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# AGENCY FOR NEW & RENEWABLE ENERGY RESEARCH AND TECHNOLOGY (ANERT)

Department of Power, Government of Kerala Thiruvananthapuram, Kerala – 695 033; <u>www.anert.gov.in</u> , <u>projects@anert.in</u>

# **E-TENDER DOCUMENT**

Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District

Ref. No.: ANERT-TSR/16/2022-DE(TSR)

# **PART 1 – GENERAL CONDITIONS**

Date of Publishing of Bids	:-	10/10/2023
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Last Date of Submission of Bids  $= \frac{20}{10}/2023$ 

Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District

I/18374/2023

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Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District

# FORMAT FOR COVERING LETTER

(This letter to be submitted on the official letter head of the tenderer, signed by the authorised signatory.)

Sir,

I/We hereby submit the tender to *Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District* under annexed terms and conditions of contract, the whole of the articles referred to and described in the attached specification and quantity decided by the Agency for New & Renewable Energy Research and Technology (ANERT), at the rates quoted for all. The articles will be delivered and installed/commissioned within the time and at the places specified in the schedule.

I am/We are remitting herewith the required amount of Rs. ..... towards the cost of tender and Earnest Money Deposit by electronic payment vide transaction No ...... dtd.....

Yours faithfully,

Place:

Date:

Signature Name Designation

(Office Seal)

Page 1 of 35 Design, Supply, Installation, Testing and Commissioning of Standalone Solar Pump with 5 years warranty at different Govt. Agricultural farms in Thrissur District

# **E- TENDER NOTICE**

Competitive e-tenders in two cover system with Earnest Money Deposit (EMD) and Price Bid in accordance with the ANERT approved technical specifications are invited from *Solar OEMs / EPCs* for the *Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District*. The e-tender documents can be downloaded from the e-tendering website of Govt. of Kerala. Tender form will not be available in any other form.

Thiruvananthapuram

**C E O ANERT** 

10/10/2023

# **TENDER ABSTRACT**

Ref. No.	ANERT-TSR/16/2022-DE(TSR)
Name of Work	Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District
Last date of submission of Tender	20/10/2023 @ 3.00 PM
Date and Time of opening the Tender	20/10/2023 @ 4.00 PM
Estimated Tender Value	Rs.16,36,000/-
Cost of Tender form	Rs. 2,950/- (Incl. GST)
EMD	Rs. 40,900/-
Location of Sites	Different locations at Government Agricultural farms at Thrissur District
Availability of Tender Forms	Website <u>http://www.etenders.kerala.gov.in</u>
Place of opening of tender	Office of CEO, ANERT Law College Road, Vikas Bhavan. PO, Th Website <u>http://www.etenders.kerala.gov.in</u> iruvananthap uram – 695 033, Kerala Shri. Priyesh K V District Engineer, ANERT District office,
Contact details for clarification	Thrissur, +91 9188119408; <u>thrissur@anert.in</u>
Thiruvananthapuram	Sd/- CEO

10/10/2023

Page **3** of **35** Design, Supply, Installation, Testing and Commissioning of Standalone Solar Pump with 5 years warranty at different Govt. Agricultural farms in Thrissur District

#### **GENERAL TERMS AND CONDITIONS FOR E-PROCUREMENT**

This e-Tender is being published for the Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District. The tender is invited in two cover system through e-procurement portal of Government of Kerala(www.etenders.kerala.gov.in). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal.

The tender timeline is available in the critical date section of this tender published in <u>www.etenders.kerala.gov.in</u>

#### 1. ONLINE BIDDER REGISTRATION PROCESS:

- 1.1 Bidders should have a Class III or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on <u>www.cca.gov.in</u>. Once, the DSC is obtained, bidders have to register on <u>www.etenders.kerala.gov.in</u> website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.
- 1.2 Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471- 2577088, 2577188, 2577388 or 0484 – 2336006, 2332262 - through email: <u>helpetender@gmail.com/etendershelp@kerala.gov.in</u> for assistance in this regard

#### **2. ONLINE TENDER PROCESS:**

The tender process shall consist of the following stages:

- i. Downloading of tender document: Tender document will be available for free download on <u>www.etenders.kerala.gov.in</u>. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document.
- ii. Pre-bid meeting: (not applicable).
- iii. Publishing of Corrigendum: All corrigenda shall be published on <u>www.etenders.ker-</u> <u>ala.gov.in</u> and shall not be available elsewhere.
- iv. Bid submission: Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on <u>www.etenders.ker-</u>

I/18374/2023

<u>ala.gov.in</u>. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.

- v. In case bidder encounters any technical issues pertaining to e-Procurement system while acting on the tender, computer screen shot of the error message with date & time stamp on the web-browser along with the query shall be e-mailed by the bidder to the help desk (helpetender@gmail.com/ etendershelp@kerala.gov.in), for resolution of the problem. At the same time, problem must be intimated to the concerned Tender Inviting Authority via email.
- vi. The time taken to ascertain, evaluate and suggest a solution for the problem reported by bidder may vary from case to case. Hence bidders are advised to submit the bid at least 2 working days before the due date and time of bid submission to avoid any last-minute issues that may come up.
- vii. Opening of Bid and Bidder short-listing: The single cover bids will be opened, evaluated and shortlisted as per the eligibility. Failure to submit the required documents online will attract disqualification. Price bids of the eligible bidder's will open the same day of opening and the work will be awarded.

