

REQUEST FOR PROPOSALS

CONSULTANCY SERVICES

FOR

**“Installation of Biogas Supplemented Agriculture
Tubewells for Irrigation Purpose in Punjab”
(Fast Track Basis)**

**GOVERNMENT OF THE PUNJAB, AGRICULTURE
DEPARTMENT, LAHORE**

(January 2014)

Section 1: Letter of Invitation

Date: _____

SUBJECT: LETTER OF INVITATION

1. The Government of the Punjab, Agriculture Department is planning to install biogas tubewells (20,000 initially) by contracting firms on turnkey basis. The services of an international consultant firm or as joint venture with national firms are required to prepare design and specifications of biogas plants (fixed dome & floating gas holder type) with digester volume of 25m³, 40m³ and 50m³ etc. and supervision of construction of biogas plants and its connection with diesel tubewells.
2. The Government of Punjab invites technical and financial proposals in two separate envelopes to provide the following consulting services: **Consultancy Services for Construction of Twenty Thousand Biogas Plants and its Connection with Diesel Tubewells for Irrigation Purposes in the Punjab Province of Pakistan.** Details on the services are provided in the Terms of Reference attached.
3. The Consultant will be selected under the Selection Method: **Least cost method** and procedures, in accordance with the **Punjab Procurement Regularity Authority Rules 2014.**
4. The RFP includes the following additional documents:
 - Section 2 - Instructions to Consultants (including Data Sheet)
 - Section 3 - Technical Proposal - Standard Forms
 - Section 4 - Financial Proposal - Standard Forms
 - Section 5 - Terms of Reference
5. It is mandatory for proposals to be made using the Standard Forms of the RFP. Proposals that are not on the prescribed format may be discarded. If any information required in the forms is found missing, or written elsewhere, no credit will be given in the relevant section of the evaluation.
6. Firms should submit details of **five (05) number of relevant assignments** (supervision of construction of Biogas plants and its connection with tube wells) completed by them for technical evaluation using the prescribed format. Assignments submitted beyond the given number will not be considered.
7. CVs of key personnel corresponding to the list given in the Data Sheet should provide details of **5 relevant assignments** done by the individual in the past; including project wise experience with exact time duration

8. Further following documents must be attached:

- Certificate of registration with approved professional body along with renewal letter for the year 2014.
- Copy of Registration with Securities & Exchange Commission or Registrar of Firms or any other Authority.
- Copy of Registration with Income Tax Department.
- Audited statements of accounts and income tax returns for the last three (3) years.
- A certificate / affidavit that the firm is not blacklisted by any Govt. / Autonomous Body
- Processing fee – PAK Rs. 5,000/- (Rupees Five Thousand) or equivalent amount in US\$ in the form of pay order / draft in the name of Director General Agriculture (Field) Punjab, Lahore.

Agriculture Department reserves the right to reject one or all proposals without assigning any reason

Yours Sincerely,

(Dr. MUHAMMAD BASHIR)
DIRECTOR GENERAL AGRICULTURE
(FIELD) PUNJAB,
21-DAVIS ROAD LAHORE

Section 2: Instructions to Consultants

Definitions

- (a) “Client” means the organization with which the selected Consultant signs the Agreement for the Services.
- (b) “Consultant” means any entity or person that may provide or provides the Services to the Client under the Contract.
- (c) “Contract” means the Contract signed by the Parties and all the attached documents.
- (d) “Data Sheet” means such part of the Instructions to Consultants used to reflect specific conditions.
- (e) “Day” means calendar day.
- (f) “Government” means the Government of the Punjab, Agriculture Department.
- (g) “Instructions to Consultants” means the document, which provides shortlisted Consultants with all information needed to prepare their Proposals.
- (h) “LOI” means the Letter of Invitation included in the RFP as Section 1 being sent by the Client to the shortlisted Consultants.
- (i) “Personnel” means professionals and support staff provided by the Consultant or by any Sub-Consultant and assigned to perform the Services or any part thereof; “Foreign Personnel” means such professionals and support staff who at the time of being so provided had their domicile outside Pakistan; “Local Personnel” means such professionals and support staff who at the time of being so provided had their domicile inside Pakistan.
- (j) “Proposal” means the Technical Proposal and the Financial Proposal.
- (k) “RFP” means this Request for Proposal prepared by the Client for the selection of Consultants, based on the Punjab Standard RFP.
- (l) “Services” means the work to be performed by the Consultant pursuant to the Contract.
- (m) “Sub-Consultant” means any person or entity with whom the Consultant sub-contracts any part of the Services.
- (n) “Terms of Reference” (TOR) means the document included in the RFP as Section 5 which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.
- (o) “Short Listed Firms” means the firms meeting the prescribed conditions given at Sr. No. 8 of the invitation letter above.

1. Introduction

- 1.1 The Client named in the Data Sheet will select a consulting firm/organization (the Consultant), in accordance with the method of selection specified in the Data Sheet.
- 1.2 The Shortlisted Consultants (firms meeting the prescribed conditions given at Sr.No. 8 of the invitation letter) are invited to submit a Technical Proposal and a Financial Proposal for consulting services required for the assignment named in the Data Sheet. The proposals should be in separate marked and sealed envelopes. The Proposal will be the basis for Contract negotiations and ultimately for a signed Contract with the selected Consultant.
- 1.3 Consultants should familiarize themselves with assignment conditions and take them into account in preparing their Proposals. To obtain first-hand information on the assignment, Consultants are encouraged to visit the Client before submitting a proposal and to attend a pre-proposal conference if one is specified in the Data Sheet. Attending the pre-proposal conference is optional. Consultants should contact the Client's representative named in the Data Sheet to obtain additional information on the pre-proposal conference. Consultants should ensure these officials are informed well-ahead of time in case they wish to visit the Client.
- 1.4 The Client will timely provide at no cost to the Consultants the inputs and facilities specified in the Data Sheet, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.
- 1.5 Consultants shall bear all costs associated with the preparation and submission of their proposals and agreement negotiation. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultants.

Conflict of Interest

- 1.6 Government of Punjab, Agriculture Department policy requires that Consultants provide professional, objective, and impartial advice and at all times hold the Client's interests paramount, strictly avoid conflicts with other assignments or their own corporate interests and act without any consideration for future work.
 - 1.6.1 Without limitation on the generality of the foregoing, Consultants, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:

Conflicting activities

(i) A firm that has been engaged by the Client to provide goods, works or services other than consulting services for a project, and any of its affiliates, shall be disqualified from providing consulting services related to those goods, works or services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods or works or services other than consulting services resulting from or directly related to the firm's consulting services for such preparation or implementation. For the purpose of this paragraph, services other than consulting services are defined as those leading to a measurable physical output, for example surveys, exploratory drilling, aerial photography, and satellite imagery.

Conflicting assignments

(ii) A Consultant (including its Personnel and Sub-Consultants) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Client. For example, a Consultant hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project, and a Consultant assisting a Client in the privatization of public assets shall not purchase, nor advise purchasers of, such assets. Similarly, a Consultant hired to prepare Terms of Reference for an assignment should not be hired for the assignment in question.

Conflicting relationships

(iii) A Consultant (including its Personnel and Sub-Consultants) that has a business or family relationship with a member of the Client's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment, (ii) the selection process for such assignment, or (iii) supervision of the Contract, may not be awarded an Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Government of Punjab, Agriculture Department throughout the selection process and the execution of the Contract.

1.6.2 Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.

