



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 Detailed Feasibility Study and Preparation of Detailed Project Report (DPR) including Initial Environmental Examination (IEE) for Municipal Waste to Energy Project in Five Municipalities

REoI Number: **NP-AEPC-56016-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

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. 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)

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 June 15, 2018
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Government of Nepal
 Ministry of Energy, Water Resource and Irrigation
Alternative Energy Promotion Centre (AEPIC)
 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 (AEPIC) 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 to submit its technical and financial proposals for negotiations.
- AEPIC/SREP reserves the right to accept or reject, wholly or partially any or all the REOI application without assigning any reason, whatsoever

Kathmandu Post - 31 May 2018 (2068/02/196)



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

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) has 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 (AEPC) as the lead agency for SREP-related activities.

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. The municipalities willing to develop the waste to energy project under this program are expected to partner with private entrepreneurs bringing technology to invest in the waste to energy project for commercial use.

2. Background

Waste management in urban centers of Nepal has become an issue that requires imminent attention. Generating energy from waste is a rather new concept in Nepal. There are a few small scale projects being implemented, but none of the projects have been documented on a municipal scale where waste is being converted to energy. Production of biogas from municipal waste is an option to mitigate the ever growing demand for energy in Nepal.

Biogas is seen as a comparatively successful and lucrative business in rural Nepal. These biogas plants are mainly based on cattle manure as feedstock and are mainly popular in rural areas. But in the urban and semi urban areas, a huge resource for biogas production is being wasted. Landfill being the only destination of MSW in most of the other big cities of Nepal, it is creating huge environmental problems. This waste has the potential to be converted into wealth by means of biogas which can contribute to energy production as a renewable energy source.

Mid Term Review of SREP is recently held. AEPC/SREP need to conduct detailed feasibility study of some municipal projects as agreed in Mid Review of the Programme . In this regard, AEPC/SREP is planning to carry out detailed feasibility study on the potentiality of waste to energy projects in **5 municipalities (covering metropolitan cities, sub-metropolitan cities and municipalities** which have significant waste generation quantity and have shown considerable interest in the project.

3. Objective

To conduct the detailed feasibility study and Preparation of detailed Project Report (DPR) including Initial Environmental Examination (IEE) for waste to energy projects in **following 5 municipalities** to determine the biogas potential from organic waste fraction of the Cities.



- A. Birgunj Sub-Metropolitan City, Parsa, Province No.2, Nepal
- B. Janakpur Sub-Metropolitan City, Dhanusa, Province No.2, Nepal
- C. Butwal Sub-Metropolitan City, Rupendehi, Province No.4, Nepal
- D. Siddarthanagar Municipality, Rupendehi, Province No.4, Nepal
- E. Suryabinayak Municipality, Bhaktapur, Province No.3, Nepal

4. Scope of Work

Determination of Potential of Biogas from the Municipal Solid Waste of the Municipalities by:

- Quantification of the waste production and collection in the municipalities. The data has to be collected in association with the municipalities.
- Determination of the organic waste fraction of the different samples of waste using an approved waste characterization protocol in the municipalities.
- Analyze the an-aerobically digestible waste fraction from the organic fraction of the municipalities.
- Assess the potential of biogas energy from the waste fractions generated and collected in the municipalities.
- Recommend sorting and pre-treatment options for extracting energy from the organic waste fraction and recommend treatment processes.
- Obtain information and evaluate technologies suitable for minimizing the amount of waste going to landfill.
- Detailed design including detailed drawing, planning and lay out (up to 3D system drawing), single line diagram.
- Initial Environmental Examination (IEE) of proposed sites
- Gender and Social safeguard assessment
- Risk Assessment and mitigation measures
- Financial Analysis and possible market for the produced gas/electricity and fertilizer
- Recommend proven technologies readily available to treat solid waste to help meet the relevant environmental and other waste management obligations along with pre-digestion, digestion and post digestion of the digested slurry.

Beside the above mentioned scope, the consulting firm should perform;

- Recommend preferred technology and potential site where such a facilities may be developed in each municipalities.
- Propose a project timeframe for the development of the facilities.
- Analyze the economics associated with biogas use.

5. Methodology

The Consultant should mention the detailed approaches and methodology for conducting this assignment. The consultant shall conduct a desk study, consultation with relevant stakeholders, municipality officials, field work, review of relevant technological options available, and recommend the most suitable and cost-effective approach for Nepal's context. The consultant shall work in close coordination with AEPC/SREP and the municipalities to get inputs during site identification, preparation of the report. The consultant shall prepare the Detailed Feasibility Study reports in the format as prescribed in "AEPC Detailed Feasibility Study Guidelines-MSW Biogas."

6. Timing

The proposed duration for the scope described above including study reports and production of the final report shall be of 4 months. The exact timing of each activity shall



be fixed during the Contract Agreement.

7. Terms of Payment

Budget and Payment 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)

8. Outputs and Deliverable

- One hard copies and one electronic copy of the draft study reports after the survey.
- Three hard copies and 1 electronic copy of the final reports.
- All of the items above shall be submitted first as drafts for AEPC/SREP review and comment and then as final reports.

9. Qualification of the Human Resources Requirement

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

- **Team Leader:** One Team Leader with at least Masters Degree in the field of science/energy/environment/water and sanitation/management or economics and more than 10 years experience in renewable energy sector.
- **Five Environmental Expert:** Environmental Experts with at least Masters Degree in the field of energy/environment with more than 5 years professional experience in the energy/environment sector.
- **Five Social Expert:** Social Experts with at least Masters Degree in the field of Sociology and more than 5 years of professional experience in the safeguard related field
- **Five Field Engineer:** Five Engineers with at least Masters Degree in the field of engineering/energy/environment and more than 3 years professional experience in the energy sectors. Preference shall be given to the engineers having proven experience in biogas sector.
- **Five Financial Analyst:** Financial Analysts with at least MBA or equivalent and more than 5 years of professional experience in financial analysis of business plan
- **Ten Waste quantity Enumerators:** Waste quantity enumerators (surveyors) with at least Bachelor degree in engineering.
- **Five Support staff:** Support staffs with at least Bachelors in any discipline with one year experience on office work.

The Consultant shall submit the name(s) of the required human resources to be assigned for the 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 during RFP phase with their original signature and their commitment to provide full time for this study.

10. 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 contract or 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

11. 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 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. 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 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>
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. 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 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 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:



Annex - 3

Specific Experience of applicant firm in RE technology, experience to the similar assignment 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 ^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:



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: