

TENDER DOCUMENT
FOR
SUPPLY, INSTALLATION & COMMISSIONING OF 0.50 HP SOLAR
PHOTOVOLTAIC DC WATER PUMPING SYSTEM THROUGHOUT THE STATE OF
TRIPURA ON
TURN-KEY BASIS



TRIPURA RENEWABLE ENERGY DEVELOPMENT AGENCY
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Certified that the NIT Document contains 22 (twenty two) pages including this page

SIGNATURE OF THE BIDDER WITH DATE & SEAL


20/1/16



TRIPURA RENEWABLE ENERGY DEVELOPMENT AGENCY

(A Constituent Organization of DSTE, Government of Tripura)

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NIT No.F.6(31)/TREDA/NCES/Pt-III/3459

Date 20/01/2016

NOTICE INVITING TENDER

Sealed tenders are invited only from the bonafied, resourceful and experienced manufacturers or channel partners accredited by the Ministry of New & Renewable Energy (MNRE), Govt. of India for Off-Grid and Decentralized Solar Applications under JNNSM for the work given below:

PNIT No.	Sl. No.	Name of work	Quantity	Cost of tender document	Earnest Money Deposit	Period of completion
No.F.6(31)/TREDA/NCES/Pt-III/3460 dated 20/01/2016.	1.	Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping System with minimum 600 Wp SPV Array Capacity including supply of 1000 liters water reservoir throughout the state of Tripura on turn-key basis with 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules).	100 (one hundred) nos.	Rs. 1000/- (Rupees one thousand) only	2.5% of the total quoted amount	45 (forty five) days

2. The Tender Paper is available & can be downloaded from the State Govt. website named **www.tripura.gov.in** and **www.treda.nic.in** and the same may be submitted after being duly filled in prescribed formats along with all required documents as per NIT.

3. **COST OF TENDER DOCUMENT:** Rs. 1000/- (Rupees one thousand) only in the shape of D-call or Demand Draft (Non-refundable) drawn in favour of "The Director & Chief Executive Officer, Tripura Renewable Energy Development Agency, Agartala" on any Nationalized Bank *having branches at Agartala*.

4. **EARNEST MONEY DEPOSIT:** 2.5% of the total quoted amount *for supply, installation & commissioning of Solar Photovoltaic Water Pumping Systems throughout the state of Tripura on turn-key basis* in the shape of D-call or Demand Draft drawn in favour of "The Director & Chief Executive Officer, Tripura Renewable Energy Development Agency, Agartala" on any Scheduled Bank *having branches at Agartala*. However, Government of India Undertakings will have the option of submitting EMD in the form of bank guarantee on any Nationalized Bank.

5. **2(two) part tender consisting of the following and shall be opened sequentially.**

5.1 TECHNICAL BID:

5.1.1 The Technical Bid would comprise of the following sealed envelopes in a single sealed envelope:

SIGNATURE OF THE BIDDER WITH DATE & SEAL



- 5.1.1.1 Envelop – I: “Technical Bid” as per Annexure – I & Annexure – II superscripting Name of Bidder, name of Work, NIT No, Original due date of opening of Bid alongwith forwarding letter at Annexure - III & all relevant documents mentioned in the NIT.
- 5.1.1.2 Envelop – II: “Cost of tender document” superscripting Name of Bidder, name of Work, NIT No, Original due date of opening of Bid.
- 5.1.1.3 Envelop – III: “Earnest Money Deposit (EMD)” superscripting Name of Bidder, name of Work, NIT No, Original due date of opening of Bid.

5.1.2 The bidding schedule for submission of Technical Bid is given at Annexure – I & Annexure - II. The bidder who’s Technical Bids is found to be acceptable, settled and frozen shall be considered for opening of respective Financial Bids.

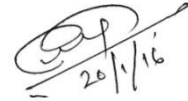
5.2 FINANCIAL BID: In sealed cover duly marked by Envelop-IV superscripting Name of Bidder, name of Work, NIT No., Original due date of opening of Bid.

- 5.2.1 Financial Bid will be opened after acceptance of Technical Bid. The date of opening of Financial Bid will be intimated on the same day when Technical Bid is opened, if possible, or later.
- 5.2.2 The Financial Bid is of two parts, one for “Supply, installation & commissioning of Solar Photovoltaic DC Submersible Water Pumping Systems throughout the state of Tripura on turn-key basis including 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules)” and another for “Supply, installation & commissioning of additional individual components of Solar Photovoltaic Water Pumping Systems throughout the state of Tripura as & when required on turn-key basis” for replacement of components due to broken / damaged / theft etc. which are not covered under Warranty / Guarantee obligations under the contract.
- 5.2.3 The bidding schedule for submission of Financial Bid has been prescribed at **Annexure-V & Annexure - VI**.

Both the Technical Bid & Financial Bid should be wrapped in a sealed single cover superscripting Name of Bidder, name of Work, NIT No, Original due date of opening of Bid etc. should be addressed to the Tendering Authority.

- 6.** The last date of submission of Tender paper and bid document is on **10/02/2016 at 1530 hrs** and it will be opened, if possible, on the same day at **1600 hrs** in the presence of the Tenderer or their authorized representative (one person) having valid authorization letter who may like to be present. In case the day happens to be a holiday, the tenders will be received and opened on the next working day within the specified time.
- 7.** Tender without Cost of tender document & EMD will automatically be rejected.
- 8.** Tenders submitted by post should be sent by **“Registered Post with acknowledgement due”**. These should be posted well in advance to avoid any delay in postal delivery. This office, however, shall not share any liability for postal delay. Tenders received after the due date of submission shall be liable to be rejected. Tenders received within specified time and date shall only be considered.