1.6.3 No agency or current employees of the Client shall work as Consultants under their own ministries, departments or agencies. Recruiting former government employees of the Client to work for their former ministries, departments or agencies is acceptable provided no conflict of interest exists. When the Consultant nominates any government employee as Personnel in their technical proposal, such Personnel must have written certification from their government or employer confirming that they are on leave without pay from their official position and allowed to work full-time outside of their previous official position. Such certification shall be provided to the Client by the Consultant as part of his technical proposal.

**Unfair
Advantage**

1.6.4 If a shortlisted Consultant could derive a competitive advantage from having provided consulting services related to the assignment in question, the Client shall make available to all shortlisted Consultants together with this RFP all information that would in that respect give such Consultant any competitive advantage over competing Consultants.

**Fraud and
Corruption**

(b) 1.7. The Government of Punjab, Agriculture Department requires Consultants participating in its projects to adhere to the highest ethical standards, both during the selection process and throughout the execution of a contract. In pursuance of this policy, the Government of Punjab, Agriculture Department defines, for the purpose of this paragraph, the terms set forth below as follows:

(i) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;

(ii) “fraudulent practice” means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;

(iii) “collusive practices” means a scheme or arrangement between two or more consultants with or without the knowledge of the Client, designed to establish prices at artificial, noncompetitive levels;

(iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.

(c) will reject a proposal for award if it determines that the Consultant recommended for award has, directly or

through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question;

- (d) will sanction a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a Government of Punjab, Agriculture Department contract if at any time it determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a Government of Punjab, Agriculture Department contract; and
- (e) will have the right to require that a provision be included requiring Consultants to permit the Government of Punjab, Agriculture Department to inspect their accounts and records and other documents relating to the submission of proposals and contract performance, and have them audited by auditors appointed by the Government of Punjab, Agriculture Department.

1.7 Consultants, their Sub-Consultants, and their associates shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Punjab, Agriculture Department in accordance with the above para. 1.7. Furthermore, the Consultants shall be aware of the provisions on fraud and corruption stated in the specific clauses in the General Conditions of Contract.

1.8 Consultants shall furnish information on commissions and gratuities, if any, paid or to be paid to agents relating to this proposal and during execution of the assignment if the Consultant is awarded the Contract, as requested in the Financial Proposal submission form (Section 4).

Only one Proposal

1.9 Shortlisted Consultants may only submit one proposal. If a Consultant submits or participates in more than one proposal, such proposals shall be disqualified.

Proposal Validity

1.10 The Data Sheet indicates how long Consultants' Proposals must remain valid after the submission date. During this period, Consultants shall maintain the availability of Professional staff nominated in the Proposal. The Client will make its best effort to complete negotiations within this period. Should the need arise, however, the Client may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultants could submit new staff in replacement, who

would be considered in the final evaluation for contract award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals.

Eligibility of Sub-Consultants

1.11 In case a shortlisted Consultant intends to associate with Consultants who have not been shortlisted and/or individual expert(s), such other Consultants and/or individual expert(s) shall be subject to the eligibility criteria set forth in the Guidelines.

2. Clarifications and Amendment of RFP Documents

2.1 Consultants may request a clarification of any of the RFP documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent in writing, or by standard electronic means to the Client's address indicated in the Data Sheet. The Client will respond in writing, or by standard electronic means and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under para. 2.2.

2.2 At any time before the submission of Proposals, the Client may amend the RFP by issuing an addendum in writing or by standard electronic means. The addendum shall be sent to all Consultants and will be binding on them. Consultants shall acknowledge receipt of all amendments. To give Consultants reasonable time in which to take an amendment into account in their Proposals the Client may, if the amendment is substantial, extend the deadline for the submission of Proposals.

3. Preparation of Proposals

3.1 The Proposal (see para. 1.2), as well as all related correspondence exchanged by the Consultants and the Client, shall be written in the language (s) specified in the Data Sheet.

3.2 In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Proposal.

3.3 While preparing the Technical Proposal, Consultants must give particular attention to the following:

- (a) If a shortlisted Consultant considers that it may enhance its expertise for the assignment by associating with other Consultants in a joint venture or sub-consultancy, it may associate with either (a) non-shortlisted Consultant(s), or

(b) shortlisted Consultants if so indicated in the Data Sheet. A shortlisted Consultant must first obtain the approval of the Client if it wishes to enter into a joint venture with any other shortlisted Consultant(s). In case of association with non-shortlisted Consultant(s), the shortlisted Consultant shall act as association leader. Any associations must be clearly indicated in the technical proposal. In case of a joint venture, all partners shall be jointly and severally liable and shall indicate who will act as the leader of the joint venture.

- (b) For fixed-budget-based assignments, the available budget is given in the Data Sheet, and the Financial Proposal shall not exceed this budget.
- (c) Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.

**Technical
Proposal
Format and
Content**

3.4 The Technical Proposal shall provide the information indicated in the following paras from (a) to (g) using the attached Standard Forms (Section 3). Paragraph (c) (ii) indicates the recommended number of pages for the description of the approach, methodology and work plan of the Technical Proposal. A page is considered to be one printed side of A4 or letter size paper.

- (a) A brief description of the Consultants' organization and an outline of recent experience of the Consultants (each partner in case of joint venture) on assignments of a similar nature is required in Form TECH-2 of Section 3. For each assignment, the outline should indicate the names of Sub-Consultants/ Professional staff who participated, duration of the assignment, contract amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultant was legally engaged by the Client as a firm or as one of the major firms within a joint venture. Assignments completed by individual Professional staff working privately or through other consulting firms cannot be claimed as the experience of the Consultant, or that of the Consultant's associates, but can be claimed by the Professional staff themselves in their CVs. Consultants should be prepared to substantiate the claimed experience if so requested by the Client.
- (b) Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/ effectiveness of the assignment; and on requirements for counterpart staff and facilities including:

administrative support, office space, local transportation, equipment, data, etc. to be provided by the Client (Form TECH-3 of Section 3).

- (c) A description of the approach, methodology and work plan for performing the assignment covering the following subjects: technical approach and methodology, work plan, and organization and staffing schedule. Guidance on the content of this section of the Technical Proposals is provided under Form TECH-4 of Section 3. The work plan should be consistent with the Work Schedule (Form TECH-8 of Section 3), which will show in the form of a bar chart the timing proposed for each activity.
- (d) The list of the proposed Professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks (Form TECH-5 of Section 3).
- (e) Estimates of the staff input (staff-months of foreign and local professionals) needed to carry out the assignment (Form TECH-7 of Section 3). The staff-months input should be indicated separately for home office and field activities, and for foreign and local Professional staff.
- (f) CVs of the Professional staff signed by the staff themselves or by the authorized representative of the Professional Staff (Form TECH-6 of Section 3) along with their Computerized National Identity Card numbers (if local) or Passport numbers (if foreign).
- (g) A detailed description of the proposed methodology and staffing for training, if the Data Sheet specifies training as a specific component of the assignment.

3.5 The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non responsive.

Financial Proposals

3.6 The Financial Proposal shall be prepared using the attached Standard Forms (Section 4). It shall list all costs associated with the assignment, including (a) remuneration for staff (foreign and local, in the field and at the Consultants' home office), and (b) reimbursable expenses indicated in the Data Sheet. If appropriate, these costs should be broken down by activity and, if appropriate, into foreign and local expenditures. All activities and items described in the Technical Proposal must be priced

separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

Taxes

- 3.7 The Consultant may be subject to local taxes (such as: value added or sales tax or income taxes on non resident Foreign Personnel, duties, fees, levies) on amounts payable by the Client under the Agreement. The Client will state in the Data Sheet if the Consultant is subject to payment of any taxes.
- 3.8 Consultants should express the price of their services in Pakistan Rupees. Prices in other currencies should be converted to Pakistan Rupees using the selling rates of exchange given by the State Bank of Pakistan for the date indicated in the Data Sheet.
- 3.9 Commissions and gratuities, if any, paid or to be paid by Consultants and related to the assignment will be listed in the Financial Proposal Form FIN-1 of Section 4.

