

**National Competitive Bidding (Open Tender)**

**TENDER DOCUMENT**

**FOR**

**SURVEY, SUPPLY, INSTALLATION & COMMISSIONING ALONG  
WITH 5 YEARS COMPREHENSIVE WARRANTY & MAINTENANCE  
OF SOLAR WATER MICRO PUMPS (0.25-1 hp) FOR AGRICULTURE AND  
ALLIED ACTIVITIES**

**In**

**VARIOUS DISTRICTS OF JHARKHAND, ODISHA AND ASSAM STATES**

**by**



**Resource Conservation & Management Division  
Federation of Indian Chambers of Commerce and Industry  
Federation House, Tansen Marg, New Delhi – 110 001**

**(June 2021)**

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## 1. Tender Notice

### a. Introduction

Federation of Indian Chamber of Commerce and Industry (FICCI) in association with Syngenta Foundation India (SFI) and Transform Rural India Foundation (TRIF) is implementing a project on 'Technical support in the design, implementation and evaluation of field trial on solar water pumping solutions appropriate for agriculture and allied value chains'. The project is funded by GIZ. Under the project, 50-70 nos. of suitable Solar Water Pumping schemes need to be designed and installed for marginal farmers engaged in agriculture and allied activities in different regions of the States of Assam, Jharkhand and Odisha with 25% contribution from farmers.

### b. Invitation for Tender:

FICCI invites Online Bid for the Tender on "Survey, Supply, Installation & Commissioning and 5 Years Comprehensive Warranty & Maintenance of Solar Water micro Pumps (0.25-1 hp) for Agriculture and Allied Activities in various districts of Jharkhand, Odisha and Assam" from Bidders who are a 'Registered Company with manufacturing or supplying facility in India SPV Cells / Modules OR Motor-pump Sets OR Solar Pump Controller or a PV System Integrator'.

The Tender document may be downloaded from Web site <https://ficci.in> (For view and download). Offer / Bid is required to be submitted by online (email) mode only to [PROCUREMENT@FICCI.COM](mailto:PROCUREMENT@FICCI.COM).

### c. Time Schedule for the Bid

Table 1: Time schedule for the bid

S. No.	Description	
1.	Tender Notice No.	FICCI/SWP/2021
2.	Date of Tender Advertisement	15.06.2021
3.	Particulars of the work	Survey, Supply, installation and commissioning of Micro Solar PV Pumping System for Agriculture and allied activities with 05 years warranty and comprehensive maintenance at the identified sites by FICCI and GIZ.
4.	Tender Fee (Rs)/EMD	NA
5.	Last Date to receive <i>Pre-Bid queries</i>	Kindly send your pre-bid queries by 30.06.2021 via email only to <a href="mailto:Karishma.bist@ficci.com">Karishma.bist@ficci.com</a> <a href="mailto:Pushpendra.nayak@ficci.com">Pushpendra.nayak@ficci.com</a> (Pre-bid queries received after this deadline shall not be entertained)
6.	Reply to <i>Pre-Bid queries</i>	The reply to the queries will be posted on the FICCI website within 7 working days in the form of FAQs.
7.	Last date for Bid submission	15.07.2021
8.	Mode of submission of Bid	Only by email <a href="mailto:PROCUREMENT@FICCI.COM">PROCUREMENT@FICCI.COM</a>
9.	Period of work	To be completed within 2 months from the date of award of work.
10.	Joint Venture	NA

## 2. Bid Details and Important Instruction to Bidders

- a. The technical bid along with financial bid are required to be submitted via email only at [PROCUREMENT@FICCI.COM](mailto:PROCUREMENT@FICCI.COM) . No hard copies will be accepted. The technical and commercial bid shall comprise all the technical details of solar Photovoltaic Water pumping system offered in accordance with MNRE specification. The last date for submission of bid is 15.07.2021.
- b. Bids sent to any other email id, apart from [PROCUREMENT@FICCI.COM](mailto:PROCUREMENT@FICCI.COM) shall be immediately disqualified. Any bids/supporting tender documents sent after the tender deadline expiration shall also not be considered for evaluation.
- c. Bidders are requested to send the technical & financial proposals as separate attachments in pdf format, in a single mail along with all supporting documents in a compressed folder not exceeding file size of 10 MB in total.
- a. The tender is invited on behalf of GIZ. However, Letter of Acceptance / letter of Intent/work order shall be issued by FICCI. Bidders will have to abide all the terms and conditions against Letter of Intent (LOI) / Letter of Acceptance (LOA) / work order placed by FICCI.
- b. The pre-bid queries can be sent by 30.06.2021 via email only to FICCI as per below given details. The replies to the queries will be posted on the FICCI website within 7 working days in the form of FAQs. No separate reply will be sent to the bidders.
- c. All queries and clarifications that may be required pertaining to this Tender should be referred through email to:

Karishma Bist  
Additional Director  
FICCI - Resource Conservation & Management  
Federation House, Tansen Marg, New Delhi – 110001  
E-mail: karishma.bist@ficci.com / Pushpendra.nayak@ficci.com

## 3. Eligibility Criteria for Bidders

- a. The bidder should be: A Registered Company in India for supply and installation of - SPV Modules OR Motor-pump Sets OR Solar Pump Controller (Test Certificate for any one of the above components from a NISE or any NABL empanelled testing lab is mandatory) or a PV System Integrator.
- b. The bidder should have a minimum 3-year average turnover of Rs. 1 Crore. The certified copy of balance sheet for any 3 consecutive years (2015-16, 2016-17, 2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant along with CA certificate for turn over & Net worth to be included in technical bid.
- c. The bidder should have an experience of supplies and satisfactory commissioning of at least 50 numbers of the Solar Photovoltaic Water Pumping Systems (out of which at least 25 numbers should be micro SWP) in the agriculture sector to any State Nodal Agencies / Government Departments / Private sectors during the last three years from the date of submission of TENDER.

