

TENDER DOCUMENT FOR EMPANELMENT OF AGENCIES TO PROVIDE AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION SYSTEM

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EMPANELMENT OF AGENCIES FOR AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION SYSTEM IMPLMENTED BY GGRC ON BEHALF OF GOVERNMENT IN GUJARAT STATE

E-TENDER NOTICE

GUJARAT GREEN REVOLUTION COMPANY LIMITED (hereafter referred to as GGRC) is working as an Implementing Agency on behalf of Government of Gujarat (GOG) and Government of India (GOI) to bring second Green Revolution in consonance with the Agriculture Policy and Vision of Government of Gujarat so as to save water, fertilizer and energy, besides multiple benefits to improve agricultural productivity and farmer's prosperity at large.

GGRC is pleased to invite "E-Tenders" through Govt. e-Marketplace (GeM) from experienced firm/company /agency for "TENDER DOCUMENT TO PROVIDE AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION SYSTEM"

Important details of E-Tendering

1. The EOI can be submitted online only at n(code) Portal.
2. Important details about EOI

Tender No.	GGRC/MIS Field/Aerial Survey/2023-24
Name of Work	AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION SYSTEM IMPLMENTED IN GUJARAT STATE
Location	GGRC, Vadodara
Contract Period	6 months
Expression of Interest Fee (in Rs.)	Rs. 1,000/- (Non Refundable) plus applicable GST
EMD (in Rs.)	Rs. 10,000/- (Refundable)
Registration Fee (in Rs.)	Rs. 10,000/- (Non Refundable) plus applicable GST
Security Deposit Interest Fee (in Rs.)	Rs. 1 Lakhs Bank Guarantee
Tender Notice Date	04/03/2024
Tender Date	04/03/2024
Pre-Bid Meeting Date & Time	07/03/2024 at 11:00 AM
Pre-Bid Meeting Venue	Discussion Room GGRC, Fertilizernagar, Vadodara.
Last Date of Tender submission	12/03/2024 at 18:00

Selection Criteria:**Experience**

- The bidder should be firm/company registered in Gujarat State and functional since last 3 Year.
- Bidder should have minimum one year of experience in Drone Services.

Turn over

- Financial strength: The agency/organization should have minimum yearly average turnover of - Rs. 100 lakhs (1 Cr.) during last three years as per audited statements.

Accreditation

- Agencies having Awards, Accolades and Accreditation would be preferred.

Manpower & Network

- Existing network in Gujarat.
 - Firm/Company should have DGCA certified instructor level pilot to carryout Drone Operation smoothly.
 - The bidder should have a multiple drone team capacity to be deployed for efficient and timely completion of the project.
 - The agency should not have been blacklisted /terminated / dropped out earlier from any of the Govt. Dept./Agencies or any other company. A notarized undertaking in this regard will have to be produced if selected for empanelment.
3. Interested agencies to study entire EOI documents check detailed selection criteria, detailed terms and conditions and general instructions of this EOI document before submitting the EOI online.

Managing Director
GGRC

PART A - MINIMUM ELIGIBILITY CRITERIA

1. The bidder should be firm/company registered in Gujarat State and functional since last 3 Year.
2. The Bidder should have Turnover of minimum **Rs. 100 Lakh (1 Cr.)** in Last Financial Year.
3. Bidders should engage DGCA certified pilot to carryout Drone Operation smoothly.

Bidders have to submit Technical Bid with the following documents online

- I. Bidder has to pay E.M.D. as mentioned in tender notice. The EMD is payable in favour of Gujarat Green Revolution Company Limited, Vadodara Drawn on any Scheduled Commercial Bank / Nationalized Bank by Demand Draft or Banker's Cheque or Direct deposit with Bank of Baroda Account No. 02090200000334, IFSC Code: BARB0FERTIL only.
- II. Bidder has to upload Scan copy of DD/Banker's Cheque online.
- III. Certificate of Registration/ Partnership deed or firm registration certificate/ shop establishment certificate.
- IV. GST Registration
- V. PAN Card
- VI. MSME Certificate
- VII. Cancelled Cheque / Bank Passbook
- VIII. Bidders have to sign and attach undertaking in regards to firm/company Blacklisted or not.
- IX. Proposed action plan to carry out Work. Confirming to the specifications of Drone and services as per Scope of work (Part-C)