# **3. DOCUMENTS COMPRISING BID:**

3.1 (a) The First Stage - Part-I Pre- Qualification cum Technical Bid with Commercial terms without Price Bid

Technical proposal shall contain the scanned copies of the following documents which every bidder has to upload:

Envelop -1 shall contain, Part-I (this document in PDF form)/scanned copies of:

- i. Tender documents downloaded (signed with office seal)
- ii. Summary of Bid qualification requirement (AnnexureA)
- iii. Agreement in the prescribed format (Annexure C) on Govt. of Kerala stamp paper worth Rs.200/-
- iv. Copy of Registration Certificate of the bidder firm
- v. Copy of GST Certificate
- vi. Copy of PAN card
- vii. Details of credit rating done, to prove the experience in executing similar orders
- viii. Bill of Material

- I/18374/2023
- ix. Details of the technical offer, including test certificates issued in the name of the bidder
- x. Declaration by the bidder (format as in Annexure D)
- xi. Declaration of relationship with ANERT employee (format as in Annexure E)
- 3.1 (b)The Second Stage (Financial Cover as per two cover system):

**Envelop -2:** shall contain the Price Schedule as per BOQ in Excel format for this tender to be downloaded from e-tender website, duly digitally signed by the tenderer/authorized signatory of the tender.

- 3.2 The department doesn't take any responsibility for any technical snag or failure that has taken place during document upload.
- 3.3 The Bidder shall complete the Price bid as per format given for download along with this tender.
  - <u>Note</u>: The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website.
- 3.4 Fixed price: Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/ variable price quotation will be treated as non - responsive and rejected.

# 4. SUBMISSION PROCESS:

- 4.1 For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and Financial bid online on <u>www.etenders.kerala.gov.in</u> along with online payment of tender document fees and EMD.
- 4.2 For page-by-page instructions on bid submission process, please visit <u>www.etender-</u> <u>s.kerala.gov.in</u> and click "Bidders Manual Kit" link on the home page.
- 4.3 It is necessary to click on "Freeze bid" link/ icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during bid opening process.

# 5. VALIDITY

5.1 The tender offer shall be kept valid for acceptance for a period of 6 months from the date of opening of offers. The offers with lower validity period are liable for rejection. Further, the tenderer may extend the validity of the Bids without altering the substance and prices of their Bid for further periods, if so required

## 6. **DEVIATIONS**

6.1 The offers of the Tenderers with Deviations in Commercial terms and Technical Terms of the Tender Document are liable for rejection.

# 7. BLACK LIST

7.1 All the intending tenderers shall agree that in the event of the documents furnished with the offer being found to be bogus or the documents contain false particulars, they shall be blacklisted for future tenders/ association with ANERT and EMD shall be forfeited against any losses incurred by ANERT.

## 8. BIDDER'S LOCATION

- 8.1 The tenderers are requested to furnish the exact location of their factories/godown with detailed postal address and pin code, telephone and fax nos. etc. In their tenders to arrange inspection by ANERT, if considered necessary.
- 8.2 All communication shall be made to the registered email of the bidder in the e-tendering systems and ANERT shall not be responsible for non-receipt or delay of any such communication.

# 9. CORRUPT AND FRAUDULENT PRACTICES

ANERT requires compliance with its policy in regard to corrupt and fraudulent/prohibited practices as set forth in this proposal. In further pursuance of this policy, the selected service Provider(s) shall permit ANERT or its representatives to inspect the accounts, records and other documents relating to the submission of the Proposal and execution of the contract, in case of award, and to have the records inspected by ANERT.

#### **10.CONFLICT OF INTEREST**

i. The service Provider(s) is required to provide professional, objective, and impartial services, at all times holding ANERT"s interests paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work. The supplier has an obligation to disclose to ANERT any situation of actual or potential conflict that impacts its capacity to serve the best interest of ANERT. Failure to disclose such situations may lead to the disqualification of the supplier or the termination of its Contract and/or sanctions by the Government.

ii. Relationship with the ANERT staff: a service Provider (including its subsidiaries /partners) that has a close business or family relationship with a professional staff of the AN-ERT who are directly or indirectly involved in any part of the preparation of this document, the selection process for the Contract, or the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to ANERT throughout the selection process and the execution of the Contract. Any other types of conflicting relationships as indicated in the Tender

# **11.CONFIDENTIALITY**

- i. From the time the Proposals are opened to the time the Contract is awarded, the agency (ies) should not contact any of the officials of ANERT on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to the agency (ies) who submitted the Proposals or to any other party not officially concerned with the process, until the publication of the Contract award information.
- ii. Any attempt by the agency (ies) or anyone on behalf of the Suppliers to influence improperly ANERT in the evaluation of the Proposals or Contract award decisions may result in the rejection of its Proposal and may be subject to the application of prevailing Government sanctions procedures.
- iii. Notwithstanding the above provisions, from the time of the Proposals" opening to the time of Contract award publication, if aagency (ies) intends to contact ANERT on any matter related to the selection process, it should do so only in writing.
- iv. The Bids should be submitted only through the e-tender portal <u>www.etenders.ker-ala.gov.in</u>. Agency (ies) shall upload all the necessary documents in the e tender portal before the last date & time for online submission. Proposal received after the submis-

sion deadline will be treated as non-responsive and will be excluded from further evaluation process.

- v. Proposals must be direct, concise, and complete. ANERT will evaluate bidder's proposal based on its clarity and the directness of its response to the requirements of the project as outlined in this tender document. Bidders shall furnish the required information on their technical and financial proposals in the enclosed formats only. Any deviations in format or if the proper information is not provided properly, the tender will be liable for rejection. Tender Evaluation committee may seek clarification, if required, while evaluating the proposal.
- vi. The technical bid opening date, time and the address are as stated in the tender document. The Financial Proposal shall remain securely stored online till the technical evaluation is completed and the results intimated to all successful bidders

#### **12.APPLICABLE LAW**

The work order shall be governed by the laws and procedures established by Government of Kerala, within the frame work of applicable legislation and enactment made from time to time concerning such commercial dealings. Any default in the terms and conditions of the document by the service provider will lead to rejection of work order.

