

LETTER OF TECHNICAL BID AND SCHEDULES TO BID

Integrated Energy and Agriculture Concept



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Letter of Technical Bid

Schedules to Bid

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LETTER OF TECHNICAL BID

Bid Reference No.: XXXXXX

BIDDING DOCUMENT FOR EPC AND O&M CONTRACT FOR Integrated Energy and Agriculture Concept comprising the following Scope:

- a) EPC including Design, Supply, Construction, Turnkey Installation, Testing, Commissioning and;**
- b) Operation & Maintenance (O&M) Services**

To,
University of Agriculture,
Agriculture University Road,
Faisalabad 38000,
Pakistan Dear Sir/ Madam,

1. Having examined the Bidding Documents including Instructions to Bidders, Conditions of Contract, Employer's Requirements, Drawings, Schedules to Bid, Schedule of Prices and Addenda Nos. for the execution of the above-named Works, we, the undersigned, being a company doing business under the name of and address
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and being duly incorporated under the laws of hereby offer to execute and complete such Works and remedy any defects therein and carry out Operation & Maintenance Services in conformity with the said documents including Addenda thereto.
2. We understand that all the Schedules attached hereto form part of this Bid.
3. As security for due performance of the undertakings and obligations of this

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Bid, we submit herewith a Bid Security in the amount of drawn in the favor of, or made payable to the Employer, Energy Department and valid for a period 120 days beyond the period of validity of Bid.

4. We undertake, if our Bid is accepted, to commence the Works and to deliver and complete the whole of the EPC Works and Operation & Maintenance Services comprised in the Contract within the time(s) stated in the Conditions of Contract.
5. We agree to abide by this Bid for the period of 120 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We undertake, if our Bid is accepted to execute the Performance Security referred to in Clause 4.2 of Conditions of Contract for the due performance of the Contract.
8. We do hereby declare that our firm, including any subcontractors or suppliers for any part of the Contract, has nationalities from eligible countries *[insert the nationality of the Bidder, including that of all parties that comprise the Bidder if the Bidder is a consortium or association, and the nationality of each Subcontractor and Supplier]*.
9. We, including any subcontractors or suppliers for any part of the Contract, do not have any conflict of interest.
10. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process.
11. The undersigned agrees to fully cooperate with and permit the Employer or its representatives, including any auditors or legal firms hired by the Employer for the purpose, to access and scrutinize the accounts of the undersigned or

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any other records and documentation of the undersigned associated with or relevant to the enclosed Bid.

12. The undersigned warrants that it satisfies the eligibility criteria for Bidders stated in the Qualification Documents.
13. The undersigned will be responsible for responding to any requests for further information, including clarifications and additional documentary evidence in support of the Bid, in the time frame requested by the Employer. The undersigned accepts that such requests may be made by email or postal mail.
14. The undersigned affirms the authority to duly sign and execute the Bid, including the Technical Bid and Financial Bid, on behalf of the Employer.
15. We confirm that we shall make a Presentation of our Technical Proposal to the members of the Bid Evaluation Committee at the venue and date decided by the Employer in accordance with Sub-Clause IB.26.2 (c) (ii) of the Instructions to Bidders. We understand that failure to make such Presentation may render our Technical Proposal as non-responsive.
16. We confirm, if our Bid is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer. (Please delete in case of Bid from a single firm).

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Dated this day of 2017

Signature in the capacity of duly
authorized to sign

the Bid for and on behalf of

(Name of Bidder in Block Capitals)

(Seal of Bidder)

Bidder's Address

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.....
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Witness:

Signature:

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Name:

.....

Address:

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.....
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Occupation

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SCHEDULE – A TO BID

SPECIFIC WORKS DATA

The following documentations have to be provided in this schedule, in the same sequence as given here, using the same numeration. Approximate page numbers are given to the bidder for orientation; they don't need to be matched exactly, but information which is highly insufficient or highly excessive might be given less score.

The bidders must ensure that the proposed equipment meets all the requirements mentioned under these sections. All proposed components of the PV Biogas Hybrid System will be verified and will serve as basis for the technical evaluation. The bidders will not be allowed to change any component after the submission of the bid.

All references in the list refer to the respective chapters in the Employer's Requirements of these Bidding Documents.

1. Functional requirements:
 - a. Description of the system proposed by the bidder in words: general overview, functionality, special features etc. (3 pages)
 - b. SLD of overall system for both sites separately, with protection functions, including all required protection devices, ratings of components and overall functional design to demonstrate inter-compatibility of the individual components, in line with specifications from **Error! Reference source not found.**
 - c. Layout of Biogas System. This includes a preliminary flow-sheet diagram with all relevant civil and electro-mechanic components and equipment and a general layout of the constructions (tanks, pipelines, platforms, housings) for all main components of the biogas system.

The layout may be similar or different as the proposed design as per **Error! Reference source not found.**, but it must fulfill the functional requirements as per **Error! Reference source not found.**

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- d. General layout drawing of PV and Battery Systems of the PV Biogas Hybrid System including layout of the PV modules, inverter, batteries, container, etc. for both sites separately (minimum SLD and string plan including main breakers; rough physical layout). Must fulfill functional requirements as per **Error! Reference source not found..**
 2. O&M Scope:
 - a. Brief description of planned maintenance concept: staff, schedules, relationships with equipment suppliers. (2-3 pages). Must meet **Error! Reference source not found..**
 - b. Brief description of planned operation concept: staff, schedules, fault management, operation quality assurance and optimization. (2-3 pages). Must meet **Error! Reference source not found..**

Initials of Signatory to Bid:

SCHEDULE – B TO BID

PROPOSED ORGANIZATION FOR THE PROJECT

The Bidder shall provide in this Schedule Organization chart indicating the key personnel he will employ for Head office and for Site office involved in management, supervision and Project Manager/Engineering of the Works to be done under the Contract to direct and execute the Works, together with their names, qualifications, experience, positions held and their nationalities.