- d. The bidder should provide the Solar water pumps system which fits as per the technical specifications given in the tender document.
- e. The bidder should have at least 10 Nos. of technically qualified and well experienced manpower for Installation and after sales service of the systems.
- f. The bidder should have Test Certificates (at least 1 certificate) for the tendered micro solar water pumping system from a NISE or any NABL empanelled testing lab at the time of bidding and the bidder has to submit remaining test report before placing of work order.
- g. The bidders should have ISO 9001 quality certifications at the time of bidding.
- h. The bidders should have at least one service centre in any of the proposed States at the time of bid participation and the bidder must submit the details of the service centre along with the Bid.
- i. Bidder should not be blacklisted by any Govt. Agency for not honouring the order after bidding OR not supplying in time OR not providing after sales service.

#### 4. Scope of Work and Technical Specifications

The scope of work includes survey, design, supply, installation, commissioning of about 60 numbers ( $\pm 20\%$ ) of micro-Solar PV Pumping System including 05 years comprehensive warranty maintenance at various sites in villages/hamlets, institutions, individuals etc. of various districts of Jharkhand, Odisha and Assam at sites identified by FICCI/GIZ as per the technical specifications given in section 5.1.

The following blocks are being identified where the micro solar water pumps need to be installed for marginal farmers. In this regard, FICCI invites bid for this tender.

**Table 2: Indicative no. of pumps to be installed in identified blocks.**

Sr. No.	State	Districts	Block	Proposed number of SWPs *	0.25 HP	0.50 HP	1 HP
1	Jharkhand	Ranchi	Bero	20	8	10	2
		Ranchi	Angara				
		Palamu	Chainpur				
		Ramgarh	Gola				
2	Orissa	Rayagada	Muniguda	20	8	10	2
		Rayagada	Kalyansinghpur				
		Kalahandi	Junagarh				
		Kalahandi	Dharmagarh				
3	Assam	Golaghat	Morongi, East Podumoni	20	8	10	2
		Karbianglong	Nilip, Bukajan				
	Total			60	24	30	6

**Note:- \*The Quantity of each micro Solar pumps at each location is tentative and may increase or decrease as per demand generated during the implementation of project.**

5.1 Technical Specification for Micro Solar Water Pumps

Table 3: Technical Specification of 0.25 HP pump

<b>Motor Horsepower</b>	<b>0.25 HP/0.18 KW</b>
<b>Usage/Application</b>	Agriculture
<b>Water Sources</b>	Borewell, Open well, Water Reservoir, Water Stream etc
<b>PV Array (watt peak)</b>	Minimum 300Wp
<b>Solar Pump Type</b>	Surface / Submersible / Floating pump type
<b>Motor Pump Set</b>	DC Motor Pump Set with brushes/brushless DC or AC Induction Motor with suitable Inverter (IP54 or above standard)
<b>Electronics</b>	<ol style="list-style-type: none"> <li>1. Inverter for AC motor with appropriate electronic controller in case of BLDC motor</li> <li>2. Electronic Protection</li> </ol>
<b>Fixed or Portable system</b>	Portable or Semiportable
<b>Installation Type</b>	Plug and Play – Easy to operate
<b>Solar Module Type</b>	Monocrystalline/Polycrystalline
<b>Degree of Protection</b>	IP54 or above standard
<b>Water Output and Total Dynamic Head (TDH)*</b>	<ol style="list-style-type: none"> <li>1. Minimum 10,000 LPD water output at 10 m TDH and shut off head being at least 12 m</li> <li>2. Minimum 5,000 LPD water output at 20 m TDH and shut off head being at least 30 m</li> </ol>
<b>Protection against</b>	Dry running; Open circuit; Accidental short circuit; Under voltage; Reverse polarity; SPD to arrest high current surge; Lightening; hails and storms
<b>Remote monitoring system</b>	With Integrated data logger for web-based monitoring
<b>Warranty</b>	5 Year system warranty and 25-year solar panel warranty
<b>Annual Maintenance</b>	AMC for 5-year
<b>Fittings &amp; Accessories &amp; Others</b>	Cables (IS 694), Wires, Nut bolts, Suction Pipe, Delivery Pipe, floating assembly, civil work etc
<b>Delivery Pipe</b>	Atleast 20 m of suitable size preferably LLDPE flexible & light weighted including all required fittings
<b>Suction Pipe</b>	In case of surface pump, suction head to be limited to 6 m

