

### Bid Document

Bid Details	
Bid End Date/Time	30-06-2021 16:00:00
Bid Opening Date/Time	30-06-2021 16:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	30 (Days)
Ministry/State Name	Ministry Of Agriculture And Farmers Welfare
Department Name	Department Of Agricultural Research And Education (dare)
Organisation Name	Indian Council Of Agricultural Research (icar)
Office Name	Central Soil Salinity Research Institute
Total Quantity	1
Item Category	Soil EC and moisture probes
Minimum Average Annual Turnover of the Bidder	2 Lakh (s)
Years of Past Experience required	2 Year (s)
MSE Exemption for Years Of Experience and Turnover	Yes
Startup Exemption for Years Of Experience and Turnover	Yes
Document required from seller	Experience Criteria,Bidder Turnover,OEM Authorization Certificate *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled	No
Time allowed for Technical Clarifications during technical evaluation	2 Days
Evaluation Method	Total value wise evaluation

#### EMD Detail

Required	No
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#### ePBG Detail

Required	No
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#### Splitting

Bid splitting not applied.

#### MII Purchase Preference

MII Purchase Preference	Yes
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**MSE Purchase Preference**

MSE Purchase Preference	Yes
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1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria". If the bidder is OEM of the offered products, it would also be exempted from the "OEM Average Turnover" criteria. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.
2. If the bidder is a Startup, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria". If the bidder is OEM of the offered products, it would also be exempted from the "OEM Average Turnover" criteria. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.
3. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
4. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
5. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.
6. Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer)of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25%(selected by Buyer) percentage of total QUANTITY.

**Soil EC And Moisture Probes ( 1 set )**

(Minimum 50% Local content required for MII compliance)

Brand Type	Unbranded
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**Technical Specifications**

Buyer Specification Document	<a href="#">Download</a>
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**Consignees/Reporting Officer and Quantity**

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Charan Singh Meena	132001,The Director Central Soil Salinity Research Institute, Zarifa Farm, Kachwa Road, Karnal-132001 (Haryana)	1	15

**Buyer Added Bid Specific Additional Terms and Conditions**

1. Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.
2. IMPORTED PRODUCTS: In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.

**Disclaimer**

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization. Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specification and / or terms and conditions governing the bid. Any clause incorporated by the Buyer such as demanding Tender Sample, incorporating any clause against the MSME policy and Preference to make in India Policy, mandating any Brand names or Foreign Certification, changing the default time period for Acceptance of material or payment timeline governed by OM of Department of Expenditure shall be null and void and would not be considered part of bid. Further any reference of conditions published on any external site or reference to external documents / clauses shall also be null and void. If any seller has any objection / grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

[This Bid is also governed by the General Terms and Conditions](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

**---Thank You---**

## Technical specifications;

### *Soil EC and moisture probes*

The IOT-based soil salinity monitoring system must acquire the real time soil Parameters in multiple soil depth (0-15cm, 15-30cm, 30-45cm). The system should be able to send the data to the cloud sever. The system will consist the items with specification as mention bellow:

Item Name	Specification	Quantity*
<b>IOT Gateway Master System (GPRS based master data logger)</b>	60 Channel Data Logger 16-bit ADC, Display: 20*4 LCD Display; The IOT Master gateway will acquire data, and will store and transfer the same using GPRS cloud, on server software. The system will also generate various reports, and excel, pdf sheets for the information sheet. The system needs to be a battery based, with optional facility for solar based charging. The system needs to be IP 65 outdoor units, weather proof, with complete mountings etc.	1
<b>IOT End Point System (Slave data logger – modbus)</b>	Design: Microcontroller based (ARM LPC 2148) with LORA wireless /Modbus/ZigBee modules. for data transfer to the master gateway. The system needs to be IP 65 outdoor units, weather proof, with complete mountings etc. Channel for analog/Digital, RS485, S232 Memory: SD Card (8 GB). Options: High rate/Low rate Channel Selection. Timing: Build in Real Time Clock. Supply: AC operated/Battery Operated/DC Operated. Data Storage: In MS Excel Sheet, each record is stored with Time &Date Relay Interface: Can be used to interface a +12V DC component. Communication: Wi-Fi, RS485, Ethernet should be available. Data Logging: Real Time with programmable log and storage time. Settings: Using a Hex keyboard to set the various parameters, to configure the channel and to manually set rate for the sample and hold the channel number. Size table top The IOT end points need to be with wireless LORA Based battery. The system needs to be interface with all below mentioned soil sensors.	1
<b>Soil moisture-temperature-EC-sensor</b>	<b>Temperature:</b> Soil temp = -20°C to 70°C Accuracy = ±0.5°C Power consumption: < 7mA, Supply Voltage: - 3.5V to 20 VDC. Resolution: 0.1°C. <b>Moisture:</b> Operational Temperature: - 40 °C to 85°C; Accuracy: 2% within 0-50%	6

	<p>Output 0 to 3V related to moisture content Range: = 0-100 %</p> <p>Resolution: 0.03% within 0-50%.</p> <p><b>EC:</b> Range: 0-20000us/cm</p> <p>Resolution: 10us/cm within 0-10000us/cm; 50us/cm within 100000- 20000us/cm</p> <p>Accuracy: <math>\pm 3\%</math> in the range of 0-10000 us/cm; <math>\pm 5\%</math> in the range of 10000-20000 us/cm.</p>	
<b>Soil pH sensor</b>	<p>Range: 0-14 pH, Accuracy: <math>\pm 0.02</math>pH, Resolution: 0.01 pH</p> <p>Output signal: 4-20 mA, 0-5v, rs485</p> <p>Power supply: 12-24V</p> <p>Operating temperature: 0-80°C IP grade: IP68</p> <p>Cable length: 1.5m standard</p>	7
<b>Accessories</b>	Pipe and wiring, solar Panel (100 w) and Battery (75 Ah) and pole and other mounting accessories as required for installation	
<b>Cloud server</b>	<p>Cloud Software should have daily, monthly, weekly report generation in pdf, graphical format.</p> <p>Cloud Software should have the facility to weekly, monthly automatically email generation.</p> <p>Can also have facility for data transfer to local server PC.</p> <p>Can have facility of on-board SD card data storage.</p> <p>GPRS module should have the facility to transfer the data remotely in 2G, 3G, and 4Gnetwork.</p> <ul style="list-style-type: none"> <li>✓ Data should be monitor by mobile app from remote location.</li> <li>✓ Threshold facility should be available.</li> </ul> <p>User id / password protected system</p>	
<b>Installation</b>	<p>All sensor installation should be as per WMO guidelines.</p> <ul style="list-style-type: none"> <li>✓ 100-watt Solar Panel with 75 Ah Battery should be supplied.</li> <li>✓ GUI pipe and all the wire should be grounded.</li> <li>✓ All poles and mounting should be in vendor scope.</li> <li>• NABL lab calibration certificate should be provided.</li> </ul>	

\*actual quantity at time of purchase order may vary depending on available fund.

**Other terms and conditions:**

1. Bidder has to give a complete power point presentation along with some sensor to the principal investigator and the committee with all reports.
2. All bidders must have prior experience of supplying similar category of items to higher education institutions like IITs/IIMs or the institutions of similar reputation.
3. Bidders must quote the OEM provided/duly certified sets only and not the assembled sets in any case as the offers/bids of assembled sets will be rejected straightaway without assigning any reason on the same.
4. The bidder should demonstrate the complete project physically before technical qualification for seven days at ICAR-CSSRI, KARNAL 132001.
5. System should be capable of future expansion or addition of more sensors upto 240.

6. Bidders should have his manufacturing unit or service center in this region, so in case of any service query should be solved within 48 hours.
7. The supplier needs to provide a handheld portable terminal to acquire the data off site also.
8. The supplier needs to provide the complete information to execute the projects, in totality, all integration *etc.*