PART B – TERMS AND CONDITIONS

1. The contractor will deploy manpower for satisfactory execution of the Jobs under the proposed contract. The manpower engaged by you will work effectively and be responsible for completion of the jobs assigned to them by company's authorized person or contractor.
2. The assigned work cannot be outsourced to any other entity.
3. GGRC consider at its sole judgment that the drone pilot/ man power / staff deployed by the agency are unsuitable for the scope of work for whatever; the GGRC will request the party for prompt replacement at the party's cost.
4. All the agency's employees shall abide by prevailing statutory state and central Govt. laws and GGRC shall not be responsible for any default in this regard by the agency. Agency shall ensure safety/insurance of their staff deployed for the assigned jobs.
5. GGRC reserves the right to accept/cancel/reject any/all bids without assigning any reason thereof. The tenders of minimum eligibility criteria qualified Bidder/Bidders shall only be considered for QCBS evaluation.
6. Bids shall remain valid and open for acceptance for a period of 60 days from the last date of submission of bids.
7. Joint venture is acceptable and Scores will be clubbed for Evaluation.
8. All type of fees should be deposited directly deposited in following bank account of M/s. Gujarat Green Revolution Company Limited

Details for direct bank transfer.

Account Details	: Bank of Baroda
Account No.	: 02090200000334
IFSC Code	: BARB0FERTIL

9. Expression of Interest fees

Rs. 1,000/- plus applicable GST (Total Rs. 1,180/- including 18% GST) EOI Fees shall be payable on the submission of EOI. The fees shall be non refundable. The payment should be made in bank account of GGRC mentioned in point no-9 above.

10. EMD

Agency/Bidder have to upload receipt of direct deposit for EMD of Rs. 10,000/- (Rs. Ten Thousand only). EMD is refundable in case of unsuccessful agency/bidders.

11. Registration Fees

Upon selection , registration fees of Rs. 10,000 plus applicable GST (Total Rs. 11,800/- including 18% GST) required to be paid by party to GGRC in bank account of GGRC mentioned in point no-9 and retained EMD will be refunded to their bank account.

12. Security Deposit:

Upon selection and registration, the party will be required to provide bank guarantee of Rs. 1,00,000/- (Rs. One lakh only) for one year as interest free security deposit.

Based on GGRC assessment of satisfactory performance in all respects and upon discharge of all obligations under the contract, the security deposit will be refunded only after completion of six months of empanelment period.

13. Payment Terms:

Payment shall be released subject to following:

- a. All the payment will be made based on work order based on supporting documents evidence etc., Applicable Income Tax will be deducted from the payment.
- b. Bidder will raise an invoice (hard copy) on completion of work. Payment will be done within 30 days after receiving an invoice.(Weekly/Fortnight or monthly invoice of completed work can be raised)

14. Amendment of Tender

At any time prior to the deadline for submission of Tender, GGRC, Vadodara for any reason, whether at its own initiative or in response to the clarifications requested by prospective interested bidders, may modify the Tender document by amendment.

15. Rejection of Tender:

The Bidder is expected to examine all instructions, terms, conditions, schedules and other details called for in this specification and keep himself fully informed about all which may, in any way, affect the work, or cost thereof. Failure to furnish the required information or submission of tender not as per the specification will be at the Bidder's risk and may result in rejection.

16. Procedure for submission of Bid:

- I. The Interested bidders shall have to submit required details in Table-1 (Technical bid) along with documentary evidences for pre-qualification
- II. Agencies shall also have to fill up the rate (Financial bid) in Part-E through on line (n-code portal) only.
- III. For financial bid, the bidder shall indicate, in the price schedules, enclosed in the bid proposal sheet, the F.O.R. Destination prices for survey Work as per technical detail it proposes to furnish under the contract, excluding GST and cess along with the total bid price.
- IV. GST shall be applicable at the rate of 9% CGST plus 9% SGST or 18% IGST, or as applicable to composite supplies in the nature of works contract applicable from time to time will be paid within the original contractual delivery period.

17. General Instructions

- I. GGRC reserves rights to extend the due date for submission of Tender by issuing an amendment.
- II. EOI, if not supported by required documents as mentioned above will not be considered and the Agency/Bidder would be construed as disqualified.
- III. The agency/bidders submitting EOI without EMD or EMD for lesser amount would be construed as disqualified.
- IV. The Expression of Interest should be prepared in English.