4. Submission, Receipt, and Opening of Proposals

- 4.1 The original proposal (Technical Proposal and, if required, Financial Proposal; see para. 1.2) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultants themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of Section 3, and FIN-1 of Section 4.
- 4.2 An authorized representative of the Consultants shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign. The signed Technical and Financial Proposals shall be marked "ORIGINAL".
- 4.3 The Technical Proposal shall be marked "ORIGINAL" or "COPY" as appropriate. The Technical Proposals shall be sent to the addresses referred to in para. 4.5 and in the number of copies indicated in the Data Sheet. All required copies of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies of the Technical Proposal, the original governs.
- 4.4 The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL" Similarly, the original Financial Proposal (if required under the selection method indicated in the Data Sheet) shall be placed in a sealed envelope

clearly marked "FINANCIAL PROPOSAL" followed by the name of the assignment, and with a warning "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**" The envelopes containing the Technical and Financial Proposals shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address and title of the Assignment, clearly marked "**DO NOT OPEN, EXCEPT IN PRESENCE OF THE OFFICIAL APPOINTED, BEFORE SUBMISSION DEADLINE**". The Client shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as stipulated. This circumstance may be case for Proposal rejection. If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute grounds for declaring the Proposal non-responsive.

4.5 The Proposals must be sent to the address/addresses indicated in the Data Sheet and received by the Client no later than the time and the date indicated in the Data Sheet, or any extension to this date in accordance with para. 2.2. Any proposal received by the Client after the deadline for submission shall be returned unopened.

4.6 The Client shall open the Technical Proposal immediately after the deadline for their submission. The envelopes with the Financial Proposal shall remain sealed and securely stored.

5. Proposal Evaluation

5.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultants should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by Consultants to influence the Client in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Consultants' Proposal.

Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

Evaluation of Technical Proposals

5.2 The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria, and point system specified in the Data Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.

- Financial Proposals for QBS**
- 5.3 Following the ranking of technical Proposals, when selection is based on quality only (QBS), the first ranked Consultant is invited to negotiate its proposal and the Contract in accordance with the instructions given under para. 6 of these Instructions.
- Public Opening and Evaluation of Financial Proposals (only for QCBS, Fixed Budget Selection, and Least-Cost Selection)**
- 5.4 After the technical evaluation is completed, the Client shall inform the Consultants who have submitted proposals the technical scores obtained by their Technical Proposals, and shall notify those Consultants whose Proposals did not meet the minimum qualifying mark or were considered non responsive to the RFP and TOR, that their Financial Proposals will be returned unopened. The Client shall simultaneously notify in writing Consultants that have secured the minimum qualifying mark, the date, time and location for opening the Financial Proposals. Consultants' attendance at the opening of Financial Proposals is optional. The opening date shall be set so as to allow interested Consultants sufficient time to make arrangements for attending the opening.
- 5.5 Financial Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. The name of the Consultants, and the technical scores of the Consultants shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying mark will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded.
- 5.6 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures, the formers will prevail. In addition to the above corrections, as indicated under para. 3.6, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items. In case an activity or line item is quantified in the Financial Proposal differently from the Technical Proposal, (i) if the Time-Based form of contract has been included in the RFP, the Evaluation Committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity and correct the total Proposal cost, (ii) if the Lump-Sum form of contract has been included in the RFP, no corrections are applied to the Financial Proposal in this respect.

5.7 **The lowest evaluated Financial Proposal shall be given maximum score and considered for award of contract.**

5.8 In the case of Fixed-Budget Selection, the Client will select the firm that submitted the highest ranked Technical Proposal within the budget. Proposals that exceed the indicated budget will be rejected. **In the case of the Least-Cost Selection, the Client will select the lowest proposal among those that passed the minimum technical score.** In both cases the evaluated proposal price according to para. 5.6 shall be considered, and the selected firm is invited for negotiations.

**6. Negotiations
Award of
Contract**

6.1 Negotiations will be held at the date and address indicated in the Data Sheet. The invited Consultant will, as a pre-requisite for attendance at the Negotiations, confirm availability of all Professional staff. Failure in satisfying such requirements may result in the Client proceeding to negotiate with the next-ranked Consultant. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude a Contract.

**Technical
negotiations**

6.2 Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, and organization and staffing, and any suggestions made by the Consultant to improve the Terms of Reference. The Client and the Consultants will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract as "Description of Services". Special attention will be paid to clearly defining the inputs and facilities required from the Client to ensure satisfactory implementation of the assignment. The Client shall prepare minutes of negotiations, which will be signed by the Client and the Consultant.

**Financial
negotiations**

6.3 If applicable, it is the responsibility of the Consultant, before starting financial negotiations, to determine the tax amount to be paid by the Consultant under the Contract. The financial negotiations will reflect the agreed technical modifications in the cost of the services. In the cases of QCBS, Fixed-Budget Selection, and the Least-Cost Selection methods, financial negotiations can involve the remuneration rates for staff or other proposed unit rates if there is a revision of scope or if the bid rate exceeds the available budget. For other methods, Consultants will provide the Client with the information on remuneration rates described in the Appendix attached to Section 4 - Financial Proposal - Standard Forms of this RFP.

- Availability of Professional staff/experts** 6.4 Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the Client expects to negotiate an Contract on the basis of the Professional staff named in the Proposal. Before contract negotiations, the Client will require assurances that the Professional staff will be actually available. The Client will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity. If this is not the case and if it is established that Professional staff were offered in the proposal without confirming their availability, the Consultant may be disqualified. Any proposed substitute shall have equivalent or better qualifications and experience than the original candidate and be submitted by the Consultant within the period of time specified in the letter of invitation to negotiate.
- Conclusion of the negotiations** 6.5 Negotiations will conclude with a review of the draft Contract. To complete negotiations The Client and the Consultant will initial the agreed Contract. If negotiations fail, the Client will invite the Consultant whose Proposal received the second highest score to negotiate an Contract.
- 7. Award of Agreement** 7.1 After completing negotiations The Client shall award the Contract to the selected Consultant and promptly notify all Consultants who have submitted proposals. After Contract signature, the Client shall return the unopened Financial Proposals to the unsuccessful Consultants.
- 7.2 The Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.
- 8. Confidentiality** 8.1 Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Consultant of confidential information related to the process may result in the rejection of its Proposal and may be subject to the provisions of the Consultant Selection Guidelines relating to fraud and corruption.