#### **13.AMENDMENT OF TENDER DOCUMENT**

At any time prior to the deadline for submission of the tender, ANERT may for any reason, modify the tender document. The amendment document/ corrigendum shall be notified through the website www.etenders.kerala.gov.in and such amendments shall be binding on all the bidders.

#### **14.COMMENCEMENT OF SERVICE**

The successful bidder should sign the contract agreement within 7 days of issue of work order. The successful bidder should start the services as defined in the scope of work within 15 days of Issue of work order.

#### **15.GOVERNMENT OF KERALA – CORRUPT AND FRAUDULENT PRACTICES**

ANERT follows the policy of the Government of Kerala for anti-corruption and fraudulent practices to maintain sound procurement principles of open competition, economy and efficiency, transparency, and fairness. ANERT requires the agency (ies) to observe the following Government manuals (amended from time-to-time) during the selection process and

in execution of such contracts The Kerala Financial Code (KFC), 2008 (7th Edition, 1st Edition was in 1963), The Stores Purchase Manual (SPM), 2013.

#### **BID QUALIFICATION REQUIREMENTS**

#### **16.BID QUALIFICATION REQUIREMENTS**

- 16.1 Every tenderer should submit along with his e-tender an Earnest Money Deposit (EMD). This may be done electronically from any of the Nationalized/Schedule Banks. The EMD of the disqualified tenderers will be returned automatically through e-procurement system. The EMD of the successful tenderers may be adjusted towards the security deposit. No interest shall be paid for the earnest money deposited.
- 16.2 An agreement in Rs.200/- Kerala stamp paper as per the format given in Annexure IC must be submitted along with e-tender document.
- 16.3 The bidder must use PV modules listed in the ALMM list issued by MNRE from time to time. A detailed BoM in the letter head of the bidder is to be provided along with the bid.
- 16.4 The bidder should have service centres/authorised service providers in Thrissur district of Kerala. Detailed list with address, contact details and proof has to be submitted. If the bidder does not have such facility at the time of tendering, an undertaking should be submitted along with the tender on Kerala stamp paper worth Rs. 200/- agreeing to set up such facility and intimate the same within 15 days of letter of intent.
- 16.5 Price Bid in excel format, for this tender to be downloaded from e-tender website, duly digitally signed by the tenderer/authorized signatory of the tender.

#### **17. Eligibility Requirement**

17.1 The detail of eligibility requirements is provided in the table below. The bidders are required to furnish the required supporting documents along with the Technical Bid.

I	S. No.	Criteria	Documents Required
	1.1	The Bidder must have the required GS	C Copy of GST registration certificate with
		Registration	legible GSTIN.
	1.2	The Bidder must have valid PAN Number	Copy of Pan Card

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1.3	The bidder must have completed Solar Installations of at least 100 kW in Kerala.	Statutory Documents substantiating this requirement along with Documents.
1.4	The bidder should be having unblemished record and must not be blacklisted or declared ineligible for corrupt & fraudulent practices by "any state/ central government" department/ company / entity" as on date of bid opening.	

#### **CONDITIONS OF CONTRACT**

#### **18.GENERAL CONDITIONS**

- 18.1. The tenders should be submitted online at <u>www.etenders.kerala.gov.in</u>
- 18.2. The tender document should be as per the prescribed form which should be downloaded from the e-tender website.
- 18.3. Intending tenderers should submit their tenders on or before the due date and time mentioned in the tender abstract.
- 18.4. The rates quoted should be only in Indian currency. Tenders in any other currency are liable to rejection. The rates quoted should be for the unit specified in the schedule attached.
- 18.5. Tenders subject to conditions will not be considered. They are liable to be rejected on that sole ground.
- 18.6. The final acceptance/rejection of the tenders rests entirely with CEO, ANERT who do not bind themselves to accept the lowest or any tender.
- 18.7. The successful tenderer should be prepared to guarantee satisfactory performance for a period of guarantee under a definite penalty.Communication of acceptance of the e-tender normally constitutes a concluded contract. Nevertheless, the successful tenderer shall also execute an agreement for the due fulfilment of the contract within the period to be specified in the letter of acceptance. The contractor shall have to pay all stamp duty, Lawyer's charges and other expenses incidental to the execution of the agreement. Failure to execute the agreement within the period specified will entail the penalties set out below:
  - a) The successful tenderer shall before sign the agreement and within the period specified in the letter of acceptance of his tender, deposit a sum equivalent to 3% of the value of the contract as security for the satisfactory fulfilment of the contract less the amount of money deposited by him along with his tender. The amount of security may be deposited in the manner prescribed to be specified in the work order issued by ANERT.
  - b) There will be no exemption for MSE's in depositing this security amount. If the successful tenderer fails to deposit the security and execute the agreement as stated

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above, the earnest money deposited by him will be forfeited to ANERT and contract arranged elsewhere at the defaulter's risk and any loss incurred by ANERT on account of the purchase will be recovered from the defaulter who will however not be entitled to any gain accruing thereby.