18. Intellectual Property

GGRC retains all rights to its pre-existing intellectual property and any intellectual property it creates in connection with the agreement; and the Bidder assigns to organization all rights in any work product developed.

19. Settlement of Disputes And Arbitration

In case any dispute or difference whatsoever arises between the parties hereto in respect of or relating to or touching this tender and Contract from the tender , then the parties shall try to settle every such dispute or differences amicably. Any such dispute or differences, which the parties cannot resolve in an amicable manner, shall be finally settled in accordance with the

Arbitration and Conciliation Act, 1996 and Rules framed there under. The decision of Arbitrator shall be final and binding on the parties. Arbitration proceedings shall be conducted in Vadodara and the language of Arbitration shall be English. Notwithstanding the existence of any such dispute or difference or any reference thereon, the liabilities and obligations under this contract will continue to be fulfilled by the parties hereto during the arbitration proceedings.

20. Jurisdiction of Courts

This shall be construed and governed by the laws of Republic of India and the parties hereby submit to the exclusive jurisdiction of the Vadodara Courts of Law.

21. Comparison and Evaluation of Tenders

The tenders shall be compared on the basis of price quoted by the bidders firm for the entire scope of proposal.

Need basis, GGRC authority will negotiate the price bid offered by successive bidders.

22. Right to Place the Order

GGRC reserve right to consider any tender in part or full other than lowest or even reject any or all the tender without assigning any reason.

23. Credential verification:

After the short listing of the Agency(ies), GGRC at its sole discretion may carry out the verification of the credentials by physically visiting the Office(s) of the Agency(ies) and may ask for the necessary documents as deems fit during such verification. The credential verification of the selected agencies on regular interval as deems fit by GGRC may also be carried out.

24. Disclaimer:

The information in this document has been prepared to assist the firm/s in preparing the non binding EOI and it is clarified that:

- I. It does not constitute an invitation to offer or an offer in relation to the transaction.
- II. This document does not constitute any contract or agreement of any kind whatsoever.
- III. This document does not purport to contain all the information that interested firm/s and their advisors would desire or require in reaching decisions as to the requirement / interested. Firm/s should form their own view as to what information is relevant to such decisions and make their own independent investigations in relation to any additional information.

- IV. Neither the information in this document nor any other written or oral information in relation to the requirement or otherwise is intended to form the basis of or the inducement for any investment activity or any decision to enter into any contract or arrangement in relation to the transition and should not be relied on as such. Neither GGRC Ltd., nor their employees or advisors shall be liable to any interested party or any entity under any law including the law of contract, tort, the principle of restitution or unjust enrichment or otherwise for any loss, expenses or damage which may arise, or be incurred, or suffered, in connection with this document, or any matter that may be deemed to form part of this document, or any other information supplied by or on behalf of, GGRC Ltd. or their employees or advisors or otherwise arising in any way from the selection process mentioned herein.
- V. GGRC Ltd. is not bound to accept any or all the EOIs. No applicant shall have any cause of action or claim against or its officers, employees, advisors, agents, successors or assignees for rejection of this EOI
- VI. Failure to provide information that is essential to evaluate the applicant's qualifications or substantiation of the information supplied, shall result in disqualification of the applicant.
- VII. It shall not be assumed that there shall be no deviation or change in any of the herein mentioned information. While this document has been prepared in good faith, neither GGRC Ltd. or any of their officers or employees or advisors or agents make any representation or shall have any responsibility or liability whatsoever in respect of any statements or omissions here from. Any liability is accordingly expressly disclaimed by GGRC Ltd. or any of their respective officers, employees, advisors or agents, whether negligent or otherwise.

25. Labour Laws

You shall not employ persons below the age of 18 years for the work. No female worker shall be employed in the night hours between 7.00 pm and 6.00 am. All the labours employed by you shall be under your direct supervision and control and there shall not be any employer-employee relationship with GGRC. You shall maintain a valid Labour license under the Contract Labour (Regulation and Abolition) Act for employing necessary manpower required by you. You shall also comply with all labour and other laws including Employees Provident Funds And Miscellaneous Provisions Act, 1952 and shall obtain PF code there under, failing which you shall fully indemnify and hold GGRC harmless against any action, claim, suit, and / or any other damages accruing to GGRC resulting from such non-performance. GGRC shall not be responsible for non-compliance thereof and any consequences arising there from.