Instructions to Consultants

DATA SHEET

Paragraph Reference	
1.1	Name of the Client: Government of Punjab, Agriculture Department Method of selection: Least Cost Method (LCM)
1.2	Financial Proposal to be submitted together with Technical Proposal: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Name of the assignment is: Consultancy Services for Construction of 20,000 Biogas Plants and its Connection with Diesel Tubewells for Irrigation Purposes in the Punjab Province and its Quality Assurance
1.3	A pre-proposal conference will be held on <u>11th February 2014</u> The Client's representative is: Dr Muhammad Ghaffar Doggar Project Director/ Deputy Director Telep: +92-42-9200722 Cell Phone: +92-342- 2816650 & +92-300-8180941 Email: <u>drmgdns786@gmail.com</u> <u>fieldwing@gmail.com</u>
1.4	The Client will provide at no cost to the Consultants: Office space
1.6.1 (a)	The Client envisages the need for continuity for downstream work: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1.12	Proposals must remain valid <u>90</u> days w.e.f. the last date of submission of proposal
2.1	Clarifications may be requested not later than <u>1500 hours (Pakistan Standard Time, GMT+5) on 13th February, 2014.</u> Clarifications may be sought by sending an electronic request at the following e-mail address: <u>drmgdns786@gmail.com</u> and <u>fieldwing@gmail.com</u>
3.1	Proposals shall be submitted in the following language: <u>English</u> Information in any other language shall be accompanied by certified translation in English.
3.4 (a)	Firms should submit details of 05 number of assignments of similar complexity and scale completed by them. (give detail of projects / assignments completed alongwith address of location and beneficiaries detail)
3.4 (b)	CVs should contain details on 5 relevant assignments done by the individual in the past.

3.4 (c)	Training is a specific component of this assignment: Yes ___ No ___																														
3.6	<p><u>Applicable Reimbursable expenses in local currency</u></p> <p>(i) cost of applicable international or local communications such as use of telephone, facsimile required for purpose of the services</p> <p>(ii) cost of necessary travel including transportation of the personnel by the most appropriate means of transport and the most direct practicable route</p> <p>(iii) cost of printing and dispatching of reports to be produced for the services</p>																														
3.7	<p>Amounts payable by the Client to the Consultant under the Contract to be subject to local taxation: Yes <input checked="" type="checkbox"/> No ___</p> <p>The Client will withhold taxes on behalf of the Consultant: [Yes]</p>																														
3.8	Consultant to state Financial proposal in the national currency i.e. Pak Rupee: Yes <input checked="" type="checkbox"/> No ___																														
4.3	Consultant must submit the original and six copies of the Technical Proposal, and the original of the Financial Proposal (one copy).																														
4.5	<p>The Proposal must be submitted to:</p> <p>Dr. Muhammad Bashir, Director General Agriculture (Field) Punjab, 21-Davis Road, Lahore</p> <p>Proposals must be submitted no later than 1500 hours (PST, GMT+5) with in 32 days of appearance of the advertisement in the national press i.e. 25th February, 2014 (4:00 P.M. local time).</p>																														
5.2 (a)	<p>Criteria, sub-criteria, and point system for the evaluation of Technical Proposals are:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right; vertical-align: bottom;"><u>Points</u></th> </tr> </thead> <tbody> <tr> <td>(i) Company Profile:</td> <td style="text-align: right; vertical-align: bottom;">[20]</td> </tr> <tr> <td> a) Number of similar assignments</td> <td></td> </tr> <tr> <td> 1. Completed projects of similar nature</td> <td style="text-align: right; vertical-align: bottom;">[08]</td> </tr> <tr> <td> b) Value (Cost) of similar assignments</td> <td></td> </tr> <tr> <td> 1. Completed projects of similar nature</td> <td style="text-align: right; vertical-align: bottom;">[08]</td> </tr> <tr> <td> c) Organizational structure</td> <td style="text-align: right; vertical-align: bottom;">[04]</td> </tr> <tr> <td> 1. International Certification</td> <td style="text-align: right; vertical-align: bottom;">[02]</td> </tr> <tr> <td> 2. Organ gram</td> <td style="text-align: right; vertical-align: bottom;">[02]</td> </tr> <tr> <td>(ii) Project Team:</td> <td style="text-align: right; vertical-align: bottom;">[60]</td> </tr> <tr> <td> a) Team Leader / Project Manager</td> <td style="text-align: right; vertical-align: bottom;">[20]</td> </tr> <tr> <td> b) Deputy Team Leader / Senior Engineer</td> <td style="text-align: right; vertical-align: bottom;">[10]</td> </tr> <tr> <td> c) Biogas Technology Expert/Design Engineer</td> <td style="text-align: right; vertical-align: bottom;">[10]</td> </tr> <tr> <td> d) Training Specialist</td> <td style="text-align: right; vertical-align: bottom;">[10]</td> </tr> <tr> <td> e) Field Engineers</td> <td style="text-align: right; vertical-align: bottom;">[10]</td> </tr> </tbody> </table>		<u>Points</u>	(i) Company Profile:	[20]	a) Number of similar assignments		1. Completed projects of similar nature	[08]	b) Value (Cost) of similar assignments		1. Completed projects of similar nature	[08]	c) Organizational structure	[04]	1. International Certification	[02]	2. Organ gram	[02]	(ii) Project Team:	[60]	a) Team Leader / Project Manager	[20]	b) Deputy Team Leader / Senior Engineer	[10]	c) Biogas Technology Expert/Design Engineer	[10]	d) Training Specialist	[10]	e) Field Engineers	[10]
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	<p>The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant score:</p> <p>1) Education and qualifications [25%] 2) Relevant background/ Experience [70%] 3) Time with firm [05%]</p> <p>(iii) Approach & Methodology: [20] a) Understanding & Innovativeness [10] b) Methodology & Work plan [10]</p> <p>The minimum qualifying technical score points will be: 65 points</p>
6	Expected date and address for contract negotiations: 1st week of March 2014
7	Expected date for commencement of consulting services <u>15th March 2014</u> at <u>Lahore</u>

Section 3: Technical Proposal - Standard Forms

Refer to Reference Paragraph 3.4 of the Data Sheet for format of Technical Proposal to be submitted, and paragraph 3.4 of Section 2 of the RFP for Standard Forms required and number of pages recommended.

- TECH-1 Technical Proposal Submission Form
- TECH-2 Consultant's Organization and Experience
 - A Consultant's Organization
 - B Consultant's Experience
- TECH-3 Comments or Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be provided by the Client
 - A On the Terms of Reference
 - B On the Counterpart Staff and Facilities
- TECH-4 Description of the Approach, Methodology and Work Plan for Performing the Assignment
- TECH-5 Team Composition and Task Assignments
- TECH-6 Curriculum Vitae (CV) for Proposed Professional Staff
- TECH-7 Staffing Schedule
- TECH-8 Work Schedule

FORM TECH-1 TECHNICAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of Client]

Dear Sir,

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope¹.

We are submitting our Proposal in association with: [Insert a list with full name and address of each associated Consultant]²

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, i.e., before the date indicated in Paragraph Reference 1.12 of the Data Sheet, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in Paragraph Reference 7.2 of the Data Sheet.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

1 [In case Paragraph Reference 1.2 of the Data Sheet requires to submit a Technical Proposal only, replace this sentence with: "We are hereby submitting our Proposal, which includes this Technical Proposal only."]

2 [Delete in case no association is foreseen.]

FORM TECH-2 CONSULTANT'S ORGANIZATION AND EXPERIENCE

A - Consultant's Organization

[Provide here a brief (two pages) description of the background and organization of your firm/entity (including organogram) and each associate for this assignment.]

Firm Background:

Chief Executive Officer:

Chief Financial Officer:

Chief Technical Officer (or equivalent):

B - Consultant's Experience

*[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this Assignment. **Please provide Client's certification and/or evidence of the contract agreement.**]*

Assignment name:	Value of the contract (in current PKR or US\$):
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total N ^o of staff-months (by your firm) on the assignment:
Start date (month/year): Completion date (month/year):	Value of consultancy services provided by your firm under the contract (in current PKR or US\$):
Name of associated Consultants, if any:	N ^o of professional staff-months provided by associated Consultants:
Name of senior professional staff 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 by your staff within the assignment:	

**FORM TECH-3 COMMENTS AND SUGGESTIONS ON THE TERMS OF
REFERENCE AND ON COUNTERPART STAFF AND FACILITIES TO BE PROVIDED
BY THE CLIENT**

A - On the Terms of Reference

[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.]