Table 4: Technical Specification of 0.5 HP pump

<b>Motor Horsepower</b>	<b>0.5 HP/0.37 KW</b>
<b>Usage/Application</b>	Agriculture
<b>Water Sources</b>	Borewell, Open well, Water Reservoir, Water Stream etc
<b>PV Array (watt peak)</b>	Minimum 500 Wp
<b>Solar Pump Type</b>	Surface / Submersible / Floating pump type
<b>Motor Pump Set</b>	DC Motor Pump Set with brushes/brushless DC or AC Induction Motor with suitable Inverter (IP54 or above standard)
<b>Electronics</b>	<ol style="list-style-type: none"> <li>1. Inverter for AC motor with appropriate electronic controller in case of BLDC motor</li> <li>2. Electronic Protection</li> </ol>
<b>Fixed or Portable system</b>	Portable or Semiportable
<b>Installation Type</b>	Plug and Play – Easy to operate

<b>Solar Module Type</b>	Monocrystalline/Polycrystalline
<b>Degree of Protection</b>	IP54 or above standard
<b>Water Output and Total Dynamic Head (TDH)*</b>	<ol style="list-style-type: none"> <li>1. Minimum 20,000 LPD water output at 10 m TDH and shut off head being at least 12 m</li> <li>2. Minimum 10,000 LPD water output at 20 m TDH and shut off head being at least 30 m</li> </ol>
<b>Protection against</b>	Dry running; Open circuit; Accidental short circuit; Under voltage; Reverse polarity; SPD to arrest high current surge; Lightening; hails and storms
<b>Remote monitoring system</b>	With Integrated data logger for web-based monitoring
<b>Warranty</b>	5 Year system warranty and 25-year solar panel warranty
<b>Annual Maintenance</b>	AMC for 5-year
<b>Fittings &amp; Accessories &amp; Others</b>	Cables (IS 694), Wires, Nut bolts, Suction Pipe, Delivery Pipe, floating assembly, civil work etc
<b>Suction Pipe</b>	In case of surface pump, suction head to be limited to 6 m
<b>Delivery Pipe</b>	Atleast 20 m of suitable size preferably LLDPE flexible & light weighted including all required fittings

**Table 5: Technical Specification of 1 HP pump**

<b>Motor Horsepower</b>	<b>1.0 HP/0.75 KW</b>
<b>Usage/Application</b>	Agriculture
<b>Water Sources</b>	Borewell, Open well, Water Reservoir, Water Stream etc
<b>PV Array (watt peak)</b>	Minimum 900 Wp for DC Pump and 1200 Wp for AC pump
<b>Solar Pump Type</b>	Surface / Submersible / Floating pump type
<b>Motor Pump Set</b>	DC Motor Pump Set with brushes/brushless DC or AC Induction Motor with suitable Inverter (IP54 or above standard)
<b>Electronics</b>	<ol style="list-style-type: none"> <li>1. Inverter for AC motor with appropriate electronic controller in case of BLDC motor</li> <li>2. Electronic Protection</li> </ol>
<b>Fixed or Portable system</b>	Fixed/Portable/Semiportable
<b>Installation Type</b>	Plug and Play-Easy to operate (especially in case of portable/semiportable)
<b>Solar Module Type</b>	Monocrystalline or Polycrystalline
<b>Degree of Protection</b>	IP54 or above standard; for fixed type system IP65 is preferred
<b>Water Output and Total Dynamic Head (TDH)*</b>	<p>For AC induction Motor</p> <ol style="list-style-type: none"> <li>1. Minimum 89,000 LPD water output at 10 m TDH and shut off head being at least 12 m</li> <li>2. Minimum 42,000 LPD water output at 30 m TDH and shut off head being at least 45 m</li> </ol> <p>For DC Motor (BLDC)</p> <ol style="list-style-type: none"> <li>1. Minimum 99,000 LPD water output at 10 m TDH and shut off head being at least 12 m</li> <li>2. Minimum 45,600 LPD water output at 30 m TDH and shut off head being at least 45 m</li> </ol>
<b>Protection against</b>	Dry running; Open circuit; Accidental short circuit; Under voltage; Reverse polarity; SPD to arrest high current surge; Lightening; Hails and storms
<b>Remote monitoring system</b>	With Data logger, Integrated data logger for web-based monitoring
<b>Warranty</b>	5 Year system warranty and 25-year solar panel warranty
<b>Annual Maintenance</b>	AMC for 5-year
<b>Asset Insurance</b>	5 Years for theft and burglary for fixed type of system

<b>Fittings &amp; Accessories &amp; Others</b>	Cables (IS 694), Wires, Nut bolts, Suction Pipe, Delivery Pipe, floating assembly, civil work etc
<b>Delivery Pipe</b>	Atleast 20 m of suitable size preferably LLDPE flexible & light weighted including all required fittings
<b>Suction Pipe</b>	In case of surface pump, suction head to be limited to 6 m

\*Under the "Average Daily Solar Radiation" condition of 7.15kWh/ sq.m on the surface of PV Array (i.e coplanar with PV module)