PART C - SCOPE OF WORK

Background

The scope of work involves the use of Drone Technology to verify the installation of Micro Irrigation systems in designated fields as per the records provided by GGRC.

Primary Objectives:

1. Aerial survey of the Micro Irrigation System using the drone to capture high-resolution imagery.
2. Geo Referencing of Micro Irrigation System (MIS) Components and Land Area as a whole.
3. Map the location of **Head Unit** (Bye pass valve, filter, ventury/ fertilizer tank/ header assembly/ air release valve etc.) and location of **Field Unit** (Main/ submain pipeline/ emitting pipe/ valve/ sprinkler and other components etc.) all related component of Micro Irrigation Systems
4. Assess the condition of the micro irrigation infrastructure (Installed or not).
5. Generate accurate and detailed map with GIS attribute information for better management.
6. Generate accurate data with the help of kml to generate attribute information.

Methodology:

1. **Primary Data Collection Preparation:** Generating a .kml file based on the provided **manual data**.
2. **Drone Setup :** Drone with a high-quality camera (Min. 20 MP preferable) capable of capturing image.
3. **Flight Planning :** Plan the drone flight path according to .kml to cover the farm.
4. **GNSS Referencing:** Set GNSS Base and Mark GCP using RTK or PPK. Also provide RTK or PPK correction for drone to get precise GNSS with accuracy of +/-3cms
5. **Aerial Data Collection:** Manual data will be provided for water source survey and .kml data generated by agency using manual data must be used for farm aerial survey to get accuracy. Conduct the drone flight to capture imagery with high-resolution videography. From height of 20- 50m (should be adjustable as required)

For each site/ installation/ farmer, the drone should capture the following images:

- Aerial image from a 90° angle to confirm the installation of micro irrigation laying pipes (1 image)
- Aerial image from a 45° angle to confirm the installation of Micro Irrigation (Drip/Mini Sprinkler) system (1 image)
- Aerial image from a 45° or 90° angle, whichever is suitable, to confirm the installation of the Head unit (1 image)

6. **Image Processing:** Process the collected imagery using image analysis software Generate and upload analyzed data on Customized online platform designed for micro irrigation system installation survey. Integrate captured image with Google map
7. **Element Coverage:** Cover pipelines, tanks and other elements of the micro irrigation system
8. **Data Integration:** Integrate the detected elements with the existing geographical information system (GIS).
9. **Data Analysis:** The collected data should be analyzed to prepare comprehensive reports highlighting the status of the Micro Irrigation systems installation and providing detailed information about any issues detected.

Deliverables:

- Raw data of captured High resolution Aerial imagery
 - Case to case Raw data, processed data and data access on online platform
 - High-resolution image / Orthomosaic maps of the irrigation system that show the location & situation of Head Unit ,Field Unit and or other structures.
 - DEM & DTM of irrigation areas./Point cloud information with 3D model and its surroundings.
 - Video Clip of farm
 - Customized Online cloud-based platform access to view captured data areawise
- Online cloud based platform features:
- ✓ Areawise/Farmer wise case to case data sorting and access
 - ✓ Dashboard indicating work progress details
 - ✓ Online report generation with details of Latitude-Longitude confirming system installation or not. The report should be downloadable in Excel format.
 - ✓ Captured data/images can be fetched based on coordinates/farmer details.
 - ✓ Farmer Sub Area integration with Google map with colour code mark. And filter map accordingly
- GIS-integrated data showcasing the location and attributes of the identified features.
 - Report of all components of Micro Irrigation system visible from Aerial Photography
 - Report describing the results installation of Micro irrigation system
 - Documentary Aerial videography clip of farm.

Team Capacity

- Licensed Pilot and Certified drone instructor to conduct safe operation.
- The bidder should have a multiple drone team capacity to be deployed for efficient and timely completion of the project.

Note:

- Approx size of each field is 1-2 Hectare (It may be less than 1.00 Hectare or more than 2 Hectare)
- Sites are not in bunch, they are located at distant area. Hence bidder has to include Transportation expenses in financial bid.
- For operation initialization Manual data will be provided. Then bidder has to prepare required data to conduct Drone survey.
- Coverage: approx. 25 to 30 sites per day
- Empanelled party has to ready to work as per L1 rate received in E-Tender
- District will be allotted for Arial survey of Micro Irrigation System.