9. **All pages of the tender document shall be signed and stamped by the tenderer before submission.**
10. The undersigned reserves the right to accept/reject any or all the Tenders or part thereof without assigning any reason thereon.



(B CHAKRABARTI)
Director & CEO

TERMS AND CONDITIONS:

11. DEFINITIONS:

- 11.1 **“Tendering Authority”** shall mean the undersigned i.e. “Director & Chief Executive Officer, Tripura Renewable Energy Development Agency, A constituent organization of Department of Science, Technology & Environment, Govt. of Tripura” with its Head office at Vigyan Bhawan, 2nd Floor, Pandit Nehru Complex, Gorkhabasti, Agartala, West Tripura District.
- 11.2 The **‘Contractor’** shall mean the ***Firm (whose tender has been accepted by TREDA)*** and shall include his legal representatives, successor in interest and assignees.
- 11.3 The **“Contract”** shall mean “Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping Systems throughout the state of Tripura on turn-key basis including 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules)” and shall be valid till the completion of all related works.
- 11.4 **‘TREDA’** shall mean the “Director & Chief Executive Officer or his representative of Tripura Renewable Energy Development Agency, A constituent organization of Department of Science, Technology & Environment, Govt. of Tripura” with its Head office at Vigyan Bhawan, 2nd Floor, Pandit Nehru Complex, Gorkhabasti, Agartala, West Tripura District and shall also include its successors in interest and assignees.

12. ELIGIBILITY CRITERIA:

- 12.1 The bidder must be a Company registered under the Indian Companies Act 1956 and should attain one of the eligibility criteria as given below:
- 12.1.1 Channel Partners accredited by the Ministry of New & Renewable Energy (MNRE), Govt. of India for Off-Grid and Decentralized Solar Applications under JNNSM,
- 12.1.2 In case of SPV System manufacturer, other than Channel Partners accredited by MNRE, the bidder should have been manufactured either SPV Module or SPV Pump or Electronics of SPV Pumping System for at least one audited year & also should have valid Test Certificate / Report of that particular component as per relevant Clause of this NIT and should be used in this work.
- 12.2 *Tenders from any dealer / supplier / agents / business partner of the manufacturer/channel partners or from group of entities (the Consortium) will not be accepted.*
- 12.3 The tenderer should not have been blacklisted or debarred by any Central/ State Government Departments / Undertaking Bodies / Autonomous Bodies / PSUs from carrying out similar business during last three financial years.
- 12.4 Documents in support of eligibility must be enclosed along with the Technical Bid. Offers without satisfying eligibility conditions will be out rightly rejected and no correspondence in this regard will be entertained.



13. CREDENTIALS OF THE BIDDERS:

- 13.1 The bidders themselves must have executed supply, installation & commissioning of DC Submersible SPV Water Pumping Systems in last three Financial Years including the current financial year as on the date of publication of the tender, total quantity of which in the last three financial years including the current financial year as on the date of publication of the tender should be at least 50% of the total quantity mentioned in this NIT total quantity mentioned in this NIT.
- 13.2 A certificate indicating name of the customers, numbers and date of work orders, Costs, Date of completions including the copies of relevant work/supply orders must be enclosed.
- 13.3 Tenderer must produce proof of satisfactory completion against the indicated work/supply orders from the beneficiary organizations.
- 13.4 The proof of experience to be submitted along with the Technical Bid as mentioned above should in the name of the tenderer only.
- 13.5 Experience of any collaborator/sister concern of the tenderer submitted as experience proof of the tenderer will not be accepted.

14. TEST CERTIFICATES: The bidders are required to submit test certificates / reports of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping Systems from one of the MNRE approved / IEC / NABL Accredited Test Laboratories in compliance with latest MNRE Guideline for Water Pumping System. Certificate issued during 2013-14 or later will only be considered as valid. Test certificates issued prior to 2013-14 will not be considered as valid. Alternatively, bidders who have submitted their samples of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping Systems to MNRE approved / IEC / NABL Accredited Test Laboratories for testing during 2015-16 may participate in the tender, but they have to submit the valid Test Report before commencement of supply of materials, but delivery schedule have to be maintained as per Clause No. 16.4 below. Declaration in this regard is to be enclosed with the technical bid.

15. SPECIFICATIONS: General specifications of 0.50 HP SPV DC Submersible Water Pumping System is given at Annexure – IV of this NIT. If there is any left out specification for the SPV Gadgets that shall be as per the latest MNRE Guidelines for off-grid and decentralized solar applications.

16. SUPPLY OF MATERIALS:

- 16.1 **It is a turn-key job** for supply, installation & commissioning etc., as such **no extra payments against any unforeseen items / works required to complete the job will be paid/allowed.**
- 16.2 The manufacturer of the major components of SPV Water Pumping System such as SPV Module and SPV Pump would be specified in the Work Order as per the valid Test Report submitted alongwith the tender. Supply of components other than specified in the Work Order would not be considered.
- 16.3 The successful bidder should be responsible for packing, forwarding, and despatching, insurance and safe delivery of materials and installation & Commissioning including head loading of materials, proper civil works, storage & handling etc. as required at specific site at their quoted price.
- 16.4 Delivery of the complete system at site shall commence not later than 30th day and the work should be completed within 45th day from the date of issue of the work order. The date of issue of the Work Order would be considered as Zero date.
- 16.5 Regarding supply of additional individual components of SPV Water Pumping Systems, if required, separate Work Order specifying the locations would be issued and the component(s) are to be supplied, installed & commissioned within 15 (fifteen) days from the placement of such Work Order.