- c) In cases where a successful tenderer, after having made partial works, fails to fulfil the contracts in full, all or any of the materials not supplied may at the discretion of the Purchasing Officer be purchased by means of another tender/quotation or by negotiation or from the next higher tenderer who had offered to supply already, and the loss if any caused to ANERT shall thereby together with such sums as may be fixed by ANERT towards damages be recovered from the defaulting tenderer.
- d) If the contractor fails to deliver all or any of the stores or perform the service within the time/period(s) specified in the contract, the purchaser shall without prejudice to its other remedies under the contract, deduct from the contract prices, as liquidated damages, a sum equivalent to 0.5 % of the delivered price of the delayed stores or unperformed services for each week of delay until actual delivery or performance, up to a maximum deduction of 10% of the contract price of the delayed stores and services. Once the maximum is reached, the purchaser may consider termination of the contract at the risk and cost of the contractor.
- 18.8. The Security deposit shall, subject to the conditions specified herein be returned to the contractor within three months after the expiration of the contract but in the event of any dispute arising between ANERT and the contractor, ANERT shall be entitled to deduct out of the deposits or the balance thereof, until such dispute is determined the amount of such damages, costs, charges and expenses as may be claimed. The same may also be deducted from any other sum which may be due at any time from ANERT to the contractor. In all cases where there are guarantee for the goods supplied, the security deposit will be released only after the expiry of the guarantee period.
- 18.9. (a) All payments to the contractors will be made in due course by ANERT

(b) All incidental expenses incurred by ANERT for making payments outside the State in which the claim arises shall be borne by the contractor.

- 18.10. Payments will be made only after the supply, Installation and Commissioning of the items and certification by the competent Technical personnel of ANERT.
- 18.11. The contractor shall not assign or make over the contract on the benefits or burdens thereof to any other person or body corporate. The contractor shall not underlet or sub-

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let to any person or persons or body corporate the execution of the contract or any part thereof without the consent in writing of the purchasing officer who shall have absolute power to refuse such consent or to rescind such consent (if given) at any time if he is not satisfied with the manner in which the contract is being executed and no allowance or compensation shall be made to the contractor or the subcontractor upon such rescission. Provided always that if such consent be given at any time, the contractor shall not be relieved from any obligation, duty or responsibility under this contract.

- 18.12. In case the contractor becomes insolvent or goes into liquidation, or makes or proposes to make any assignment for the benefit of his creditors or proposes any composition with his creditors for the settlement of his debts, carries on his business or the contract under inspection or behalf of or his creditors or in case any receiving order(s) for the administration of his estate are made against him or in case the contractor shall commit any act of insolvency or in case in which under any clause or clauses any act of insolvency or in case in which under any clause(s) of this contract the contractor shall have rendered himself liable to damages amounting to the whole of his security deposits, the contract shall, thereupon, after notice given by the Purchasing Officer to the contractor, be determined and ANERT may complete the contract in such time and manner and by such persons as ANERT shall think fit. But such determination of the contract shall be without any prejudice to any right or remedy of ANERT against the contractor or his sureties in respect of any breach of contract committed by the contractor. All expenses and damages caused to ANERT by any breach of contract by the contractor shall be paid by the contractor to ANERT and may be recovered from him under the provisions of the Revenue Recovery Act in force in the State.
- 18.13. In case the contractor fails to supply and deliver any of the said articles and things or the works within the time provided for delivery of the same, or in case the contractor commits any breach of any of the covenants, stipulations and agreements herein contained, and on his part to be observed and performed, then and in any such case, it shall be lawful for ANERT (if they shall think fit to do so) to arrange for the purchase of the said articles and things from elsewhere of on behalf of ANERT by an order in writing under *the* hand of the CEO put an end to this contract and in case ANERT shall have incurred sustained or been put to any costs, damages or expenses by reason of such purchase or by reason of this contract having been so put an end to or in case any difference in price, compensation, loss, costs, damages, expenses or other moneys shall then or any time during the continuance of this contract be payable by the contractor to ANERT under

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and by virtue of this contract, it shall be lawful for ANERT from and out of any moneys for the time being payable or owing to the contractor from ANERT under or by virtue of this contract or otherwise to pay and reimburse to ANERT all such costs, damages and expenses they may have sustained, incurred or been put to by reason of the purchase made elsewhere or by reason of this contract having been so put an end to as aforesaid and also all such difference in price, compensation, loss, costs, damages, expenses and other moneys as shall for the time being payable by the contractor aforesaid.

- 18.14. Any sum of money due and payable to the contractor (including security deposit returnable to him) under this contract may be appropriated by the CEO or any other person authorised by ANERT and set off against any claim of ANERT for the payment of a sum of money arising out of or under any other contract made by the contractor with ANERT or any other person authorised by ANERT. Any sum of money due and payable to the successful tenderer or contractor from ANERT shall be adjusted against any sum of money due to ANERT from him under any other contracts.
- 18.15. Every notice hereby required or authorised to be given may be either given to the contractor personally or left at his residence or last known place of abode or business, or may be handed over to his agent personally, or may be addressed to the contractor by post at his usual or last known place of abode or business and if so addressed and posted, shall be deemed to have been served on the contractor on the date on which in the ordinary course of post, a letter so addressed and posted would reach his place of abode or business.
- 18.16. The tenderer shall undertake the installation and commissioning of the system according to the standards and specification.
- 18.17. No representation for enhancement of rate once accepted will be considered.
- 18.18. The prices quoted should be inclusive of GST and all other expenses which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery during the course of execution of the contract.
- 18.19. Special conditions, if any, of the tenderers attached with the tenders will not be applicable to the contract unless they are expressly accepted in writing by the purchaser.
- 18.20. The tenderer should send along with this tender an agreement executed and signed in Kerala Stamp Paper of value Rs.200/-. A specimen form of agreement is given as Annexure IC to this tender. Tenders without the agreement in stamped paper will be rejected outright.

- 18.21. Conditions in the technical document, technical specifications and special conditions of this tender document would override these general conditions, wherever applicable.
- 18.22. ANERT, by notice sent to the Supplier, may terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for ANERT's convenience, the extent to which performance of the Supplier under the contract is terminated, and the date upon which such termination becomes effective.
- 18.23. E-tender shall be opened at the time and date announced in the tender notice, and the pricebid will be evaluated on the same day.
- 18.24. In case any difference or dispute arises in connection with the contract, all legal proceedings relating to the matter shall be instituted in the Court within whose jurisdiction the CEO, ANERT voluntarily resides.
- 18.25. The Courts situated at the place where the headquarters of ANERT is situated viz, Thiruvananthapuram alone will have jurisdiction to entertain civil suits and all other legal pertaining to this contract.