B - On Counterpart Staff and Facilities

[Comment here on counterpart staff and facilities to be provided by the Client according to Paragraph Reference 1.4 of the Data Sheet including: administrative support, office space, local transportation, equipment, data, etc.]

FORM TECH-4 DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (50 pages maximum, inclusive of charts and diagrams) divided into the following three chapters:

- a) Technical Approach and Methodology,
- b) Work Plan, and
- c) Organization and Staffing,

a) Technical Approach and Methodology. In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan. In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-8.

c) Organization and Staffing. In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.]

FORM TECH-5 TEAM COMPOSITION AND TASK ASSIGNMENTS

Professional Staff					
Name of Staff	CNIC No./Passport No.	Firm	Area of Expertise	Position Assigned	Task Assigned

FORM TECH-6 CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

1. Proposed Position [*only one candidate shall be nominated for each position*]: _____

2. Name of Firm [*Insert name of firm proposing the staff*]: _____

3. Name of Staff [*Insert full name*]: _____

4. Date of Birth: _____ **Nationality:** _____

5. CNIC No (if Pakistani): _____ **or Passport No:** _____

6. Education :

<i>Degree</i>	<i>Major/Minor</i>	<i>Institution</i>	<i>Date (MM/YYYY)</i>

7. Membership of Professional Associations: _____

8. Other Training [*Indicate significant training since degrees under 6 - Education were obtained*]: _____

9. Languages [*For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing*]: _____

10. Employment Record [*Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.*]:

<i>Employer</i>	<i>Position</i>	<i>From (MM/YYYY)</i>	<i>To (MM/YYYY)</i>

11. Detailed Tasks Assigned

[List all tasks to be performed under the assignment]

12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

[Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 11.]

- 1) Name of assignment or project: _____
Year: _____
Location: _____
Client: _____
Main project features: _____
Positions held: _____
Activities performed: _____

- 2) Name of assignment or project: _____
Year: _____
Location: _____
Client: _____
Main project features: _____
Positions held: _____

Activities performed: _____
3) Name of assignment or project: _____
Year: _____
Location: _____
Client: _____
Main project features: _____
Positions held: _____
Activities performed: _____
<i>[Unroll the project details group and continue numbering (4, 5, ...) as many times as is required]</i>

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes my qualifications, my experience, and myself. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date: _____

[Signature of staff member or authorized representative of the staff] *Day/Month/Year*

Full name of authorized representative: _____

FORM TECH-7 STAFFING SCHEDULE¹



Full time input
Part time input

Year: _____		Staff input (in the form of a bar chart) ²												Total staff-month input		
N°	Name of Staff	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Home	Field ³	Total
Foreign																
1		[Home]														
		[Field]														
2																
3																
n																
Subtotal																
Local																
1		[Home]														
		[Field]														
2																
n																
Subtotal																
Total																

- 1 For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).
- 2 Months are counted from the start of the assignment. For each staff indicate separately staff input for home and fieldwork.
- 3 Fieldwork means work carried out at a place other than the Consultant's home office.

Section 4: Financial Proposal - Standard Forms

[Comments in brackets [] provide guidance to the shortlisted Consultants for the preparation of their Financial Proposals; they should not appear on the Financial Proposals to be submitted.]

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided under para. 3.6 of Section 2. Such Forms are to be used whichever is the selection method indicated in para. 4 of the Letter of Invitation.

[The Appendix “Financial Negotiations - Breakdown of Remuneration Rates” is to be only used for financial negotiations when Quality-Based Selection, Selection Based on Qualifications, or Single-Source Selection method is adopted, according to the indications provided under para. 6.3 of Section 2.]

FIN-1 Financial Proposal Submission Form

FIN-2 Summary of Costs

FIN-3 Breakdown of Costs by Activity

FIN-4 Breakdown of Remuneration

FIN-5 Reimbursable expenses

Appendix: Financial Negotiations - Breakdown of Remuneration Rates

FORM FIN-1 FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of Client]

Dear Sir,

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures¹]. This amount is inclusive of the taxes.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Paragraph Reference 1.12 of the Data Sheet.

No commissions or gratuities have been or are to be paid by us to agents relating to this Proposal and Contract execution.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

FORM FIN-2 SUMMARY OF COSTS

Item	Costs
	Pak Rupees
Total Costs of Financial Proposal ²	

- 1 Indicate the total costs, net of local taxes, to be paid by the Client in local currency. Such total costs must coincide with the sum of the relevant Subtotals indicated in all Forms FIN-3 provided with the Proposal.

FORM FIN-3 BREAKDOWN OF COSTS BY ACTIVITY¹

Group of Activities (Phase): ² _____ _____	Description: ³ _____ _____
<i>Cost component</i>	Costs
	Pak Rupees
Remuneration ⁵	
Reimbursable Expenses ⁵	
Subtotals	

- 1 Form FIN-3 shall be filled at least for the whole assignment. In case some of the activities require different modes of billing and payment (e.g.: the assignment is phased, and each phase has a different payment schedule), the Consultant shall fill a separate Form FIN-3 for each group of activities. The sum of the relevant Subtotals of all Forms FIN-3 provided must coincide with the Total Costs of Financial Proposal indicated in Form FIN-2.
- 2 Names of activities (phase) should be the same as, or correspond to the ones indicated in the second column of Form TECH-8.
- 3 Short description of the activities whose cost breakdown is provided in this Form.
- 4 Indicate between brackets the name of the local currency.
- 5 Remuneration and Reimbursable Expenses must respectively coincide with relevant Total Costs indicated in Forms FIN-4, and FIN-5.

FORM FIN-5 BREAKDOWN OF REIMBURSABLE EXPENSES

N°	Description ¹	Unit	Unit Cost ²
	Per diem allowances	Day	
	International flights ³	Trip	
	Miscellaneous travel expenses	Trip	
	Communication costs between [<i>Insert place</i>] and [<i>Insert place</i>]		
	Drafting, reproduction of reports		
	Equipment, instruments, materials, supplies, etc.		
	Shipment of personal effects	Trip	
	Use of computers, software		
	Laboratory tests.		
	Subagreements		
	Local transportation costs		
	Office rent, clerical assistance		
	Training of the Client's personnel ⁴		

- 1 Delete items that are not applicable or add other items according to Paragraph Reference 3.6 of the Data Sheet.
 - 2 Indicate unit cost and currency.
 - 3 Indicate route of each flight, and if the trip is one- or two-ways.
 - 4 Only if the training is a major component of the assignment, defined as such in the TOR.
-

Sample Form

Consulting Firm:

Assignment:

Date:

Consultant's Representations Regarding Costs and Charges

We hereby confirm that:

- (a) the basic salaries indicated in the attached table are taken from the firm's payroll records and reflect the current salaries of the staff members listed which have not been raised other than within the normal annual salary increase policy as applied to all the firm's staff;
- (b) attached are true copies of the latest salary slips of the staff members listed;
- (c) the away from headquarters allowances indicated below are those that the Consultants have agreed to pay for this assignment to the staff members listed;
- (d) the factors listed in the attached table for social charges and overhead are based on the firm's average cost experiences for the latest three years as represented by the firm's financial statements; and
- (e) said factors for overhead and social charges do not include any bonuses or other means of profit-sharing.