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17. WARRANTEE/GUARANTEE:

- 17.1 The SPV Pump Sets, electronics, MPPT, Control protections, switchgear and overall workmanship of the SPV Pumping Systems including mechanical structure, electrical works, water piping, water reservoir etc. shall be warranted / Guarantee against manufacturing or design or installation or performance defects for 5 (five) years from the date of commissioning. Materials found damaged during transit / store or during erection shall be replaced by the successful bidder immediately without waiting for settlement of their claim with their Insurance Company.
- 17.2 The Warrantee/Guarantee shall be against breakages, malfunctions, non-fulfillment of guaranteed performance and breakdowns due to manufacturing defects or defects that may arise due to improper operation of electrical or electronics components of the system but do not include physical damages by end users.
- 17.3 PV modules must be warranted for their output wattage, which should not be less than 90% at the end of 10 years, 80% at the end of 25 years from the date of commissioning of the SPV Water Pumping System.
- 17.4 Defective / non-functioning component(s) of SPV Water Pumping Systems including PV module, SPV Pump Set, Electronics, Mechanical Structure, piping etc. shall be repaired / replaced free of cost by the successful bidder within the warranty/guarantee period for proper, sustained & reliable operation of the systems.
- 17.5 The Warrantee/Guarantee will cover all the materials and components involved in the installation & commissioning of the SPV Pumping Systems by the successful bidder under this contract irrespective of the fact whether these have been manufactured by the successful bidder or not. The decision in this regard by TRED A should be final & binding on successful bidder.
- 17.6 During the warranty / guarantee period, TRED A / District Office of DSTE / User reserves the right to cross check the performance of the systems with the minimum performance levels specified at Annexure-IV of this NIT / MNRE Guidelines for off-grid and decentralized solar applications.
- 17.7 In case of any fault, **the fault must be removed within a maximum period of 7 (seventy) days** from the date of receipt of complain from User/TRED A/District Scientific Officers of Deptt. of Science, Technology & Environment either through letter or telephonically. Failing which, TRED A may make the system functional and the actual expenditure incurred for this will be deducted from the balance payment (Security Deposit) due to the successful bidder. The expenditure towards the repairing of the system(s) determined by TRED A should be final & binding on the successful bidder.
- 17.8 In case of any part to be imported from outside the state, the maximum period for repair should not be more than 15 (fifteen) days. In case the successful bidder fails to repair any fault of the systems within 15 days, TRED A may make the system functional and debit the actual expenditure to the party which will be deducted from the balance payment (Security Deposit) due to the successful bidder and the defaulter bidder will be blacklisted. The expenditure towards the repairing of the system(s) determined by TRED A should be final & binding on the successful bidder.

- 17.9 However, under Force Majeure circumstances, penalty can be waived off.
- 17.10 The successful bidder shall train, at its own cost, at least 2(two) personals per site selected by User / TRED A for regular operation of the systems and site wise list of such trained personals alongwith contact details should be submitted to TRED A.
- 17.11 Warrantee/guarantee Card in English is to be supplied. The format of the Warrantee/guarantee Card should be given during placement of Work Order.

18. SCOPE OF MAINTENANCE DURING WARRANTEE/GUARANTEE PERIOD:

- 18.1 The successful bidder should provide 5 (five) years maintenance of the SPV Pumping Systems from the date of commissioning which shall include corrective maintenance as well as routine service visit.
- 18.2 The service personal of the successful bidder shall make routine maintenance visits monthly for the first three months and quarterly thereon till the completion period of warranty / guarantee period. The report in this regard duly signed by representative of the successful bidder, User & respective district Scientific Officer of Deptt. of Science, Technology & Environment are to be submitted to TRED A. Format for submission of such report would be given during placement of Work Order.
- 18.3 The deputed personal shall be in position to check and test all the equipments regularly, so preventive action, if any, could be taken well in advance to save any equipment from damage.
- 18.4 Normal and preventive maintenance of the SPV Pumping Systems such as cleaning of module surface, tightening of all electrical connections, cleaning & greasing of motor pump sets, changing filters etc. are also the duties of the deputed personal during maintenance visits.
- 18.5 During operation and maintenance period of the SPV Pumping Systems, if there is any loss or damage of any component due to mis management or mis handling or due to any other reasons pertaining to the deputed personal, what-so-ever, the successful bidder shall be responsible for immediate replacement or rectification. The damaged component may be repaired or replaced by new component.
- 18.6 The maintenance shall include replacement of any component irrespective of whether the defect was a manufacturing defect or due to wear and tear.
- 18.7 TRED A reserves the right to claim damages and cost for non-fulfillment of warranty / guarantee, apart from forfeiture of Security Deposit in the event of unsatisfactory maintenance.

19. RATE:

- 19.1 The rate quoted in the Financial Bid should be in Indian Rupees and be firm, inclusive of all taxes, duties and other charges including TVAT etc. for the complete systems along with all accessories and fittings-fixing including supply, installation & commissioning of the systems at specified location including 5 (five) years guarantee / warrantee from the date of commissioning of the systems
- 19.2 Break up of quoted price indicating Ex-works cost, cost of transportation / packing, insurance charges, installation & commissioning charges, taxes & duties etc. should be indicated separately as part of total price quoted in the price schedule of the bid for justification of the total price quoted.
- 19.3 The rate should be legible written in English both in figure and in words. In case of any contradictions between the prices mentioned in figures and words, the prices mentioned in words shall be considered final. Also, in case of any arithmetical error in regard to the total amount and individual rates, the individual rates shall be taken as final and the total amount shall be adjusted accordingly.
- 19.4 Rates quoted should be valid for at least **180 (one hundred eighty)** days from the date of opening the tender.