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#### **19. SPECIAL CONDITIONS**

- a) Each bidder should submit only one (1) bid. Any bidder who submits/participates in more than one bid for the work shall be disqualified.
- b) The tenders will be opened in the presence of bidders present at the date and time advised in the Bidding Document. If the due date for receiving and opening the tender happens to be declared holiday, then the tender will be received and opened on the very next day, for which no prior intimation will be given.
- c) If the bidder has NOT submitted the requisite EMD OR Agreement, OR if the price bid is not submitted along with the tender, such tenders will be summarily rejected.
- d) During the tender evaluation, ANERT may seek more clarifications/details from any or all of the tenderers, if felt necessary.
- e) The price bids of the tenderers, which submitted the required documents only, will be opened and the L1 bidder will be awarded the work of supply and installation of items after fulfilling all the requirements.
- f) ANERT reserves the right, in the interest of completion of work within the time limit, to award portion/portions of the Work order to next higher bidders, called for negotiation in the increasing order of their price offers, if they agree to supply at the L1 price
- g) The rate quoted should be all inclusive including delivery of materials at the locations to be specified, and the cost of materials and labour for the civil works, installation and commissioning, warranties, insurances and all other expenses.
- h) The price quotes should be inclusive of initial cost of supply, installation and commissioning, support during the warranty period of 5-years.
- i) The tender offer shall be kept valid for acceptance for a period of 1 month from the date of opening of bid. The offers with lower validity period are liable for rejection.
- j) The evaluation of the price bid will be based on the grand total of all-inclusive amount quoted.

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k) The bidder should complete the work mentioned in the Tender document.

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#### **SCOPE OF THE WORK**

#### 20. SCOPE OF WORK

The Scope of works are as below:

- a) Design, Supply, Installation, Testing and Commissioning of standalone solar pump set (Submersible type) with five-year warranty is required to be installed.
- b) All the feasibility study, necessary civil work, Mounting of Module Structures as per site condition, PV Module Installation, DC Cabling and interconnections, Installation of Lightning Arresters and Earthing System as per the standards, arranging all the necessary inspections if any as part of Pre-Commissioning, Commissioning of the PV Power Plant are coming under the scope of the bidder.
- c) It is mandatory that the bidders are to visit the sites and quote the rates considering all the requirements as mentioned in this tender document. No requests for revision of rates will be entertained. In case, the successful bidder is not undertaking the specific work, the work will be cancelled and disciplinary proceedings will be initiated against the bidder and all payments due will be withheld. Hence, Bidders are requested to visit the site before quoting and the rate for successful commissioning in all aspects is to be quoted.
- d) The rate quoted should be all inclusive including delivery of materials, the cost of materials and labour for the civil works, Installation and Commissioning,5-yearWarranty, Operation and Maintenance of the Power plant for the whole period of warranty, Insurance, GST and all other expenses deemed necessary for the proper implementation of the conditions and specification incorporated in the tender.
- **e)** The Component wise split up of the costs in percentage for each capacity is to be included as part of the technical bid (included as format A).
- f) Any other work required for the successful commissioning of the power plant which are not mentioned in this document and are required as per prevailing laws & regulations in the country.

# 21. SCHEDULE OF SUPPLY

**a)** The items should be delivered and installed at the location for which work order shall be given and specified by ANERT, under prior intimation and supervision of ANERT.

### b) Prior site visit recommended before quoting price bid.

- c) The successful bidder should complete the Supply, Installation, Testing and Commissioning of individual Solar Power Plants as mentioned below:
  - i) District Agricultural Farm Chelakkara, Thrissur
  - ii) State seed farm, Pananchery, Thrissur
  - iii) State seed farm, Kodassery, Thrissur
  - iv) State seed farm, Pazhayannur, thrissur
  - v) Model horticultural farm, Kannara, Thrissur
  - vi) State seed farm Mannuthy, Thrissur

The solar mounting structure, its material and its anchoring should be designed and approved by a chartered Structural Engineer and the certificate and report regarding the same should be supplied to ANERT before work order allocation. The construction of solar plant should not cause leakage of stability issue for the building or its parts under any circumstance. Lighting protection for the plant must be given after proper study and design of the same. The bidder must conduct site study regarding the site dimensions, shade free area, AC DC cable length, Mounting structure height, Lightning protection and allied works and on all aspects to ensure implementation of Solar pump as per tender. Bidder should also provide necessary permanent arrangement for water to clean of solar panels during service and maintenance.

- d) The supply and installation shall be completed within 45 days from the date of work order.
- e) For any delay in Installation and Commissioning beyond the period mentioned above, the ANERT will charge penalty of 0.5% of the order value/week or part thereof, subject to the cost not exceeding 10% of the total cost.

- **f)** Order will be cancelled if the delay of service is more than this time period and work will be issued to the second successful bidder.
- **g)** It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Further, inverters/controllers and the Balance of System should also be manufactured indigenously. The contractor has to declare the list of imported components used in the solarisation system.
- h) The tenderer should use the PV modules available in the ALMM list issued by MNRE from time to time.
- i) The successful bidder shall submit the detailed BoM and the timeline for completion along with the agreement and security deposit. This timeline must be followed and no extension of time for completing the installation will be granted. Although, time extension may be granted for things beyond the control of the bidder.
- j) In case of no valid reason, extension of time of completion that can be granted at a time shall be 25% of the original time. The maximum extension that can be granted for a work shall be limited to half the original time of completion.
- k) When the contract period has to be extended wholly or partly due to default on the part of the bidder, the Agreement Authority may sanction extension of time after imposing fine as mentioned below;

Period	Rate of Fine
First Extension	1% of the PAC subject to a minimum of Rs. 1000/- and maximumof Rs. 50,000/
Second Extension	2% of the PAC subject to a minimum of Rs. 2000/- and maximumof Rs. 1,00,000/-

 Penalty for delay in supply and installation will be imposed at 0.5 % per week up to a maximum 10%. In case of delay in supply and installation, CEO, ANERT may cancel the contract and take recourse to other action as deemed appropriate.