Experience/Designation	Name of Person	Summary of Qualifications	Present Position and Nationality

- Head Office:

Team Leader (Design)

- Site Office:

Contractor's Representative:

Site Superintendent:

Supervising engineers:

Plant Erectors:

Construction Supervisors:

Other key staff:

(The bidder may attach additional pages to explain the above)

Initials of Signatory to Bid:

SCHEDULE – C TO BID

METHOD OF PERFORMING THE WORKS

The Bidder is required to submit a narrative outlining the method of performing the Works. The narrative should indicate in detail and include but not be limited to:

- The sequence and methods in which he proposes to carry out the Works, including the number of shifts per day and hours per shift, he expects to work.
- A list of all major items of constructional and erection plant, tools and vehicles proposed to be used in carrying out the Works at Site.
- The procedure for installation/erection of equipment and transportation of equipment and materials to the site.
- Details regarding mobilization in Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.
- The Contractor shall provide description of his construction camp's facilities and staff housing requirements.
- The Contractor shall be responsible for pumps, electrical power, water and electrical distribution systems, and sewerage system including all fittings, pipes and other items necessary for servicing the Contractor's construction camp and staff housing facilities. The Bidder shall list or explain his plans for providing these facilities for the service of the Contract as follows:
 1. Site Preparation (clearing, land preparation, etc.)
 2. Provision of Services:
 - a) Power
 - b) Water
 - c) Sanitation
 3. Construction of Facilities
 - a) Contractor's Office, Workshop and Work Areas
 - b) Warehouses and Storage Areas
 - c) Housing and Staff Facilities
 4. Construction Equipment Assembly and Preparation
 5. Other Items Proposed (Security services, etc.).

Initials of Signatory to Bid:

SCHEDULE – D TO BID
PROPOSED PROGRAM OF WORKS

Bidder shall provide a program in a Primavera-P6 form along with detailed breakdown structure and allocation of resources all as required under the Contract showing the sequence of work items by which he proposes to complete the Work of the entire Contract. The program should indicate the sequences of work items and the period of time during which he proposes to complete the Works including the activities like designing, schedule of submittal of drawings, ordering/procurement of materials, manufacturing, delivering, design & construction of associated civil works, installation/erection, testing and commissioning of Works and Operation & Maintenance of Works to be executed under the Contract.

The Program of Works needs to show how the Bidder will complete the Works in the foreseen time span.

Initials of Signatory to Bid:

SCHEDULE – E TO BID

WORK TO BE PERFORMED BY SUBCONTRACTORS

The Bidder will do the work with his own forces except the part (s) of the Works listed below which he intends to sub-contract especially the O&M works if the Bidder itself have no such experience.

Items of Works to be Sub-Contracted	Name and address of Sub-Contractor	Statement of similar works previously Executed (attach evidence)
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Note:

1. No change of Sub-Contractor shall be made by the Bidder without prior approval of the Employer.
2. The truthfulness and accuracy of the statement as to the experience of Subcontractors is guaranteed by the Bidder. The Employer's judgment shall be final as to the evaluation of the experience of Subcontractors submitted by the Bidder.
3. Statement of similar works shall include description, location & value of work, year completed and name & address of the clients.
4. This may include manufacturer(s) who are proposed here and their relevant details to be provided accordingly including make, capacity and salient features to make it particularly suitable for the works. The technology used should also be detailed adequately.

Initials of Signatory to Bid:

SCHEDULE – F TO BID

SPECIFIC PLANT AND EQUIPMENT DETAIL

The following documentations have to be provided in this schedule, in the same sequence as given here, using the same numeration.

The bidders must ensure that the proposed equipment meets all the requirements mentioned under these sections. All proposed components of the PV Biogas Hybrid System will be verified and will serve as basis for the technical evaluation. The bidders will not be allowed to change any component after the submission of the bid.

All references in the list refer to the respective chapters in the Employer's Requirements of these Bidding Documents.

- a. Component information: List of major electromechanical equipment suppliers, final product data, datasheets and specifications as defined in:
 - i. Biogas: Supplier and model name for all major components of both plants as listed in **Error! Reference source not found.**; incl. data sheets for the following components: membranes, pumps, agitators, generators and CHP. Description and supplier of biogas control; all component information as specified in the relevant chapters (see **Error! Reference source not found.** etc.)
 - ii. PV and Battery: All component information as specified in the relevant chapters (see **Error! Reference source not found.**)
 - iii. Grid connection and switchgears: Supplier and model name for all switchgears (automated and manual) and safety and surge protection devices. Must be compliant with **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.**

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- iv. Control: Description of the planned control system: Supplier and model name for main hardware (PLC), software solution description (platform, self- or third-party developed, if possible 2-3 screenshots of HMI etc. – approx. 3 pages). Must be compliant with **Error! Reference source not found.**
- b. Description of Component Warranties: Must comply with **Error! Reference source not found..**

Note: Attach additional sheets, if necessary

Initials of Signatory to Bid:

SCHEDULE –G TO BID

JV AGREEMENT

[Joint Venture Agreement must satisfy the conditions mentioned for Joint Ventures in the ITB]

[A draft Joint Venture Agreement is to be attached, which is to be signed by the Joint Venture partners in the Joint Venture, after the bidder is declared successful].

(In the event that the successful Bidder is a joint venture formed of two or more companies, the Employer requires that the parties to the joint venture accept joint and several liabilities for all obligations under the Contract.)