[Name of Consulting Firm]

Signature of Authorized Representative

Date

Name: _____

Title: _____

Consultant's Representations Regarding Costs and Charges

(Expressed in *[insert name of currency]*)

Personnel		1	2	3	4	5	6	7	8
Name	Position	Basic Salary per Working Month/Day/Year	Social Charges ¹	Overhead ¹	Subtotal	Fee ²	Away from Headquarters Allowance	Proposed Fixed Rate per Working Month/Day/Hour	Proposed Fixed Rate per Working Month/Day/Hour ¹
Home Office									
Field									

1. Expressed as percentage of 1
2. Expressed as percentage of 4

SECTION 5: TERMS OF REFERENCE

Project: **Consultancy Services for Installation of Biogas Supplemented Agriculture Tubewells for Irrigation in Punjab**

Employer: **Agriculture Department (Field Wing), Government of the Punjab.**

Location: All districts of Punjab province of Pakistan

Agriculture Department wants to secure the services of a international consulting firm / or as joint venture with local firms, to assist the Department for installation of biogas tube wells, its supervision, quality assurance & operation on sustainable basis. 20,000 bio gas plants, floating gas holder and fixed dome type, with digester sizes: 25 m³, 40 m³ and 50 m³, shall be constructed and connected with diesel tube wells by prequalified firms / service providers on turn key basis. The selection of potential firms shall be made by Prequalification Committee based on the recommendations of the consultant.

Allotment of biogas plants shall be made by the district allotment committees through balloting, after scrutiny of applications /documents submitted by applicants and verification of eligibility criteria of applicants (farmers). The farmers would have the choice to select a suitable size of plant and get its construction from one of the short listed firms after allotment of plants.

The consultant firm shall supervise the quality of construction and assist in short listing of firms as well as verify the bills submitted by firms for making payments. The consultant shall also prepare documents required for claiming carbon credit under clean development mechanism and complete relevant formulates on behalf of the Department.

TERMS OF REFERENCE (TORs) FOR PROJECT IMPLEMENTATION SUPPORT AND SUPERVISION CONSULTANT

INTRODUCTION

1.1 Presently Pakistan is facing acute shortage of energy, where current power supplies are far below than demands. The Punjab government has, accordingly, prioritized energy sector and planned to explore various alternate energy sources to cope with the current energy crisis. At present, there is insignificant contribution of renewable energy technologies in the power generation capacity of the country despite abundant availability of indigenous sustainable resources such as wind, solar, and biogas. In view of prevailing energy crisis, the Chief Minister, Punjab constituted a Cabinet Committee on Energy (CCE) under the chairmanship of Minister for Energy for preparing viable plans to mitigate the energy crisis as well as making recommendations in this regard. In addition to other identified projects, the CCE recommended utilization of biogas energy for diesel tube-wells focusing small and medium farmers.

- 1.2 On recommendation of the CCE, Chief Minister Punjab approved the plan for installation of 100,000 biogas tubewells in five years in the meeting of Energy Council held on 10th October 2013, including 10,000 during first year. The biogas plants would be installed and connected with tubewells by the pre-qualified Supply and Services Companies (SSCs) / firms / contractors on turnkey basis. The main objective is to reduce the energy cost of diesel tubewells, which are mainly owned and operated by small farmers. It has been planned to install 100,000 biogas tubewells in five years. Initially 20,000 biogas tubewells shall be installed and depending upon its performance remaining biogas tubewells shall be converted on to biogas subsequently.
- 1.3 Currently, there are about 950,000 tubewells in the Punjab including around 835,000 diesel (88 percent) and nearly 110,000 electricity (12 percent) operated, consuming enormous fuel and energy. The annual operational cost of diesel operated tubewells is about Rs. 250 to 300 billion which is heavy burden on the farmers. Poor productivity of water and energy resources in the irrigated agriculture also contributes to excessive production costs. It is estimated that replacement of existing non-renewable energy source of fossil fuels i.e. high speed diesel (HSD) for irrigation tubewells with biogas may save approximately 75-80 percent of HSD consumption.
- 1.4 According to Livestock Census (2006), the total population of cattle and buffaloes etc. in the Punjab is about 32 million producing huge amount of animal dung, which can be utilized to generate biogas. It is estimated that each cattle provides 10-15 kg dung per day sufficient for producing 0.50-0.75 m³ of gas. Approximately 3 billion cubic meter of biogas per annum can be produced from the available animal waste assuming collection efficiency of 50 percent. This is sufficient to operate nearly 380,000 tubewells (16 HP each) for more than 1,600 hours per annum.
- 1.5 Agriculture Department has already installed 1,476 family size floating gas holder type biogas plants of 15 m³ capacity to supply gas for domestic cooking needs under a project “Adaptation of Biogas Technology to Mitigate the Energy Crises” during 2010-13. These plants are successfully supplying biogas to families of 5-10 members in all districts of Punjab. Similarly, 50 biogas supplemented tubewells have been installed in eleven districts of Punjab under a pilot project “Provision of Biogas Supplemented Tube Wells for Irrigation Purposes in Punjab” during 2013. The demonstration/success of biogas operated tubewells has attracted the attention of other farmers towards the technology, but they do not have financial resources to adopt the technology.
- 1.6 Accordingly, the government has planned to construct/install two models of biogas plants i.e. floating gas holder type and fixed dome type with digester size between 25 to 50 m³ capable of running 12 to 25 HP capacity tubewells. The farmers would have the choice to apply for any size and design of biogas plant with following subsidy slabs.

Slab #	Land Holding (Acres)	Subsidy (Rs.)
1	upto 5	100,000
2	>5 to 12.5	75,000
3	> 12.5 to 25	50,000

- 1.7 The project is aimed to achieve the following objectives.
- i. Promote sustainable use of biogas energy for operation of tubewells for irrigating crops
 - ii. Minimize the energy cost of diesel operated tubewells up to 80 percent
 - iii. Enhance agricultural productivity through timely availability of irrigation water and use of biogas nutrient rich manure for crop production
- 1.8 The main components envisaged under proposed project include, inter alia, the followings:
- a) Mobilization of farmers' for installation of biogas plants for pumping/lifting water for irrigation.
 - b) Installation of 20,000 biogas supplemented tubewells initially comprising of 24 months for pumping irrigation water.
 - c) Capacity building of the project stakeholders in operation, maintenance, and management of biogas operated tubewells.
- 1.9 The proposed project will help to reduce the energy cost of tubewells, improve profitability of small and medium farmers and alleviate poverty in the rural areas. The project would also create huge impact on crop and land productivity by conversion of animal dung into high value organic fertilizer called "biogas slurry" by increasing the fertility of soils. The project would also help to earn revenue from carbon credits for methane generation through installation of biogas tubewells.
- 1.10 **Carbon Credits Revenue:** Pakistan has signed UN Framework Convention on Climate Change at the Earth Summit (UNFCCC) held in Rio de Janeiro in 1992. The convention contains a non-legal binding by the industrialized countries for stabilizing their emissions at 1990 levels by 2000 in order to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. The Kyoto Protocol to UNFCCC was signed which ensures that developed countries would reduce their greenhouse emissions by 5% (1990 level) up to 2012.
- 1.11 Government of Pakistan has designated Ministry of Environment (i.e. Climate Change) to claim the Carbon Credits Revenue from environmentally friendly projects. In this regard CDM Steering Committee has been constituted under the chair of Secretary, Ministry of Environment. The functions of the Steering Committee are
- To provide necessary policy advice and guidance to the CDM Technical Committees and CDM Secretariat.
- To review implementation progress of CDM projects; and
- To ensure inter-ministerial coordination for effective management of CDM process in Pakistan
- 1.12. A CDM Secretariat headed by Joint Secretary (International Cooperation), Ministry of Environment has also been established to process and grant approval of CDM projects on behalf of Government of Pakistan. The CDM Secretariat can also formulate policies and strategies for the purpose. The Department would complete required

formalities and claim carbon credits earned through reduced carbon emissions under CDM provisions.