# **22. PAYMENT**

a) No advance payment will be given. All the documents submitted should be certified by the concerned District Office of ANERT.

- b) The quotes for the Design, Supply, and Installation& Commissioning including 5 years of warranty Operation and Maintenance (EPC Part), to be provided by the bidders. The L1 bidder will be selected on the basis of their quotes on the EPC part with 5-year warranty and Operation and Maintenance.
  - c) 2.5% of the invoice amount shall be charged by ANERT as non-refundable license fee.The remaining amount will be treated as the contract value for further payment.
  - d) Upon delivery of major components at the site, 50 % of the contract value will be released as first part payment, if requested. The supplier shall submit the invoice for the materials (including serial numbers and delivery chalan) after the inspection from District Office.
  - e) On commissioning of the system, 40% of the contract value will be released. All documents related to the completion of the work including commissioning report, copy of warranty card, Insurance policies and any other needed shall be submitted for the release of the amount. The supplier shall submit the invoice for the materials supplied and all documents related including the Project Completion Report to the completion of the work shall be submitted for the release of the amount.
  - f) The remaining 10% shall be retained as performance security as given below. This period will be considered only from the date of commissioning.
    - I. 50% of the performance security shall be paid after one year on request along with the preventive maintenance reports.
    - II. The remaining 50% shall be paid after the five-year warranty period on request along with the preventive maintenance reports for the five years.
  - g) The EMD shall be released on the successful completion of work.
  - h) The security deposit of 3% in terms of Bank Guarantee/DD furnished along with the contract agreement shall be released on successful completion of supply, installation and commissioning.
  - i) Income tax, contribution to workers' welfare fund and other statutory deductions shall be made from the payment as per prevailing norms.

j) Penalty for delay in supply and installation will be imposed at 0.5 % per week up to a maximum 10%. In case of delay in supply and installation, CEO, ANERT may cancel the contract and take recourse to other action as deemed appropriate.

## 23. SERVICE AND MAINTENANCE

- a. The servicing should be carried out at the site of installation.
- b. The service personnel should visit the installations at least once in 3 months for preventive maintenance even if no faults are reported. **Reports of these preventive maintenance visits and generation data should be submitted to the concerned ANERT District Offices on a Yearly basis**.
- c. Any Delay in servicing beyond 15 days of fault reporting would attract penalty at the rate of fixed by ANERT and further actions will be initiated against the agency.
- d. A designated contact Telephone Number and address should be submitted for reporting faults during the warranty period.

## 24. WARRANTY

- a. 5 years' warranty should be provided by the supplier for the system and components or part of the system has to be provided as per the special conditions of the contract.
- b. The Warranty Card to be supplied with the system must contain the details of the all the components supplied including serial numbers.

#### **25. OPERATION MANUAL**

An Operation, Instruction and Maintenance Manual, should be provided with the system. The following minimum details must be provided in the manual:

- a) About SPV Pump its components and expected performance.
- b) DO's and DON'T's
- c) Clear instructions on regular maintenance and troubleshooting
- d) OEM Warrantee Certificates
- e) Data Sheets of major equipments

f) Name and address of the E.P.C Contractor and the contract person in case of nonfunctionality of the solar power plant.

#### 26. DISPLAY BOARD

c. The logo of ANERT and details of the scheme as specified in the work order are to be provided at the site of installation.

## **27. INSURANCE**

- a. The power plant must be insured at every stage of operation from Material dispatch, storage, completion of installation and till 5 years after commissioning. The insurance coverage on handing over of the system must include all conditions of Standard Fire and Special Perils Policy (Material Damage as well as theft). Also, the damages from wildlife and natural calamity are to be covered in addition.
- b. The insurance premium for the 5 years of warranty is to be paid by the bidder. Only the system components are to be insured. On handing over of the system, the original insurance policy is to be handed over to the authorised person at the site of installation and a copy to ANERT District Office. The annual premium payment receipt must be handed to the authorised person at the site of installation.

#### 28. Regulations & Standards:

a) The installation shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS:732 and IS:2274. It shall also be in conformity with the current Indian Electricity Rules and Regulations and requirements of the local Electric Supply Authority in so far as these become applicable to the installation. Wherever this specification calls for higher standard of material and/or workmanship than those required by any of the above regulations then this specification shall take precedence over the said regulations and standards.

### **TECHNICAL SPECIFICATION**

The proposed system involves 5 kWp solar power plant with 5 HP AC pump set of submersible type. The EPC Company should supply & install the complete system as needed.

#### **29. SCOPE OF THE WORK**

The scope of the work is detailed as below:

Sl. No.	ITEM
1	Supply Installation and commissioning of 5HP solar pumps involving 5 kWp Solar
	power plant with 5 HP AC pump set of submersible water filled pump with normal
	controller. The EPC company should supply & install the complete system as needed.
2	Provide 5-year warranty for the entire system.