PART D – TENDER EVALUATION

GGRC will examine the Bids based on technical parameters as under:

1. Technical Evaluation Criteria-

Sr. No.	Details	Particulars
1.	No. of Drone Project completed with Gujarat State Govt.and Any other Government department	
2.	Drone Survey/Surveillance AND Monitoring Service Experience	
3.	No. of Drones with bidder	
4.	No. of Trained & Licensed Pilot	
5	Presentation of work Methodology (Score)	

- **In the first stage**, the evaluation of the minimum eligibility documents submitted by the bidders as per PART-A will be carried out. Based on this evaluation, a list of short listed bidders shall be prepared.
- **In the second stage**, the qualified bidders' proposals shall be evaluated technically. Technical points will be given on the basis of the evaluation of the Technical Bids by the eligible bidder as per the Evaluation Criteria mentioned in PART-D point 1.
- **In the third stage**, a financial evaluation will be carried out. Bidders needs to qualify technical bid to be eligible to open the financial bid.

Only the bidders fulfilling the technical eligibility Criteria as PART-A are allowed to participate in this tender. The “Technical Bid” shall be opened first. “Financial Bid” shall be kept unopened till the Technical Evaluation gets completed and marks are awarded to the respective bidders.

GGRC will empanel those bidders (more than one) who qualify for technical and financial bids and is prepared to match & ready to work @ L1 rate received and whose technical quotation has been determined to be substantially responsive and should in conformity with the requirements of the specifications and documents contained herein, provided further that the bidder is determined and evaluated to be qualified to perform the contract satisfactorily.

PART E – FINANCIAL BID

Particular	Unit	Rate per Day in Rs. (Excluding GST)
Drone Survey of MIS installation (including transportation & hospitality charges)	Per Day	

Note: No other cost other than the above mentioned costs will be considered.

(Draft of Covering Letter)
On company's letter head

No. _____

Date: _____

To,
The Managing Director
Gujarat Green Revolution Co. Ltd
Fertilizernagar Township,
PO: Fertilizernagar
Dist. Baroda 391 750

**Sub: EXPRESSION OF INTEREST FOR EMPANELMENT OF AGENCY FOR
AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION
SYSTEM**

Dear Sir,

We have received "Expression of Interest" through down loading from n(code) portal.

We have gone through scope of work, selection criteria for short listing and general terms & conditions, and all are acceptable to us. Considering this, we are submitting all detailsonline.

The Technical and financial bid is submitted online at n(code) portal only.

Thanking You,

Yours faithfully,

For _____

(Authorized Signatory)
(Name)

(Seal of the Company)

Table-1 TECHNICAL BID

AERIAL MONITORING SERVICES TO SURVEY INSTALLED MICRO IRRIGATION SYSTEM

Sr. No.	Criteria*	Details to be filled-up by Bidders
1	Registration details Pl provide registration type, date, (Upload 1. registration document 2. List of trustees/directors/office bearers)	
2	No. of Drone Project completed with Agriculture/Irrigation Department of Govt. of India	1. Experience in no of years _____ Organization_____ for _____field/scheme 2. Experience in no of years _____ Organization_____for_____field/scheme 3. Experience in no of years _____ Organization_____ for_____field/scheme
3	Value of single Drone Project completed with Agriculture /Irrigation Department of Govt. of India	In Rs.
4	No. of Drone Project completed with Gujarat State Govt.	1. Experience in no of years _____ Organization_____ for _____field/scheme 2. Experience in no of years _____ Organization_____for_____field/scheme 3. Experience in no of years _____ Organization_____for_____field/scheme
5	Drone Survey/Surveillance and Monitoring service experience	1. Experience in no of years _____ Organization_____ for _____field/scheme 2. Experience in no of years _____ Organization__for_____field/scheme
6	No. of drone with bidder	
7	Existing Manpower in Gujarat	No of employees _____ No. of trained and licensed pilot _____
8	Awards /Accolades /Accreditation	List out details of Awards /Accolades /Accreditation 1 _____

*Documentary evidences of all criteria mentioned above has to be submitted online.