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- 19.5 Rates for the additional individual components (Annexure – VI) of the SPV Water Pumping Systems should be quoted excluding TVAT; prevailing TVAT will be added with the offered rates during placement of Work Order.
- 20. PRICE VARIATION CLAUSE:** Price should be fixed & firm. No price variation will be allowed in case of variation of raw materials cost, transportation etc.
- 21. VALIDITY OF TENDER & FINALIZED RATE:** Once the rates are accepted by TREDA, the rates for supply, installation & commissioning of Solar Photovoltaic Water Pumping Systems would be valid up to the period of completion / extended period of completion of the work or for 1(one) year from the date of issue of the Work Order whichever is later. The rate for the additional individual components of the Water Pumping Systems would be valid for the entire contract period.
- 22. PAYMENT TERMS:**
- 22.1 No advance payment will be made.
- 22.2 The supplier shall prefer bills for 100% payment against the supply, installation & commissioning on successful & satisfactory installation and commissioning of the SPV Water Pumping Systems,
- 22.2.1 Out of which 90% payment will be released after statutory deductions.
- 22.2.2 Balance 10% amount against the supply, installation & commissioning will be retained as security deposit which will be released in phased manner at the rate of 2% per year on prorata basis at the end of each year of the Guarantee / Warranty period on satisfactory performance after statutory deductions.
- 22.3 100 % payment for supply, installation & commissioning of additional individual components of the Water Pumping Systems (as mentioned in Annexure – VI of the NIT) will be release on successful & satisfactory installation and commissioning of the components on specified locations.
- 22.4 All payments will be made through Indian Rupees only through Account Payee Cheque.
- 23. STATUTORY DEDUCTION FROM BILL:** The Income Tax & TVAT etc. as applicable & necessary will be deducted from bill at source as per the then prevailing rate.
- 24. SUBMISSION OF BILLS FOR PAYMENT/SECURITY DEPOSITS AFTER SUCCESSFUL EXECUTION:**
- 24.1 The successful bidder may submit the bills to TREDA or directly to the respective District Scientific Officers of Department of Science, Technology & Environment.
- 24.2 The bills should be accompanied by completion report in respect of installation & commissioning of the SPV Water Pumping Systems etc. duly signed by the concerned authority of user, officer-in-charge of TREDA / Deptt. of Science, Technology & Environment, representative of PRI bodies, as the case may be, along with at least five photographs (hard & soft copy) of each site.
- 24.3 The bills claiming Security Deposit should be accompanied by satisfactory performance report for that particular year in respect of Repair Maintenance / Routine Checkup of the SPV Water Pumping Systems etc. duly signed by the concerned authority of user, officer-in-charge of TREDA / Deptt. of Science, Technology & Environment.
- 24.4 The bills for additional individual components should be accompanied by completion report in respect of supply, installation & commissioning of the components at specified sites duly signed by the concerned authority of user, officer-in-charge of TREDA / Deptt. of Science, Technology & Environment.

- 24.5 Running bills may be considered for payment on completion of at least 20% of the ordered quantity.
- 25. RECEIPT OF PAYMENT:** TREDA will send the payment to the successful bidder by post (Registered with AD) in Indian Rupees through A/C payee cheque only. In case of payment made through Demand Draft, necessary bank commission, if applicable, will be deducted from the bill amount. If successful bidder empowers any other person to receive the payment from the office of TREDA, the person should be empowered by written power of attorney / valid authorization letter. Successful bidder should send money receipt to TREDA against receipt of payment within 15 days from the receipt of payment and failing which further payment / release of security money will remain held up.
- 26. RELEASE OF EARNEST MONEY (EMD):**
- 26.1 Earnest money deposit of the successful bidder will be released on satisfactory operation of the systems for 90 (ninety) days after commissioning of the systems.
- 26.2 EMD of un-successful bidders shall be returned after award of the contract / order to the successful bidder.
- 26.3 The EMD of the successful bidder may be forfeited along with other penal actions as deemed fit by the Tendering Authority if the bidder fails to submit the acceptance of the Work Order within the stipulated period or fails to execute the awarded work within the stipulated period, after acceptance of the Work Order.
- 26.4 If any bidder withdraws his offer after opening Technical Bid before opening of Financial bid or makes any modification in the terms and conditions of the quotation which are not acceptable to the Tendering Authority, 25% of the deposited EMD may be forfeited.
- 26.5 If any bidder withdraws his offer after opening of financial bid and within the period of validity or makes any modification in the terms and conditions of the quotation which are not acceptable to the Tendering Authority, 50% of the deposited EMD may be forfeited.
- 26.6 If submitted document(s) / certificate(s) are found fake, EMD will be forfeited.
- 26.7 The earnest money deposited by the tenderer will not carry an interest.
- 27. RESPONSIBILITY OF STORES DURING TRANSIT/INSTALLATION:** Successful bidder should be solely responsible for stores in transit & installation. Any legal interference of Police / Sales tax / Income tax / Transport / Any other Govt. Agencies will be faced by successful bidder. The transportation delay / non availability of train / truck etc. will never be considered by the tendering authority as reason of delay to supply and naturally no extension of delivery period will be granted on this account.
- 28. LOCAL OFFICE / AGENT FOR INSTALLATION, COMMISSION & AFTER SALES SERVICE DURING WARRANTY / GUARANTEE PERIOD:**
- 28.1 Successful bidder must have authorized technically equipped agents / dealers in Tripura and also at least one in each district of the state where the systems are going to be installed with full support of infrastructure and skilled technical persons for providing after sales services during the warranty / guarantee period.
- 28.2 The successful bidder should have to provide the details of Authorized Agent, the name of proprietor / owner, complete addresses, contact number etc. along with the list of technicians with address and telephonic numbers to the office of the undersigned before commencement of supply of materials.
- 28.3 No retired employees of Tripura Renewable Energy Development Agency/ Department of Science, Technology & Environment, Govt. of Tripura or its constituent bodies within a period of 2(Two) years of retirement from

Government service and the persons having direct or indirect relationship with the employees of Department of Science, Technology & Environment, Tripura Renewable Energy Development Agency or any other constituent bodies of Department of Science, Technology & Environment shall be engaged in this job by the successful bidder. If such type of irregularities is noticed at any point of time during execution of work, the Work Order may be cancelled and penalty also may be imposed as deemed fit by the undersigned.