#### Location

The locations of sites are

- 1. District Agricultural Farm Chelakkara, Thrissur
- 2. State seed farm, Pananchery, Thrissur
- 3. State seed farm, Kodassery, Thrissur
- 4. State seed farm, Pazhayannur, thrissur
- 5. Model horticultural farm, Kannara, Thrissur
- 6. State seed farm Mannuthy, Thrissur

#### **30. SPV MODULES**

- a) Only Mono PERC PV modules of 525 Wp or higher capacity should be used in the power plant. It is mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules.
- b) Shading correction/ bypass for optimizing array out to be incorporated in each solar module or panel level and shading optimization to be provided.
- c) Each PV module used in any solar power project must use a RF identification tag (RFID), which must contain the following information. The

RFID can be inside or outside the module laminate, but must be able to withstand harsh environmental conditions.

- i. Name of the manufacturer of PV Module.
- ii. Name of the manufacturer of Solar cells.
- iii. Month and year of the manufacture (separately for solar cells and module)
- iv. Country of origin (separately for solar cell and module)
- v. I-V curve for the module
- vi. Peak Wattage, Im, Vm and FF for the module
- vii. Unique Serial No. and Model No. of the module
- viii. Date and year of obtaining IEC PV module qualification certificate
  - ix. Name of the test lab issuing IEC certificate
  - x. Other relevant information on traceability of solar cells and module as per ISO 9000 series.
- d) The PV modules (enclose Reports/Certificates must qualify Test from IEC/NABL accredited laboratory) as relevant IEC standard. The per Performance of PV Modules at STC conditions must be tested and approved by one of the IEC/NABL Accredited Testing Laboratories.
- e) PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.

#### 31. PUMP SET

- a. The Pump set supplied may be of Submersible type;
- b. Motor The motor of the pump set may be of the following types:
  - i. AC Induction Motor.
  - ii. DC Motor [PMSM/BLDC/SRM (with brush or brushless)].

#### 32. CONTORLLER / DRIVE FOR SOLAR WATER PUMPING

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SN	Requirement	Specifications
	<b>Controller Power capac-</b>	Controller Power Capacity should match the Solar Panel
1.	ity to drive the Pump	Capacity, not the Pump Capacity.
	Maximum Power Point	Should track power only and not Voltage at Maximum
2.	Tracking (MMPT)	power point
3.	Enclosure	The Controller must have <b>IP65</b> protection or must be housed in a cabinet having at least <b>IP65</b> protection.
4.	Isolator Switch	Should be between Solar panels and controller

#### **33. MODULE MOUNTING STRUCTURE**

- a. Photovoltaic arrays must be mounted on a stable, durable structure that can support the array and withstand wind, rain, and other adverse conditions. The modules will be fixed on structures with fixed arrangement.
- b. The module mounting structures shall have adequate strength and appropriate design suitable to the locations, which can withstand the load and high wind velocities. Stationary structures shall support PV modules at a given orientation, absorb and transfer the mechanical loads to the surface properly.
- c. Wherever required, suitable number of PV panel structures shall be provided. Structures shall be of flat-plate design using minimum size of C (75 x 40 x 5mm) or L (55 x 55 x 5mm) or I (60x 40x 4mm) sections or higher dimensions for respective sections.
- d. Each structure with fixed tilt should have a tilt angle as per the site conditions to take maximum insolation which will be approximately equal to the latitude of the location facing true South with a North - South orientation. The tilt angle can vary from 9 degree to 12 degree based on the location's latitude in Kerala
- e. The PV module mounting structure shall have a capacity to withstand a wind velocity of 150 km/hr unless specified for dedicated requirements
- f. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed. The PV array structure design shall be appropriate with a factor of safety of min 1.5.

- g. The materials used for structures shall be Hot dip Galvanized Mild Steel conformed to IS 2062:1992 or aluminium of suitable grade minimum alloy 6063 or better.
- h. The minimum thickness of galvanization for hot dip Galvanized Mild Steel should be at least 80 microns as per IS 4759. The galvanisation thickness will be checked during inspection and the vendor is to arrange the equipment needed for the same at the site.
- i. The Bolts, Nuts, fasteners, and clamps used for panel mounting shall be of Stainless-Steel SS 304.
- j. Structures shall be supplied complete with all members to be compatible for allowing easy installation at the site. Additional Structures/Frames for required for the installation of modules if any need to be provided by the bidder.
- k. The structures shall be designed to allow easy replacement of any module, repairing and cleaning of any module.No Welding is allowed on the mounting structure. Adequate spacing shall be provided between two panel frames and rows of panels to facilitate personnel protection, ease of installation, replacement, cleaning of panels and electrical maintenance
- 1. Aluminium structures used shall be protected against rusting either by coating or anodization. Aluminium frames should be avoided for installations in coastal areas.
- m. The structure shall be designed to withstand operating environmental conditions for a period of minimum 25 years. And shall be free from corrosion while installation.
- n. Screw fasteners shall use existing mounting holes provided by module manufacturer.
   No additional holes shall be drilled on module frames
- o. The total load of the structure (when installed with PV modules) on the terrace should be less than  $60 \text{ kg/m}^2$ .
- p. Minimum distance between the lower level of PV Module and the ground shall be 0.6m from the ground level.
- q. The PV Panel area shall be accessible for cleaning and for any repair work.

# **34. EARTHING**

The Solar PV Plant should have a dedicated earthing system. The Earthing for array and LT power shall be made as per the provisions of **IS:3043-2018** "Code of practice for earthing (Second Revision)," that governs the earthing practices of a PV system and **IS 732:2019** "Code of practice for electrical wiring installations (Fourth Revision)

# 35. LIGHTNING PROTECTION

The SPV power plant should be provided with lightning and over voltage protection. The source of over voltage can be lightning or other atmospheric disturbance. The lightning conductors shall be made as per applicable Indian Standards in order to protect the entire array yard from lightning stroke. The design and specification shall conform to **IS/IEC 62305**, **"Protection against lightning"** govern all lightning protection-related practices of a PV system.