### 5.1.1 Solar photovoltaic Module

1. Modules supplied with the SPV water pumping systems shall have **certificate as per IS14286/IEC 61215 specifications** or equivalent National or International/ Standards. The **name plate** shall conform the IS **14286/IEC 61215**. STC performance data supplied with the modules shall not be more than one year old.
2. Module must qualify to **IEC 61730 part I and Part II** for safety qualification testing.
3. The Efficiency of PV module should be minimum 14% and fill factor should be more than 70%.
4. The terminal box on the module should have a provision for opening or replacing the cables if required.
5. Module to Module wattage mismatch in the SPV array mismatch shall be within  $\pm 3$  percent.
6. Variation in overall SPV array wattage from the specified wattages shall be within zero percent to +10 percent.
7. There should be a name plate fixed inside the module which will give following details:
  - a) Name of the manufactures/distinctive logo
  - b) Model Number
  - c) Serial Number
  - d) Year of Manufacture
  - e) Made in India (Subscribed in words)
8. For fixed structures, the PV modules should be mounted on metallic structures of adequate strength and appropriate design, which can withstand load of modules and **high wind velocities up to 150 km per hour**.
9. The module mounting structure should be **hot dip galvanized (IS 4759) minimum to 80-micron thickness**.
10. The general hardware for structure fitment should be either SS 304 or 8.8 grade. Modules should be **locked with antitheft bolts of SS 304 Grade**. Foundation should be as per the site condition, based on the properties of Soil. Foundation can be done either with the help of 'J Bolt' (refer IS 5624 for foundation hardware) or direct pilling, it should be decided as per the site and relevant IS i.e. IS 6403 / 456 / 4091 / 875 should be referred for foundation design.

### 5.1.2 Motor Pump Set and Controller

1. Pumps should have been tested at NISE or any NABL empanelled testing lab and manufacture should provide required certificate along with bid.
2. The motor pump-set and Controller used in SPV Water Pumping Systems shall be securely marked with the following parameters declared by the manufacturer:
  - **Motor Pump-Set**
    - a) Manufacturer's name, logo, or trademark
    - b) Model, size, and SI No of pump-set
    - c) Motor Rating (kW / HP)
    - d) Total head, m, at the guaranteed duty point



- e) Capacity (LPD) at guaranteed head
- f) Operating head range, m
- g) Maximum Current (A)
- h) Voltage Range (V)
- i) Type - AC or DC Pump set

• **Controller**

- a) Manufacturer's name, logo, or trademark
- b) Model Number
- c) Serial Number
- d) Voltage Range
- e) Power Range in kW for Controller; and
- f) Current rating (A)

3. The type of pump set used must match the total dynamic head requirement of the site (i.e. the location at which it is installed).
4. The pump and all external parts of motor used in submersible pump which are in contact with water, should be of stainless steel of suitable grade required. The motor-pump set should have 5 years warranty.
5. **Manufacture of the pump should self-certify** that, the pump and all external parts of the motor used in submersible pump which are in contact with water are of stainless steel or suitable grade of plastics.
6. **Controller shall be integrated with GSM/GPRS Gateway with Geo tagging.** GSM/ GPRS Charges to be included in the Costing till the end of Warranty period of the Pump set.
7. **Provision for remote monitoring for the pumps** must be made in the pump controller through an integral arrangement having followed basic functions:
  - Controller must be assigned with a unique serial number and its live status must be observed remotely on online portal through login credentials.
  - Live status must indicate whether controller is ON/ OFF
  - The parameter i.e. the water output, water flow rate, in fault condition, array input voltage/ current, power and motor frequency should at logged at an interval of 10 minutes. Controller must have a back up to store the data locally (at least during warrantee period))

**5.1.3 Other Technical Specifications**

1. **Maximum Power Point Tracker (MPPT)** shall be included to optimally use the power available from the SPV array and maximize the water discharge.
2. A good reliable **DC Circuit Breaker as per IS/IEC 60947-2 suitable for switching DC power ON and OFF** shall be provided in the SPV Controller.
3. Earthing of the motor shall be done as per **IS 9283** in accordance with the relevant provisions of IS 3043.
4. For safety purpose, it shall be ensured during installation that the earthing is capable of taking care of leakage current.
5. **For Fixed type system, a lightning arrestor** shall be provided with every SPV Water Pumping System.

6. Solar Photo Voltaic Water Pumping Systems shall be guaranteed by the manufacturer against the defects in material and workmanship under normal use and **service for a period of at least 5 years** from the date of commissioning.

**5.1.4 Handing over of the system to the user:**

1. Signing the checklist from beneficiaries and deputed staff of the vendor
2. Testing and trials of the installed system
3. A operator training on repair and maintenance of the system
4. Handing over the warranty papers to user
5. Handing over AMC documents to user
6. Completion report to be submitted to FICCI.

**5.2 Warranty**

- The PV Modules must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- The whole system including pump set shall be warranted for 5 years. Solar Pumping Systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.
- Sufficient spares for trouble free operation during the Warrantee period should be made available as and when required.
- A warranty card for the modules and the motor pump set should also be provided to the beneficiary at the time of handing over of the system.

**5.3 Insurance**

- During the warranty period, the insurance of the system is under the scope of the supplier. If the system is fixed type, then the insurance of the system to be provided by the supplier.