29. SUPERVISION / EXECUTION OF WORKS: The works should be done as per the direction of Officer – in – charge, Tripura Renewable Energy Development Agency / District Scientific Officers of Deptt. of Science, Technology & Environment.

30. QUANTITY TO BE PROCURED AND SPLITTING AMONG MORE THAN ONE BIDDER:

30.1 The quantity shown in the tender is most tentative and may be increased or decreased by 25% of tendered quantity at the discretion of tendering authority as per the accepted rate, terms & conditions stipulated in the Work Order of successful bidder.

30.2 Tendering authority reserves the right to split the quantity to be procured among two or more qualified bidders at the lowest rate quoted by the bidders or at negotiated rate.

30.3 Quantity of additional individual components would be decided by the Tendering Authority based on the actual requirement of the items, if required, within the contract period.

31. AUTHORITIES TO MAKE CORRESPONDENCE WITH THE BIDDER / CONTRACTOR:

31.1 The Tendering Authority during evaluation of Technical & Financial Bid prior to the placement of Work Order,

31.2 The Tendering Authority or TREDA after placement of Work Order during execution / post execution of work during warranty / guarantee period.

31.3 District Scientific Officers of Department of Science, Technology & Environment, post execution of work during warranty / guarantee period.

32. AMENDMENTS IN TENDER DOCUMENT:

32.1 At any time prior to the due date for submission of the tender, TREDA may for any reason, whether at its own initiative or as a result of a request for clarification / suggestion by a prospective tenderer, amend the tender document by issuing a notice.

32.2 The amendments will be notified on the website at least **5 (five) days** before the last date of submission of the tender. TREDA will bear no responsibility or liability arising out of non-receipt of the information in time or otherwise.

32.3 If any amendment is required to be notified within 5 (five) days of the last date of submission of the tender, the last date of submission shall be extended for a suitable period of time.

33. CLARIFICATIONS ON SUBMITTED TENDER DOCUMENTS:

33.1 During the process of evaluation of the tender, TREDA at its discretion may ask the tenderer for a clarification of his tender either in written or fixing meeting inviting bidders at TREDA Office, Agartala. The request for clarification and the response shall be in writing & in English only.

33.2 Any query regarding any clarification required by TREDA on the information submitted by the tenderer, must be replied by the tenderer within the allowed time schedule.

34. SITE INSPECTION BY THE BIDDERS: The bidders may visit the sites of installation prior to submission of formal bid. They may do so on giving prior intimation to the office of the Tendering Authority.

- 35. PRE-BID MEETING:** A pre-bid meeting may be held at the office of the Tendering Authority on **30th January, 2016** at **3:30 PM**. Interested bidders may confirm their participation within **28th January, 2016**.
- 36. INSPECTION AND TESTING OF MATERIALS:**
- 36.1 Prior to placing formal order, Pre inspection of the manufacturing unit of the bidder eligible for getting the work may be made by the officials of TRED A at the cost and risk of the bidder to assess the capability.
- 36.2 The materials will be dispatched / installed by the successful bidder after inspection by the Director, TRED A or his representative at the bidder's premises or at site and acceptance of the same.
- 36.3 The successful bidder shall provide without any extra charge, all materials, tools, testing equipments, labour and assistance of every kind which the inspecting officer may consider necessary for any test or examination which he may require to be made on the successful bidder's premises or at site.
- 36.4 TRED A can also get the systems tested from any MNRE approved / IEC / NABL Accredited Test centre / laboratory and the expenses shall be borne by the successful bidder.
- 36.5 All the expenses for the inspection of gadgets (At the bidder's premises / manufacturing unit / site) by the TRED A's representatives like TA/DA, boarding and lodging charges will have to be borne by the successful bidder.
- 37. LATE TENDER:** No tender will be accepted after the deadline for submission of tender mentioned in the NIT and such tender will be rejected.
- 38. LEGAL CASE:** All disputes are to be settled within the jurisdiction of Tripura High Court, Agartala.
- 39. GENERAL:**
- 39.1 The sealed envelopes addressed to the Tendering Authority containing the bid document superscripted with **"Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping Systems throughout the state of Tripura on turn-key basis including 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules) with NIT no. & Date, Due date & time etc."** are to be submitted.
- 39.2 No T & P will be supplied from TRED A for successful execution of the work.
- 39.3 Sources of water: Ring well / Mark II/ Kutcha well etc.
- 39.4 Deviation of specifications and Terms & Conditions of NIT may cause for rejection of the offer(s) of bidder(s).
- 39.5 If submitted document(s) / certificate(s) are found fake, appropriate legal actions will be initiated and the bidder will be blacklisted.
- 39.6 The facilities may be extended as per norms to SSI Units registered with NSIC under its single point registration scheme having manufacturing unit at Tripura.
- 39.7 The tender prepared by the tenderer along with all the related documents shall be in English only. Any printed literature furnished by the tenderer may be in another language so long as it is accompanied by an English translation of its pertinent passages. Unit measurements shall be metric in accordance with International system. All correspondence between the tenderer and TRED A shall also be in English.
- 39.8 The tenderer is expected to examine all instructions, terms and conditions, specifications, forms and formats etc. as mentioned in the tender document. Failure to furnish all information required in the tender document or submission of a tender not substantially responsive to the tender document in every respect will be at the tenderer's risk and is likely to result in out-right rejection of the tender.