**i.** The protection against induced high voltages shall be provided by the use of surge protection devices (SPDs) and the earthing terminal of the SPD shall be connected to the earth through the earthing system.

#### 36. DC CABLING

Cabling is required for wiring from Solar Array upto the pump terminals.

- i. All cables of appropriate size to be used in the system.
- ii. For the DC cabling, XLPE or XLPO insulated and sheathed, UV stabilized single core flexible copper cables shall be used; multi-core cables shall not be used.
- iii. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers
- iv. Cable Marking: All cable/wires are to be marked in proper manner by good quality ferule or by other means so that the cable can be easily identified. The following colour code shall be used for cable wires
  - a. DC positive: red (the outer PVC sheath can be black with a red line marking
  - b. DC negative: black
  - c. Earth wires: green
  - v. Cables and conduits that have to pass through open space shall be taken through PVC pipe sleeve of required size.

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- vi. All cables and connectors used for installation of solar field must be of solar grade which can withstand harsh environment conditions including high temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes' for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall solar grade copper (Cu) with XLPO insulation and rated for 1.1 kV as per relevant standards only.

### **37. CIVIL WORKS**

- i. Civil works are inevitable for erecting the module mounting structure at open land. The erection shall be made with adequate strength based on site conditions.
- ii. While cabling the array, care must be taken such that no loose cables lie on the land.
- iii. Neatness, tidiness and aesthetics must be observed while installing the systems.
- iv. RCC Works All RCC works shall be as per IS 456 and the materials used viz. Cement reinforcement, steel etc. shall be as per relevant IS standards.
  - v. All Civil works required for the installation of the PV Plant shall be within the scope of the bidder.

# **ANNEXURE A - SUMMARY OF BID QUALIFICATION REQUIREMENTS**

# (To be filled in by the bidder)

1.	Name of the bidder	
2.	Address in full	
3.	Contact Details	
	Mobile	
	Land Phone	
	Fax	
	Email	
4.	Name and Designation of the authorised signatory	
5.	Details of EMD submitted along with the bid in favour of District Engineer, Thiruvananthapuram, ANERT	

Documentary evidence for the bid qualification requirements are submitted along with this document and the details furnished above are true and correct.

Signature of authorised signatory

Name

Designation

Date:

(Office seal)

# **ANNEXURE B - AGREEMENT**

ARTICLES OF AGREEMENT executed on this the ..... day of January 2023 Two thousand and Twenty Two between the **Agency for New & Renewable Energy Research and Technology** (hereinafter referred to as **ANERT**) of the one part and Sri.....

..... (Name and Address of the tenderer) hereinafter referred to as "the Bounden") of the other part.

AND WHEREAS the bounden has furnished to ANERT a sum of Rs..... as Earnest Money Deposit for execution of an agreement undertaking the due fulfilment of the contract in case his e-tender is accepted by ANERT. NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows: -

In case the tender submitted by the bounden is accepted by ANERT and the contract for ...... is awarded to the bounden, the bounden shall within <u>Fifteen</u> days of acceptance of this tender, execute an agreement with ANERT incorporating all the terms and conditions under which ANERT accepts this e-tender.

In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, ANERT shall have power and authority to recover from the bounden any loss or damage caused to ANERT by such breach as may be determined by ANERT by appropriating the moneys inclusive of Earnest Money deposited by the bounden and if the Earnest Money is found to be inadequate the deficit amount may be recovered from the bounden and his properties movable and immovable in the manner hereinafter contained.

All sums found due to ANERT under or by virtue of this agreement shall be recoverable from the bounden and his properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and in such other manner as ANERT may deem fit.

In witness whereof Sri ...... (Name and Designation) for and on behalf of the ANERT and Sri ...... the bounden have hereunto set their hands the day and year shown against their respective signature.

Signed by Sri	Signed by Sri
(Date)	(Date)
in the presence of witnesses	in the presence of witnesses
1.	1.
2.	2.

# **ANNEXURE C - DECLARATION BY THE BIDDER**

То

The C E O, ANERT Vikas bhavan Thiruvananthapuram

We, the undersigned, declare that:

- 1. We have examined and have no reservations to the Bidding Document, including Addenda No.: ........ (if any)
- 2. We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule
- 3. Our Bid shall be valid for a period of 3 months from the date fixed as deadline for the submission of tenders in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- 4. If our Bid is accepted, we commit to submit a Security Deposit in the amount of 5 percent of the Contract Price for the due performance of the Contract;
- 5. We are not participating, as Bidders, in more than one Bid in this bidding process;
- 6. Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the ANERT or Government of Kerala;
- 7. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed.
- 8. Our firm has obtained the certifications from MNRE or NABL approved Test laboratories, if required, that the goods and services are satisfying the technical criteria specified in the bid.

Date :

Signature Name

# ANNEXURE D – DECLARATION OF RELATIONSHIP WITH ANERT EMPLOYEE

(to be signed and submitted by the bidder along with the bid)

Tender Notification No. :

Design, Supply, Installation, Testing and commissioning of 6 Nos 5HP Standalone Solar AC Pump set (submersible type) with 5 years warranty at Government Agricultural farms at Thrissur District

То

The C E O, ANERT Vikas bhavan Thiruvananthapuram

Name of the ANERT employee with Designation:

Name of the bidder related to the employee:

This is to put on record that Shri/Smt .....

currently working as ..... in ANERT is related to

....., who is the bidder in the bid. We are aware of the Anti-

corruption policy of ANERT and will observe the highest standards during the procurement

and the execution of contract and shall retain from corrupt, fraudulent, collusive or coercive practices on competing for the contract.

Signature

Name

Date