**5.4 Comprehensive Operation and Maintenance**

- The Contractor should provide 5 years comprehensive maintenance of the Solar Photovoltaic Water pumping system set, which shall include corrective maintenance as well as routine service visits during guarantee period. The bidder shall rectify defects developed in the system within Warranty period promptly.
- Apart from the monitoring and regular periodical maintenance, inspection of system has to be done quarterly basis during AMC. The maintenance report has to be maintained in a prescribed table format in a register maintained at the site which should contain Month, Inspection Date, Action taken against the Defects found in the System and Remarks of the representative of households along with signatures of both service Engineer and the farmer/ beneficiary.

- The deputed personnel shall be in a position to check and test all the equipment at least once in three months, so that preventive actions, if any, could be taken well in advance to save any equipment from damage.
- Normal and preventive maintenance of the Solar Photovoltaic Water pumping systems such as cleaning of module surface, tightening of all electrical connections, changing of tilt angle of module mounting structure, cleaning & greasing of motor pump sets, changing filters etc. are also the duties of the deputed personnel during maintenance visits.
- The maintenance shall include replacement of any component irrespective of whether the defect was a manufacturing defect or due to wear and tear.
- An Operation and Maintenance Manual, in English, Hindi and local language, should be provided with the solar PV pumping system. The Manual should have information about solar energy, photovoltaic, modules, DC motor pump set, tracking system, mounting structures, electronics and switches.
- Manual should also have clear instructions about mounting of PV module, DO's and DONT's and on regular maintenance and Trouble Shooting of the pumping system.
- Centralised toll-free numbers should be provided along with system to contact in case of failure or complaint, if Any.

## 6 Technical Bid

The bidder should provide the following details in the technical bid.

### 6.1 General Particular of Bidder

**Table 6: General details of bidder**

1	Name of Bidder	
2	Postal Address	
3	Mobile no.	
4	Telephone, Telex, Fax No	
5	E-mail	
6	Web site	
7	Name, designation, Mobile Phone No. , email of the representative of the Bidder to whom all references shall be made	
8	Have the Bidder ever been debarred By any Govt. Deptt./ Undertaking to be given.	

### 6.2 Technical details

- Bidders are requested to fill in the technical details of their system as per the table given below. Bidder can add rows or column in the above table, if required.

**Table 7: Table for Bidder for filling Technical Specification**

<b>Motor Horsepower</b>	<b>0.25 HP/0.18 KW</b>	<b>0.5HP/0.37KW</b>	<b>1HP/0.75KW</b>
<b>Usage/Application</b>			
<b>Water Sources</b>			
<b>PV Array (watt peak)</b>			
<b>Solar Pump Type</b>			
<b>Motor Pump Set</b>			
<b>Electronics</b>			
<b>Fixed or Portable system</b>			
<b>Installation Type</b>			
<b>Solar Module Type</b>			
<b>Degree of Protection</b>			
<b>Water Output and Total Dynamic Head (TDH)</b>			
<b>Protection against</b>			
<b>Data logger with web-based monitoring system</b>			
<b>Asset Insurance</b>			
<b>Warranty</b>			

Annual Maintenance			
Fittings & Accessories & Others			
Delivery Pipe			
Suction Pipe			

### 6.3 Other details Particular of Bidder

- 6.3.1 Copy of Certificate of Registration as manufacturing facility in India to be included in Technical bid.
- 6.3.2 Test Certificates (at least 1 certificate) for the tendered micro solar water pumping system from a NISE or any NABL empanelled testing lab to be submitted along with the technical Bid and remaining before placement of work order.
- 6.3.3 The certified copy of balance sheet for any 3 consecutive years (2015-16, 2016-17, 2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant along with CA certificate for turn over & Net worth to be included in Technical bid.
- 6.3.4 The bidder has to submit the copies of work Order / completion certificate showing experience of supplies and satisfactory commissioning of at least 50 numbers of the Solar Photovoltaic Water Pumping Systems (out of which at least 25 numbers should be micro SWP) in the agriculture sector during the last three years from the date of submission of TENDER.
- 6.3.5 The bidder should have at least 10 Nos. of technically qualified and well experienced manpower for Installation and after sales service of the systems. The details of Technical staff available with the company for execution of work is to be given. The Self certified List of technically qualified employees with their name, qualification, years of experience etc. to be provided with a copy of the PF return/details.
- 6.3.6 The Copy of ISO certificates (ISO 9001) for Quality Management System, if implemented should be submitted in "Technical bid".
- 6.3.7 The bidder shall submit the design/system layout of their system offered in the bid as per the technical specifications given in the tender.
- 6.3.8 The bidders have to submit the details of the service centre/s located in any of the proposed States along with the Bid.

## 7 Financial Bid

- The total number of micro solar water pumps are about 60 ( $\pm$  20%) to be installed in 3 no. of States – Jharkhand, Odisha and Assam. This is to be noted that the Quantity of each type of micro Solar pump is tentative and may increase or decrease as per demand generated during the implementation of project.
- The bidder should quote for all 3 States for all capacity of pumps as per the given Template in tender document.
- The bidder should quote for given pump capacities (or nearby capacities) however, the pump must meet the given technical specification and the pump output.
- The bidders need to quote unit price (in Rs) including all taxes, warranty, AMC etc. and should also provide the cost breakup as per the given format in the tender document.
- Financial Proposal must be on the company's letterhead, should be duly signed & stamped by the authorized signatory. The Financial quote must be valid for minimum 60 days.
- The financial bids will be evaluated on '**Total project Cost' inclusive of all taxes (Table no. 11)**. The lowest rate (i.e. L-1) bidder for the project shall be the party to be awarded the contract for all 3 proposed States.
- The financial bid of only techno-commercially qualified bidders will be considered and evaluated. The financial bids of bidders who will not meet the minimum qualifying criteria will be rejected.