- 39.9 The copy of the tender document must be signed & stamped with the legal name of the corporation / company by the President / Managing Director / Secretary of the firm or a person duly authorized to bid and should be enclosed with the technical bid of the tender. In case of authorized person, the letter of authorization by written power-of-attorney should be enclosed with the technical bid of the tender. The person or persons signing the tender shall initial all pages of the tender document. The tender shall contain no interlink actions, erasers or overwriting except as necessary to correct the errors made by the tenderer in the preparation of tender. The person or persons signing the tender shall also sign & stamp at all such corrections.
- 39.10 Tender not accompanied with Cost of Tender Document & EMD shall not be accepted.
- 39.11 Copy of Sales Tax / VAT Registration Certificate, PAN Card issued by appropriate authority, Income Tax Return of last three Assessment Years are to be submitted along with the Technical Bid.
- 39.12 Work should be completed within **45 (forty five) days** positively from the date of issuing work order. The date of issue of the Work Order may be considered as the zero date.
- 39.13 The SPV Water Pumping Systems would be installed & commissioned throughout the state of Tripura, but the list of the locations would not be handed over to the bidder in advance. On arrival of the materials in full at Agartala or at the District Offices, the schedule for installation & commissioning of the systems will be finalized and list of locations will be handed over to the supplier for taking up the installation work.
- 39.14 Bidders who have submitted bids against any work of TREDA, became successful bidders but failed to accept the work order issued to them by TREDA within specified time period / failed to execute the works after issue of work orders, should not submit bid against this tender or otherwise their bids will not be accepted.
- 39.15 The Declaration by the Tenderer given at Annexure – II should be submitted in the letterhead alongwith the offer/bid.
40. The above terms and condition will be stipulated in the work order.
41. In case of any ambiguity in interpretation of any of the provisions of this tender, decision of TREDA shall be final & binding on the bidder.
42. The successful tenderer shall be required to convey the acceptance of the Work Order on a valid Non-judicial stamp paper of Rs. 100/- (Rupees one hundred only) for strict compliance of the terms and conditions of the contract vis-à-vis the NIT within 15 (fifteen) days of placement of the work order.
43. **RIGHT TO ACCEPT / REJECT THE BID:** Tendering Authority reserves the right to accept or reject any Bid and to annul the tender process and reject all such bids at any time prior to award of contract, without thereby incurring any liability to the affected applicant(s) or any obligation to inform the affected applicant(s) of the ground for such decision.



(B CHAKRABARTI)
Director & CEO



ANNEXURE - I

TECHNICAL BID

PART-I (a): COMMERCIAL INFORMATION

- 1 Name & complete address of the bidder with telephone, mobile, fax nos. & Email etc.
- 2 Name & designation, e-mail ID, Mobile Number etc. of the authorized signatory to whom reference shall be made
- 3 Present activities/business of the firm
 - i. SPV- Module Manufacturer
 - ii. SPV –Pump Manufacturer
 - iii. SPV –Pump Electronics Manufacturer
 - iv) other activities
- 4 Copy of Sales Tax / VAT Registration Certificate, PAN Card & Service Tax Registration Certificate issued by appropriate authority, Income Tax Return of last three Assessment Years (Attach copy)
- 5 Detail of any existing service network in Tripura, if any (name & address of service centres, year of opening)

Date

Signature of bidder & seal

PART I(b): CHECKLIST FOR TENDERER

- 1 EMD @ 2.5% of the total offered value (Attached/ not attached.)

DD No.	
Date	
Name of the Bank:	
Payable at	

- 2 Copy of valid test Certificates of the 0.50 HP SPV Submersible Water Pumping Systems as per MNRE specification or declaration to submit the same before commencement of supply, attached or not?

	Attached / not attached.
--	--------------------------

SIGNATURE OF THE BIDDER WITH DATE & SEAL



Handwritten signature and date 20/1/16

- 3** List of SPV Water Pumping Systems supplied, installed & commissioned by the bidder in last three financial years including current Financial year as on the date of publication of tender (the list should include the following **alongwith copies of concerned work orders & completion Certificate:**
- (a). Name of Organisation which have awarded the work
(b) Location of work (c) Total contact amount (d) Year of award of work (e) Details of involvement in the work (f) Was the work completed satisfactorily within stipulated time
- 4** Literature/ leaflets on products Attached / not attached
- 5** Declaration by the Tenderer as per Annexure – II of this NIT Attached / Not attached.

Date

Signature of bidder & seal

SIGNATURE OF THE BIDDER WITH DATE & SEAL


20/1/16

PART – II(a) : TECHNICAL INFORMATIONS

SL. No.	Name of the components	Name of the manufacturing company
1	SPV Module (Rating : _____ Wp*) *Mention capacity of individual module to be used in the Array	
2	0.50 HP D.C. Submersible Water Pump	
3	Electronics/BOS of 0.50 HP D.C. Submersible Water Pump	

Date**Signature of bidder & seal****PART-II (b) : INFORMATION ON SOLAR PHOTOVOLTAIC WATER PUMPING SYSTEMS REQUIRED WITH QUANTITY**

Sl. No.	Description of the Items	Quantity
1.	Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping System with minimum 600 Wp SPV Array Capacity including supply of 1000 liters water reservoir throughout the state of Tripura on turn-key basis with 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules).	100 (one hundred) nos.