- 1.13 **Project Location/Area:** The project activities would be implemented in the entire Punjab.

OBJECTIVES AND SCOPE OF WORK

Consultants Services: Consultancy services for project implementation support and supervision are required, interalia, to ensure that i) the activities envisaged thereunder are executed in an orderly manner; ii) workmanship is of high standards; iii) specified quality of materials are used which are in conformity with the approved standards and specifications and environmental safeguards are followed; and iv) project is completed within the stipulated time period.

It is considered that the quality of biogas constructed plants will be the key factor determining the success of the project. The responsibilities of Project Implementation Support and Supervision Consultants (PISSC) will include provision of implementation support, technical assistance, and supervision of field activities but not limited to the followings:

- i. Prepare technical documents/agreement for contractor firms including contract conditions, bidding documents, specifications for design, materials, & installation of equipment, itemized list of typical items, performance guarantee/post installation warrantee forms etc.
- ii. Prepare designs of proposed biogas plants for the project.
- iii. Evaluate technical and financial proposals of contractor firms.
- iv. Facilitate in finalization of rates for various items and equipment.
- v. Inspect and advise on standards, specifications, and criteria for the biogas plant's materials/equipment.
- vi. Review and assist in approving designs and cost estimates of the biogas operated tube wells.
- vii. Perform duties of "the Engineer" as per Client's agreement with the beneficiary farmers/service providers to supervise construction / installation with the best professional and consulting standards to ensure that the scheme / task is completed satisfactorily.
- viii. Facilitate timely completion of works and recommend onsite modifications in biogas plants/system installation, if necessary.
- ix. Supervise and monitor the works for quality of works during installation of biogas plant.
- x. Verify completion reports and financial resource transfer applications of executed works/schemes.
- xi. Notify the Director General Agriculture (Field) / Project Director of compliance/non-compliance of works with agreed criteria, design, and standards.

- xii. Prepare monthly, quarterly, and annual reports for proposed project activities besides other periodic reports as per requirements of project management.
- xiii. Provide technical support for training and capacity building of project stakeholders regarding project interventions.
- xiv. Assist in procurement, financial management, and preparation of TORs for additional studies etc.
- xv. Contribute in preparation of operation, maintenance, and management manuals for biogas operated tubewells.
- xvi. Advise the Client, in case of contractual dispute which may result in legal action. The Consultant will prepare factual documentation, propose solutions and provide all legal and other support if required.

2.2 Project Management Support: The Consultants will provide support to Director General Agriculture (Field)/Project Director in overall project management activities such as preparation of implementation plans, expenditure planning, budgeting and financing forecast & plans as well as monthly, quarterly, and annual progress reports or work programs, as and when required by the Client. Moreover, they will also help in contract management and financial management.

IMPLEMENTATION ARRANGEMENTS

3.1 The Consultant shall work closely with the Director General Agriculture (Field)/Project Director to whom they will be reporting on a day to day basis. The Consultants will establish their offices in the field at suitable locations covering all the districts and at Lahore. Most of the consultants' staff will be located in the districts.

3.2 Director General Agriculture (Field)/Project Director will be representative of the Client who will also resolve various administrative issues relating to consultants arising during the course of assignment. The Consultants' Team Leader will be the principal contact and will be readily available during project implementation.

3.3 The Consultants shall be responsible for all aspects of performance of services as set forth in the preceding sections of these TORs. All records and sites will be made available to the Consultants to enable them to perform their functions.

3.4 Selection Procedure and Form of Contract: The selection of PISSCs will largely depend on their technical expertise and experience in providing consultancy services under similar projects. The Consultant Selection Committee (CSC) would recruit the consultants on Least Cost Method (LCM) as per PPRA rules 2014 and form of contract will be Time Based Contract.

3.5 Duration of the Assignment: The estimated duration of the consultancy services is 24 months.

3.6 Reporting: The Consultants will prepare the following reports in English and provide copies as per sub-para 3.6.1 regarding deliverables and schedule along with

respective soft copy:

An inception report

Monthly progress reports

A mid-term report on the format acceptable to the Client

Quality Assurance Plan - (QA/QC Manual)

Revised Planning Commission Proforma-I (PC-I)

Completion Report

Training Manuals and Modules

Any special reports as may be necessary from time to time for specific item / issue within the scope of the assignment.

3.6.1 Deliverables and Schedule: The schedule for various reports the consultants are likely to prepare is given below. Additional, reports have to be prepared as needed. The Consultant will supply the deliverables as per schedule given below:

Sr. No.	Document	Copies	Due
1	Draft Inception Report	5	30 days after the effectiveness of the Consulting Services Agreement
2	Final Inception Report	15	One week after the issuance of comments by the Client on Draft Inception Report
3	Documents for Carbon Credits Revenues Claim under CDM	15	To be submitted to Federal Government and CDM Secretariat immediately after approval of PC-I
4	Monthly Progress Report	10	10 th of the following month
5	Quality Assurance Plan (QA/QC Manual)	10	Before starting the physical activities
6	Quarterly Progress Report (Physical & Financial)	10	10 th of the first month of following quarter
7	Annual Summary Progress Report (Physical & Financial)	10	10 th of the first month of following year
8	Annual Progress Report (Physical & Financial)	10	During first month of the following year
9	Quality Control / Assurance Report	10	After each year
10	Revised Planning Commission Proforma-I (PC-I)	50	As and when required
11	Draft Assignment Completion Report	5	At completion of physical works
12	Final Assignment Completion Report	25	At completion of works as well as financial transactions
13	Planning Commission Proforma-IV (PC-IV)	50	At completion of project activities

Sr. No.	Document	Copies	Due
14	Complete Inventory of Works/Activities Completed	10	At completion of the project
15	Training Reports	10	As and when required
16	Special Reports	10	As and when required

3.7 Staffing Requirements: It is recognized that local expertise in the field of operating tubewells on biogas is lacking. The Consultants are, therefore, encouraged to make joint ventures with foreign firm having requisite experience and/or include expatriate experts in their team to the extent possible. Furthermore, they are required to propose a staffing plan and skill mix to assist the Client to ensure that envisaged project objectives are achieved. The Consultants shall ensure deployment of qualified competent staff for the purpose. The team of experts required for the PISSC along with their estimated input of man months are given below.