## 7.1 Financial Proposal Template

7.1.1 **Quotation for Jharkhand:** Survey, Supply, installation, commissioning and 5 years Warranty with comprehensive maintenance of Complete micro Solar PV Pumping System (about 20 numbers + 20%) at identified sites of Jharkhand, as per technical specifications, terms and conditions mentioned in the tender inclusive of all taxes & duties, GST, Storage, accessories & fittings, transportation upto site etc. and any other job required to properly execute the work.

**Table 8: Quotation for Jharkhand**

S.No	Item	Cost in Rs							
		A	B	C	D	E	F	G	H
		Cost of Solar Water Pumping system with Installation & Commissioning	Cost of data logger with Web based monitoring including GSM / GPRS for 5 years	Cost of AMC for 5 years	Asset Insurance for 5 years (for fixed systems)	Applicable taxes	Units Price inclusive of applicable taxes (A+B+C+D+E)	No. of Units	Total Price (F*G)
1	0.25 hp Solar Pump							8	
2	0.5 hp Solar Pump							10	
3	1 hp Solar Pump							2	
							GRAND TOTAL (Rs)		

**NOTES:**

1. Certified that rates quoted above are as per the requirement, specification terms & condition mentioned in the tender document.

**(Signature of Bidder)**  
**With seal**

**7.1.2 Quotation for Odisha:** Survey, Supply, installation, commissioning and 5 years Warranty with comprehensive maintenance of Complete micro Solar PV Pumping System (about 20 numbers + 20%) at identified sites of Odisha, as per technical specifications, terms and conditions mentioned in the tender inclusive of all taxes & duties, GST, Storage, accessories & fittings, transportation upto site etc. and any other job required to properly execute the work.

**Table 9: Quotation for Odisha**

S.No	Item	Cost in Rs							
		A	B	C	D	E	F	G	H
		Cost of Solar Water Pumping system with Installation & Commissioning	Cost of data logger with Web based monitoring including GSM / GPRS for 5 years	Cost of AMC for 5 years	Asset Insurance for 5 years (for fixed systems)	Applicable taxes	Units Price inclusive of applicable taxes (A+B+C+D+E)	No. of Units	Total Price (F*G)
1	0.25 hp Solar Pump							8	
2	0.5 hp Solar Pump							10	
3	1 hp Solar Pump							2	
								GRAND TOTAL (Rs)	

**NOTES:**

1. Certified that rates quoted above are as per the requirement, specification terms & condition mentioned in the tender document.

**(Signature of Bidder)  
With seal**



**7.1.3 Quotation for Assam:** Survey, Supply, installation, commissioning and 5 years Warranty with comprehensive maintenance of Complete micro Solar PV Pumping System (about 20 numbers + 20%) at identified sites of Assam, as per technical specifications, terms and conditions mentioned in the tender inclusive of all taxes & duties, GST, Storage, accessories & fittings, transportation upto site etc. and any other job required to properly execute the work.

**Table 10: Quotation for Assam**

S.No	Item	Cost in Rs							
		A	B	C	D	E	F		G
		Cost of Solar Water Pumping system with Installation & Commissioning	Cost of data logger with Web based monitoring including GSM / GPRS for 5 years	Cost of AMC for 5 years	Asset Insurance for 5 years (for fixed systems)	Applicable taxes	Units Price inclusive of applicable taxes (A+B+C+D+E)	No. of Units	Total Price (E*F)
1	0.25 hp Solar Pump							8	
2	0.5 hp Solar Pump							10	
3	1 hp Solar Pump							2	
								GRAND TOTAL (Rs)	

**NOTES:**

1. Certified that rates quoted above are as per the requirement, specification terms & condition mentioned in the tender document.

**(Signature of Bidder)  
With seal**

## 7.2 Financial Summary

Table 11: Total Project Cost

S.No.	State	Total Cost without Tax in Rs (A)	Total Taxes in Rs (B)	Total Project Cost with applicable Taxes in Rs (A+B)
1	Jharkhand			
2	Odisha			
3	Assam			
	Total Project Cost (in words)			

## 8 Payment terms and conditions

The payments shall be made as per the following terms and conditions:

- 25% of the total project cost will be paid by beneficiary/farmers directly to the vendor through Demand Draft/Net-banking and bank transfer in advance. FICCI along with its partner organizations (SFI & TRIF) will mobilize the farmers contribution collection and payment to the vendor.
- 35% of the total project cost will be paid by FICCI directly to the vendor after the delivery of material at site as per the technical specification and terms and conditions specified in the tender.
- 30% of the total project cost will be paid by FICCI to the Vendor after installation and commissioning of the solar water pumps along-with the handling over certificate, indicating bill of material and successful commissioning at site duly countersigned by the designated officer and end user.
- Last 10% of the total project cost to be released by FICCI to the Vendor after 12 months of satisfactory operations of the pumps certified by the user farmer.
- FICCI may ask for 'Bank Guaranty' from the vendor if more than 25% advance is asked by the vendor.

## 9 Procedure for Bid Evaluation

- Evaluation of the bid will be jointly carried out by FICCI and GIZ.
- First the Technical bids shall be opened and evaluated.
- The bidders who will qualify in tecno-commercial evaluation will be considered for the financial evaluation.
- The bidders shall be considered techno-commercially qualified if they meet the given "Minimum Eligibility Criteria" as defined in section 3 of the tender document.

S.No.	Criteria	YES/NO
1.	The bidder should be: A Registered Company in India for: supply and installation of - SPV Modules OR Motor-pump Sets OR Solar Pump Controller or A PV System Integrator  -Enclosed copy of registration.	

S.No.	Criteria	YES/NO
2.	The bidder should have: a minimum 3-year average turnover of Rs. 1 Crore.  - Enclosed copy of balance sheet for any 3 consecutive years (2015-16, 2016-17, 2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant.	
3.	Bidder's experience in supply and installation/ commissioning of total number of Solar Water Pumping Systems:  At least 50 numbers of the Solar Photovoltaic Water Pumping Systems (out of which at least 25 numbers should be micro SWP) in the agriculture sector in last 3 years.  -Enclosed copy of Work Orders/completion certificates.	
4.	Bidder should have Test Certificates (at least 1 certificate) for the tendered micro solar water pumping system from a NISE or any NABL empanelled testing lab.  - Enclosed test report/certificate.	
5.	Bidder has not been blacklisted by any Govt. Agency [for not honouring the order after bidding OR not supplying in time OR not providing after sales service:  - Enclosed self-certification.	
6.	The bidder has service centres: At least one centre in any of the proposed state  - Enclosed service centre details.	
7.	The bidder has ISO 9001certification.  -Enclosed Copy of ISO Certificate.	
8.	The bidder should have at least 10 Nos. of technical and well experienced manpower for Installation and after sales service of the systems. - Enclosed list of employees with their technical & experience details	

- The financial bids will be evaluated on '**Total project Cost' inclusive of all taxes (Table no. 11)**. The lowest rate (i.e. L-1) for the project shall be the party to be awarded the contract for all 3 proposed States.
- FICCI reserves the right at the time of awarding the contract to increase or decrease the quantity of goods and locations of supply without any change in price or other terms and conditions.

- The right of final acceptance of the bids is entirely vested with the FICCI who reserves the right to accept or reject, any or all the tenders in full or in parts without assigning any reason whatsoever. There is no obligation on the part of Tender Inviting Authority to communicate with rejected Bidders. After acceptance of the Bid by FICCI, the bidder should have no right to withdraw his tender or claim higher price. FICCI may also reject any bid for reasons such as change in scope of work, new technologies, and lack of anticipated financial resources, court orders, accidents or calamities and other unforeseen circumstances.
- Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.
- Subcontracting is not allowed for the project.

## 10 Conflict of Interest

- The contractor may not become involved in any conflict of interest that relates to the performance of the contract. Conflicts of interest can arise in particular as a result of economic interests, political or national affinities, family or emotional ties or any other ties or common interests. The contractor shall undertake in particular:
  - (a) not to accept any additional remuneration from third parties in connection with the contract.
  - (b) not to accept during the term of the contract other orders where a conflict of interest is to be anticipated due to the nature of the order or due to the contractor's personal or financial connections with a third party unless prior consent has been given by GIZ/FICCI in text form.
  - (c) not to enter into any contracts with natural or legal persons with whom it has personal or financial ties unless GIZ/FICCI has previously agreed to this in written form.
- The contractor shall undertake to disclose without delay to GIZ /FICCI any circumstance that might represent a conflict of interest or which could lead to such. The contractor shall then discuss and agree with GIZ/FICCI any further steps to be taken. If the parties are unable to reach an agreement in such a case and GIZ/FICCI terminates the contract, then the contractor is responsible for the termination.

## 11 Check List

- The following information/documents are to be annexed and flagged by the Bidders along with the BID.

S.N	Annexure No	Particulars	Yes/No, Flag No.
1.	Annexure-I	The bidder should be : A Registered Company in India for: supply and installation of - SPV Modules OR Motor-pump Sets OR Solar Pump Controller or a PV System Integrator Enclosed copy of registration.	
2.	Annexure-II	Copy of balance sheet for any 3 consecutive years (2015-16, 2016-17, 2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant.	
3.	Annexure-III	Copies of work Order/completion certificates showing experience of supplies and satisfactory commissioning of at least 50 numbers of the Solar Photovoltaic Water Pumping Systems (out of which at least 25 numbers should be micro SWP) in the agriculture sector during the last three years.	
4.	Annexure-IV	Copy of Test Certificates (at least 1 certificate) for the tendered micro solar water pumping system from a NISE or any NABL empanelled testing lab.	
5.	Annexure-V	A copy of valid GSTIN certificates	
6.	Annexure-VI	Details of the service centre located in any of the proposed States: -Jharkhand -Odisha -Assam	
7.	Annexure-VII	The details of Technical staff available with the company for execution of work to be given with details of PF return.	
8.	Annexure -VIII	Detailed design/layout of micro SWP system offered	
9.	Annexure-IX	A summarized sheet of cumulative experience in Solar water pump supply and installation along with list of clients	
10.	Annexure-X	Copy of ISO 9001 certification.	
12.	Annexure- XI	Self-declaration of not ever have been Blacklisted/ debarred by any Govt. Deptt.	

\* Please flag the annexure and write flag number in the box.

Note:- Bids received without supporting documents for the various requirements mentioned in the tender document may be rejected.

## 12 Tender Bidding Conditions

The Interested bidders are requested to carefully examine all documents and submit the entire tender proposal as instructed in the tender document. Any deviation/ differentiation from the instruction will lead to disqualification of the tenderer from the bidding process.

### 1. Content of the technical offer

Your bid should contain the following information:

1.1 Detailed working concept in accordance with the terms of reference which allows technical evaluation in terms of the objective of the measure.

This includes:

- a description of the services you plan to provide and the scheduled working methods
- a time schedule, in graph form, for the individual measures you are to implement

1.2 The covering letter of technical proposal must be **duly signed** by the authorized signatory and the letter must provide the following information.

- *Name and designation of – Authorized Signatory*
- Complete address of Company / Firm
- Email id and contact number of the Authorized signatory

1.3 The technical proposal must be submitted in **soft copy in PDF format only**.

**1.4 There should be no price information anywhere in the technical proposal/profile document. Failure to comply will result in disqualification of the bid.**

### 2. Price offer

2.1 The covering letter of financial proposal must be **duly signed** by the authorized signatory and the letter must provide the following information.

- *Name and designation of – Authorized Signatory*
- Complete address of Company / Firm
- Email id and contact number of the Authorized signatory

While providing pricing details, Tenderers should note that unless otherwise specified, prices tendered must:

- be expressed in Indian rupees (INR)
- exclude Govt. taxes. (tax and duty components separately identified).
- remain unalterable for the period of tender validity.
- not vary according to the mode of payment.

2.2 The financial proposal must be submitted in **soft copy in PDF format only**. The template for submitting the financial proposal is given in **section 7**.

### 3. Cost of preparing the bid

No remuneration will be granted for the preparation of the bid and the documents to be attached thereto. The bids, together with the attached documents, shall become the property of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, without entitlement to remuneration.

### 4. Electronic Bid submissions guidelines

4.1 The bid shall be submitted electronically in on one email, containing 2 separate attachments namely:

- Technical proposal
- Financial proposal

4.2 Bidders are requested to clearly specify the title of the Tender, in the email subject line:

***Tender No. FICCI/SWP/2021 - "Survey, Supply, Installation & Commissioning and 5 Years Comprehensive Warranty & Maintenance of Solar Water micro Pumps (0.25-1 hp) for Agriculture and Allied Activities in various districts of Jharkhand, Odisha and Assam"***

4.3 The technical bid along with financial bid are required to be submitted via email only at [PROCUREMENT@FICCI.COM](mailto:PROCUREMENT@FICCI.COM) . No hard copies will be accepted. The last date for submission of bid is 15.07.2021.

4.4 Bids sent to any other email id, apart from [PROCUREMENT@FICCI.COM](mailto:PROCUREMENT@FICCI.COM) shall be immediately disqualified. Any bids/supporting tender documents sent after the tender deadline expiration shall also not be considered for evaluation.

4.5 Bidders are requested to send the technical & financial proposals as separate attachments in pdf format, in a single mail along with all supporting documents in a compressed folder not exceeding file size of 10 MB in total.

4.6 Uploading of bids is prohibited on open sources like google drive, drop box etc. bidders submitting their bids on these platforms shall be *immediately disqualified*.

### 5 Bids/Covering letter must be addressed to:

Sr. Director  
Resource Conservation and Management (RCM)  
FICCI, New Delhi

### 6 Modification/withdrawal of the bid

Adjustments to or withdrawal of bids are to be communicated in writing on email before the deadline for submission of bids.

Subsequent adjustments or modifications to the bid, which can be submitted up to the deadline for submission of bids, shall also be subject to the requirements for sending in the bid given in tender document. The subject line of the e-bid is to be clearly mentioned:



**“Modification/withdrawal of bid (FICCI/SWP/2021) - “Survey, Supply, Installation & Commissioning and 5 Years Comprehensive Warranty & Maintenance of Solar Water micro Pumps (0.25-1 hp) for Agriculture and Allied Activities in various districts of Jharkhand, Odisha and Assam”**

**7 Important notice –**

**Please refrain from making any personal / telephonic / telefax contact on the subject of this tender to any personnel of GIZ India/FICCI.**

We request all the interested bidders to keep checking the respective web portal for any latest and revised information pertaining to this tender.

Information may be updated such as extension of bid submission dates, method of bid submission etc. keeping in view the ongoing COVID - 19 situations and implications.

We look forward to receiving your offers.

**Sr. Director  
Resource Conservation and Management (RCM)  
FICCI, New Delhi**