Date**Signature of bidder & seal**

SIGNATURE OF THE BIDDER WITH DATE & SEAL



20/1/16

ANNEXURE – II

(To be submitted in the official letter head of the company)

DECLARATION BY THE TENDERER

(Regarding Tender Notice No: F.6(31)/TREDA/NCES/Pt-III/3459, dated 20/01/2016)

I/We _____ (hereinafter referred to as the Tenderer) being desirous of tendering for the work under the above mentioned tender and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the tender document, DO HEREBY DECLARE THAT-

- i) The Tenderer is fully aware of all the requirements of the tender document and agrees with all provisions of the tender document.
- ii) The Tenderer is capable of executing and completing the work as required in the tender.
- iii) The Tenderer accepts all risks and responsibilities directly or indirectly connected with the performance of the tender.
- iv) The Tenderer has no collusion with other contractor, any employee of TREDA / Department of Science, Technology & Environment, Govt. of Tripura or its autonomous bodies or with any other person or firm in the preparation of the bid.
- v) The Tenderer has not been influenced by any statement or promises of TREDA / Department of Science, Technology & Environment, Govt. of Tripura or its autonomous bodies or any of its employees but only by the tender document.
- vi) The Tenderer is financially solvent and sound to execute the work.
- vii) The Tenderer is sufficiently experienced and competent to perform the contract to the satisfaction of TREDA.
- viii) The information and the statements submitted with the tender are true.
- ix) The Tenderer is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may effect the work, its performance or personnel employed therein.
- x) The Tenderer has not been debarred / Blacklisted from similar type of work by TREDA and/ or State / Central Government Department / undertaking Bodies during last three financial years.
- xi) This offer shall remain valid for acceptance for 180 days from the date of opening of the tender.
- xii) The Tenderer has attached herewith the earnest money as required in the tender document.
- xiii) The Tenderer accepts that the earnest money be partially / absolutely forfeited by TREDA as per the terms & conditions laid down in this NIT.
- xiv) The Tenderer gives the assurance to execute the tendered work as per specifications, terms and conditions.

(Signature of tenderer)
WITH SEAL & DATE


20/1/16

ANNEXURE - III

(Format for covering letter)

(To be submitted in the official letter head of the company)

Ref. No. _____ Date ____/____/2016

NIT No.F.6(31)/TREDA/NCES/Pt-III/3459, dated 20/01/2016

To
The Director & CEO,
Tripura Renewable Energy Development Agency,
Vigyan Bhawan, P.N. Complex,
Gorkhabasti, Agartala,
West Tripura District.

SUB: Offer in response to the NIT No.F.6(31)/TREDA/NCES/Pt-III/3459, dated 20/01/2016 for Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping Systems throughout the state of Tripura on turn-key basis including 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules).

Sir,

We are submitting our offer in full compliance of the terms & conditions of the above cited NIT. A blank copy of tender duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as all the terms & conditions. We have submitted the cost of tender document & requisite EMD as per NIT terms & conditions.

We confirm that we have the capability to supply, install & commission the systems within the scheduled period.

We confirm that our offered rate would be valid for at least 180 (one hundred eighty) days from the date of opening of tender.

The tender is submitted in two separate envelopes for Technical Bid & Financial Bid alongwith all the relevant documents as per NIT.

Date: ____/____/2016

(Signature of the authorized signatory)

Name:

Designation:

Company Seal:



ANNEXURE - IV**TECHNICAL SPECIFICATIONS OF 0.50 HP DC SUBMERSIBLE SOLAR PHOTOVOLTAIC WATER PUMPING SYSTEM****1 INTRODUCTION:** A SPV Water Pumping System consists of:

- 1.1 PV Array on suitable frame / structure.
- 1.2 Submersible DC Motor Pump Set
- 1.3 Electronics: Maximum Power Point Tracker (MPPT) & Control/ protections
- 1.4 Interconnect cables & “ON-OFF” switch.

2 TECHNICAL SPECIFICATIONS OF SOLAR DC SUBMERSIBLE SYSTEMS:

Motor Capacity	0.50 HP DC submersible with electronic controller
PV Array	Minimum 600 Wp
Water discharge#	Minimum 3000 liter per day from a total head of 100 meters
Module Mounting Structure	Ground / GCI / RCC Roof mounted
Delivery Pipes	½ inch PVC (ISI Marked)
Water reservoir	1000 liters, ISI marked HDPE Tank
#Water discharge figures are on a clear sunny day under the-“Average Daily Solar Radiation” condition of 7.15 KWh/ sq. m. on the surface of PV array (i.e. coplanar with the PV Modules).	

3 PV MODULES:

- 3.1 The SPV water pumping system should be operated with minimum array capacity as given above measured under Standard Test Conditions (STC).
- 3.2 The individual capacity of the SPV Modules should be ranging between 125 Wp to 300 Wp under Standard Test Conditions (STC) and should be connected in appropriate series-parallel combinations to obtain the required PV array power output. Indigenously produced PV module (s) containing mono/ multi crystalline silicon solar cells should be used in the PV array for the SPV Water Pumping systems.
- 3.3 Modules supplied with the SPV Water Pumping System should have certificate as per IEC 61215 specifications or equivalent National or International Standards,
- 3.4 Modules must qualify to IEC 61730 Part I and II for safety qualification testing.
- 3.5 The efficiency of the PV module should be minimum 14% and fill factor should be more than 70%.
- 3.6 The terminal box on the module should have provision for “Opening” for replacing the cable, if required.
- 3.7 Each SPV module should have a RFID tag containing following information inside the module laminate:
 - 3.7.1 Name of the manufacturer of PV Module

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- 3.7.2 Name of the Manufacturer of Solar cells
 - 3.7.3 Month and year of the manufacture (separately for solar cells and module)
 - 3.7.4 Country of origin (separately for solar cells and module)
 - 3.7.5 I-V curve for the module
 - 3.7.6 Peak Wattage, I_m , V_m and FF for the module
 - 3.7.7 Unique Serial No. and Model No. of the module
 - 3.7.8 Date and year of obtaining IEC PV module qualification certificate
 - 3.7.9 Name of the test lab issuing IEC certificate
 - 3.7.10 Other relevant information on traceability of solar cells and module as per ISO 9000 series.
- 3.8 A strip containing the following details **should be laminated** inside the module so as to be clearly visible from the front side:
- 3.8.1 Name of the Manufacturer or distinctive Logo
 - 3.8.2 Model or Type No.
 - 3.8.3 Serial No.
 - 3.8.4 Year of make
 - 3.8.5 TREDA

4 MOTOR PUMP SET:

- 4.1 Type: DC Submersible Water Motor Pump set (Brushless DC) or Permanent Magnet DC (PMDC)
- 4.2 Features:
 - 4.2.1 Mono Block DC centrifugal pump set having driving unit and impeller mounted on a common shaft for giving perfect alignment.
 - 4.2.2 The pump should be provided with specifically developed mechanical seals to ensure zero leakage.
 - 4.2.3 Brush Less DC Motor Pump (B.L.D.C.) or Permanent Magnet DC (PMDC) Set.
 - 4.2.4 The following details should be marked indelibly on the motor pump set:
 - 4.2.4.1 Name of the manufacturer or Distinctive Logo
 - 4.2.4.2 Model Number
 - 4.2.4.3 Serial Number
 - 4.2.4.4 TREDA
- 4.3 The electric cables, floating assembly and other fittings required to install the system are to be provided.
- 4.4 The delivery head will depend on the site requirement.
- 4.5 Delivery Pipe: - ½ inch PVC (ISI Marked).
- 4.6 Water Reservoir: 1000 liters, ISI marked HDPE Tank.

5 MOUNTING STRUCTURE: The PV Module should be mounted on suitable structure as per site requirement.



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6 ELECTRONICS AND PROTECTIONS:

6.1 Maximum Power Point Tracker (MPPT) should be included to optimally use the Solar panel and maximizing the water discharge.

6.2 Adequate protections should be incorporated against dry operation of motor pump set, lightning, hails and storms. Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

7 ON / OFF SWITCH: A good ISI marked reliable switch suitable for DC use is to be provided with the motor pump set. Sufficient length of cable should be provided for inter-connection between the PV array and the motor pump set.

8 BALANCE OF SYSTEM (BOS) ITEMS / COMPONENTS: The BoS items / components of the SPV Water Pumping Systems must conform to the latest edition of IEC or equivalent BIS Standards/ MNRE specifications as specified below:

BoS Items / Components	IEC/Equivalent BIS standard	
	Standard Description	Standard Number
Controller including MPPT & Protections	Efficiency measurements Environmental Testing	IEC 61683/IS 61683 IEC 60068 - 2 (1,2,14,30)/Equivalent BIS Std.
Cables	General Test and Measuring Method insulated PVC cables for working voltage up to and including 1100 volt UV resistant for outdoor installation.	IEC 60227/IS 694 IEC 60502/IS 1554 (Part - I & II).
Switches/Circuit Breaker /Connectors	General requirements Connectors safety DC	IEC 60947 Part I,II,III IS 60947 Part I,II,III EN 50521
Junction Boxes / Enclosures of Electronics	General requirements	IP 54 (For outdoor) as per IEC 529.

9 OPERATION AND MAINTENANCE MANUAL:

9.1 An operation & maintenance manual, in English and local language should be provided with the solar PV pumping system.

9.2 The Manual should have information about solar energy, photovoltaic, modules, Dc motor pump set, tracking system, mounting structure, electronics and switches. It should also have clear instructions about mounting of PV module, DO's and DON'T's and on regular maintenance and trouble shooting of the pumping system.

9.3 A Warranty Card for the modules and the motor pump set should be provided to the beneficiary.

9.4 Name & address of the contact person or Centre to be contacted in case of failure or complaint should also be provided.



ANNEXURE – V**RATE QUOTATION SHEET [BOQ (Bill of Quantity)]****Tender Inviting Authority:** Director & Chief Executive Officer, TREDA.**Name of Item:** Supply, installation & commissioning of Solar Photovoltaic DC Submersible Water Pumping Systems throughout the state of Tripura on turn-key basis including 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules) (As per specification of NIT).**NIT:** No.F.6(31)/TREDA/NCES/Pt-III/3459, dated 20/01/2016.**Bidder Name:**

Sl. No.	Item	Quantity	Rate with details breakup	Amount
1.	Supply, installation & commissioning of 0.50 HP Solar Photovoltaic DC Submersible Water Pumping System with minimum 600 Wp SPV Array Capacity including supply of 1000 liters water reservoir throughout the state of Tripura on turn-key basis with 5 (five) years Warranty / Guarantee (25 years Warranty / Guarantee for SPV Modules).	100 (one hundred) nos.		

Date**Signature of bidder & seal**

SIGNATURE OF THE BIDDER WITH DATE & SEAL



Annexure – VI**RATE QUOTATION SHEET****Tender Inviting Authority:** Director & Chief Executive Officer, TREDA.**Name of Item:** Supply, installation & commissioning of additional individual components of Solar Photovoltaic Water Pumping Systems throughout the state of Tripura as & when required on turn-key basis (As per specification of NIT).**NIT:** No.F.6(31)/TREDA/NCES/Pt-III/3459, dated 20/01/2016.**Bidder Name:**

Sl. No.	Item	UOM	Unit Rate excluding TVAT
1	SPV Module (_____ Wp)	No.	
2	0.50 HP, DC Submersible Water Motor Pump	No.	
3	Controller for 0.50 HP DC SPV Submersible Water Pumping System	No.	
4	Interconnect cables for 0.50 HP DC SPV Submersible Water Pumping System	Meter	
5	“ON-OFF” switch for 0.50 HP DC SPV Submersible Water Pumping System	No.	

Date**Signature of bidder & seal**

SIGNATURE OF THE BIDDER WITH DATE & SEAL


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