Sr. No.	Category	Number	Man-Months
1	Team Leader/Project Manager	1	18
2	Senior Engineer/ Deputy Team	1	18
3	Field Engineers	12	216
4	Biogas Technology Expert	1	18
5	Training Specialist	1	18
6	Unallocated/Support Staff	-	60
	Total	-	348

3.8 Indicative Duties/Job Description of core team of experts of PISSC for the project along with academic qualification and experience required for carrying out the assignment is given below;

Sr. No.	Position	Qualification	General/ Overall Experience (Years)	Job Specific Experience (Years)
1	Team Leader/Project Manager	Master's degree or its equivalent in Agricultural Engineering /Mechanical Engineering/ Renewable Energy / Biogas Technology	15	10 (Renewable Energy Sector Projects)
2	Senior Engineer/ Deputy Team Leader	Master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering / Renewable Energy/ Biogas Technology	10	7 (Renewable/ Biogas Energy Sector Projects)

Sr. No.	Position	Qualification	General/ Overall Experience (Years)	Job Specific Experience (Years)
3	Biogas Technology Expert/Design Engineer	Master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering/ / Renewable Energy/Biogas Technology	7	5 (Biogas Technology for Irrigation)
4	Training Specialist	Master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering/ / Renewable Energy / Biogas Technology	7	5 (Biogas Technology)
5	Field Engineer	B.Sc. in Agricultural Engineering / Renewable Energy	3	1 (Biogas Supplemented Tubewells)

Team Leader/Project Manager

Qualifications: The Team Leader (TL)/Project Manager will possess a Master's degree or its equivalent in in Agricultural Engineering /Mechanical Engineering/ Renewable Energy / Biogas Technology with 15 years' experience including implementation of energy sector projects preferably in biogas technology/energy. A minimum of 10 years of experience will be required in the management of similar consultancy services i.e. renewable energy sector projects with demonstrated ability to work with government officials, technical field staff, and farmers. In addition, the TL would be required to have familiarity with the principles and practices of biogas technology powered tubewells, irrigated agriculture, environmental and groundwater management related issues, knowledge of project management information systems besides having fluency in spoken and written English.\

Responsibilities of the TL will be, but not limited, to the followings.

- i. Report to the Client.
- ii. Assume overall responsibility for management of the consultants.
- iii. Work as the "the Engineer" as per Client's agreement with the beneficiary farmers/service providers to supervise construction/installation with the best professional and consulting standards to ensure that the scheme/works are completed satisfactorily.
- iv. Keep the Client informed of technical issues and progress of all the works both by direct contacts and through discussions or correspondence.
- v. Attend, at project level, all meetings as required and keep a record of all such meetings.
- vi. Assist the Client in any project issue, which the employer may require.
- vii. Ensure preparation of a project completion report (PCR).
- viii. Assist the Client in preparing the response to Audit Objections, if required.

- ix. Assist the Client in preparing response to financiers or other authority's queries, observations, requirements etc.
- x. Coordinate with all related Client's organizations for project issues.

Senior Engineer/Deputy Team Leader

Qualifications: The Senior Engineer/Deputy Team Leader (DTL) will possess a master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering / Renewable Energy/ Biogas Technology with 10 years' experience in implementation of renewable energy sector projects, preferably rural development projects. A minimum of 7 years of experience will be required in the management of irrigation water management/biogas energy sector projects with demonstrated ability to work with government officials, technical field staff, and farmers. Work experience in related computer tools, good communication skills, fluency in English and proven satisfactory record of similar consultancies would be preferred.

Responsibilities of the Senior Engineer/DTL will be, but not limited to, the followings.

- i. Act as deputy to Team Leader and carries out the duties of TL except those of "the Engineer" in his/her absence.
- ii. Assist the TL in coordination issues.
- iii. Represent the TL in all meetings in his/her absence, if requested.
- iv. Assist the TL in keeping the Client informed of technical issues both by direct contacts and through discussions or correspondence.
- v. Facilitate the TL in preparation of monthly, quarterly and mid-term reports.
- vi. Provide assistance to the TL in any project issue, which the TL/Project Manager may require.
- vii. Support the TL in preparation of the project completion report (PCR) and any other duty/assignment the TL may entrust.
- viii. Compile, analyze, and process the reports received from subordinate offices.
- ix. Carry out field visits to provide necessary input to management about project implementation.
- x. Supervise checking/verifications, designs, and other field activities to be performed by the Consultants.
- xi. Arrange verification of physical works and make recommendations for improvements in management modalities for smooth execution of filed activities, where required.

Biogas Technology Expert/Design Engineer

Qualifications: The Biogas Technology Expert/Design Engineer will possess a master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering / Renewable Energy/Biogas Technology with seven (7) years' experience including implementation of biogas technology sector related projects preferably in biogas operated tubewells. A minimum of five (5) years of experience will be required

regarding biogas technology for irrigation with demonstrated ability to work with government officials, technical field staff, and farmers. Work experience in related computer tools, good communication skills, and fluency in English would be preferred.

Responsibilities of Biogas Technology Expert will be, but not limited, to the following.

- i. Provide technical support to the Director General Agriculture (Field) Punjab/Project Director for smooth implementation of project activities.
- ii. Extend technical assistance to the project management.
- iii. Prepare the most viable design of biogas plant suitable for native climatic conditions.
- iv. Carry out field visits to provide necessary technical assistance/input to project stakeholders for biogas plant operation, maintenance, and management.
- v. Assist in planning project activities to resolve technical issues in adoption of a sustainable solution of biogas supplemented tubewells.
- vi. Identify the environmental issues and their impacts and develop remedial measures for information of the Department.
- vii. Any other relevant duty assigned by the project management.

Training Specialist

Qualifications: The Training Specialist (TS) will possess a master's degree or its equivalent in Agricultural Engineering / Mechanical Engineering/ / Renewable Energy / Biogas Technology with seven (7) years' experience in implementation of teaching/training programs in renewable energy sector projects. A minimum of five (5) years of experience will be required in biogas technology sector projects with demonstrated ability to work with government officials, technical field staff, and farmers. The work experience in a developed country in related field with demonstrated ability to work with government officials, technical field staff, and farmers would be preferred. In addition, the TS should possess work experience in related computer tools, good communication skills, fluency in English and proven satisfactory record of similar consultancies.

Responsibilities of the Training Specialist will be, but not limited to, the followings.

- i. Assist in developing a holistic and comprehensive training and capacity building strategy/program for project stakeholders.
- ii. Develop training guidelines, technical manuals, training modules, flyers/brochures, course design and contents etc.
- iii. Impart training to farmers covering different aspects of biogas supplemented tubewells.
- iv. Assist in maintaining training database in an effective and systematic manner and produce informative management reports.

- v. Provide assistance to organize training programs.
- vi. Propose effective and smooth training administration and logistics support mechanism.
- vii. Monitor training sessions and provide necessary input to management for improving the training effectiveness.
- viii. Any other relevant duties assigned by the project management.

Field Engineer

Qualifications: The Field Engineer will possess B.Sc. degree in Agricultural Engineering / Renewable Energy with three (3) years' experience in renewable energy projects. A minimum of one (1) year experience will be required in biogas supplemented tubewells projects with demonstrated ability to work with government officials, technical field staff, and farmers. Work experience in related computer tools, good communication skills, and fluency in English would be preferred.

Responsibilities of the Field Engineers will be, but not limited to, the followings.

- i. Assist the project management in smooth implementation of project activities including shortlisting/scrutiny of eligible applicants/farmers.
- ii. Provide assistance in preparation of most viable designs of biogas operated tubewells suitable for local climatic conditions.
- iii. Coordinate and supervise the construction/installation/equipment delivery activities.
- iv. Ensure quality as well as quantity of works by regular monitoring/spot-checking.
- v. Certify release of funds for ongoing as well as completed works.
- vi. Bring any deficiency into the notice of the controlling officers of district, division, region, and provincial project management.
- vii. Develop close liaison with project stakeholders including project management, SSCs/Firms, and beneficiary farmers.
- viii. Verify/accompany the Inspection Committee in the field for inspection/certification of the installation/construction work.
- ix. Any other relevant duties assigned by the project management.