taxes

The consulting firm shall pay all tariffs, duties, other taxes or charges levied by the



Government of Nepal at any stage during the execution of the work.

**9. 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 2073/74
- 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 EOI 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 EoI and Proposal)	
2	Copy of VAT Registration Certificate	
3	Copy of Tax Clearance Certificate of F.Y. 2073/74 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 documents	
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. 25,00,000.00 (NRs. 2.5 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>
Experience of Applicant/firm	10
Experience of Applicant in the field in RE technology as specified in the ToR	35
Professional Employees of the Applicant/Firm (Only assignment related experts to be considered)	45
Average Annual Turnover of the Applicant Firm for the last Three years (Not Less than NRs. 25,00,000)	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 but not exceeding 10 marks

Experience of Applicant in the field in RE technology and experience in Large Biogas in any sort of consulting services /Large Biogas Construction Training/ Large Biogas Consulting Training of the Firm (30 marks)

- No experience (no mark)
  - Experience in any sort of RE Sector (10 marks)
  - Experience in Large Biogas in any sort of consulting services (10 marks)
  - Experience in Large Biogas Construction Training (5 marks)
  - Experience in Large Biogas Consulting Training (5 marks)
- Professional Employees of the consultants related to the assignment (45 marks)
    - If the consultant has suitably qualified staff for each positions of Team Leader, and other human resources as described in ToR (50 marks)
    - There will be deduction of mark as follow:
      - If none of the proposed staff fulfill the qualification criteria for Team Leader (- 10 marks)
      - International Biogas Expert-(- 25 marks)
      - Engineer (- 10 marks)
      - Training Facilitator (- 5 marks)

Note: The same staff will not be counted for more than one position.

- 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 not less than NRs 2.5 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 EOI 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. EOI 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:



Annex - 3

Specific Experience of applicant firm in RE technology, experience in Large Biogas in any sort of consulting services, Large Biogas Construction Training, Large Biogas Consulting Training etc as 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 <sup>o</sup> 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 <sup>o</sup> 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 EOI assignment.	

Firm's Name: .....

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

Official Seal:





Annex - 6

Annual Turnover of the Applicant Firm

Fiscal Year (BS)	Annual Turnover in NRs
2069/70	
2070/71	
2071/72	
2072/73	
2073/74	
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: