

BIDDING DOCUMENTS

FOR

1. Animal/shrimp feed compatible to different growth stages of shrimp
Option-I: Locally manufactured
Option-II: Imported
2. Solar System alongwith moveable/ portable structure (Trolley)



DIRECTOR GENERAL FISHERIES, PUNJAB, LAHORE

9-A Bahawalpur Road, Chauburji, Lahore

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**PURCHASE CELL
O/O DIRECTOR GENERAL FISHERIES,
PUNJAB, LAHORE**



INVITATION TO BID

Dear Sir,

You are hereby invited to submit your tender for the supply of store as detailed in the schedule to this Invitation to Tender subject to the condition laid in PPRA and those mentioned here under and given in the schedule. The contract resulting from this invitation to tender shall be governed by the General Conditions of contract as contained in Tender Enquiry as required under the Punjab Procurement Rules 2014, the special conditions contained in Sr. No. 40-49 where ever applicable. The tenderer quoting against this invitation to tender shall be deemed to have read and understood the conditions thereof and the particulars of the items required and the specifications etc. in “Annexure-A”

2. The tenderer shall quote on the prescribed schedule to this invitation to tender on the basis indicated therein and shall sign, the certificate given therein to the effect that the supply of store shall be provided exactly in accordance with the requirement of the tender otherwise it would be presumed that offer is strictly in accordance with the requirement specified in the schedule. In case there is any deviation it should be clearly stated by the tenderer otherwise it would be presumed that offer is strictly in accordance with the requirement of the tender.
3. In the case of offers for supply of store **the price quoted shall be inclusive of all taxes, duties and charges. Where sales tax is leviable and included in the price quoted it shall be indicated separately in Financial Bid as per format given below:**

A- Animal/shrimp feed compatible to different growth stages of shrimp

Option-I: Locally manufactured

Detail of items	Price per Kg without Taxes	Price per Kg with all Taxes	Quantity (kg)	Total Price without Taxes	Total Price with Taxes
Locally manufactured Feed			66,000		

Option-II: Imported

Detail of items	Price per Kg without Taxes	Price per Kg with all Taxes	Quantity (kg)	Total Price without Taxes	Total Price with Taxes
Imported Feed			66,000		

B- Solar System alongwith moveable/ portable structure (Trolley)

Detail of items	Price per unit without Taxes	Price per unit with all Taxes	Quantity (No.)	Total Price without Taxes	Total Price with Taxes
Solar System alongwith moveable/ portable structure (Trolley)			05		

4. The supply of store is required for delivery/shipment as stated in the schedule.
5. Failure to submit the tender in the manner prescribed in the invitation to tender will be returned or liable to be ignored.
6. The purchaser does not pledge himself to accept the lowest tender /reserves to himself the right of accepting the full or part quantity offered and the tenderer shall supply the same at the rate quoted. The tenderer is at liberty to quote for the full or part quantity.





**DEPARTMENT OF FISHERIES
PUNJAB**

Phone # 99212374 -75

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BID MONEY/SECURITIES

TENDER PRICE RS.1000/- FOR EACH ITEM (NON REFUNDABLE), 1% EARNEST MONEY OF THE TENDER VALUE AND 5% PERFORMANCE GUARANTEE SCHEDULE TO INVITATION TO ADVERTISED TENDER NOTICE

A	Date and time of Technical Bid submission	Upto 12-07-2024 at 11:00 A.M.
B	Date and Time of Technical Bid opening	12-07-2024 at 11:30 A.M
D	Delivery period	25-08-2024 or earlier

INSTRCTIONS TO BIDDER:

1. An offer not fulfilling any of the terms and conditions will be ignored.
2. Offer shall remain open for at least **90 days** for acceptance from the date of opening of tender.
3. Tenderers should submit 1% bid security/earnest money of the ***estimated cost** (attached with technical bid).
4. Tenderers should quote their price both in words and figures failing which their offer will be ignored.
5. Inspection of items with association of the Indenting officer will be conducted.
6. The firm if fails, to execute contract as per terms & conditions of the contract, the earnest money, if any, will be forfeited in addition to other actions under the rules on the subject.

TENDER NOTICE

Sr.#	Tender Enquiry No.	Brief Description of items	Quantity Required	Estimated cost (Rs. in million)	1% Bid Security (Rs in mill.)
1	PC/ND/PSF-II/2024-25	Animal/shrimp feed compatible to different growth stages of shrimp Option-I: Locally manufactured Option-II: Imported	66,000 kg	24.500	0.245
2	PC/ND/PSF-IV/2024-25	Solar System alongwith moveable/portable structure (Trolley)	05 No.	11.000	0.110

GENERAL CONDITIONS OF CONTRACT

1. Procurement contract for items will be executed on **stamp papers** of prescribed value by the provincial government at the rate of 25 paise per Rs. 100/- on part thereof of the amount of contract under the Government of the Punjab vide section 22 (A) (b) of the schedule-1 of stamp Act 1899 read with Finance Act 1995 (Act-VI of 1995).
2. The supplier shall have to ensure the supply of said items within 25-days after receipt of confirmed supply order or before **25-08-2024** whichever is earlier.
3. Certified documents of items must be provided by the supplier at the time of delivery of items and this responsibility rests with consignee/indenter representative to also receive documents who receive the items at the time of taking delivery.

4. Payment of items is to be made by the consignee on receipt of items and provision of services according to contract specifications satisfactorily and within stipulated period, given to the supplier by the Department.
5. In case of have authorization from their principals, the Supplier/Agent/Dealer will have to attach the attested copy of valid Dealership certificate/License or authorization from the manufacturer.
6. The rates offered should be according to approved specifications of Departmental Standardization Committee Department of Fisheries, on the basis of single stage procedure with two envelopes system i.e. Technical and Financial offers/proposals separately, as per Rule-38(2)(a) of the Punjab Procurement Rules (PPR), 2014.
7. The rates offered should be from only such persons/firms who are registered with Sales Tax & Income Tax Department and are required to quote their **Sale Tax Registration Number** & Income Tax Registration No. and showing the amount of Sales Tax invoice as well as **Professional Tax** Clearance Certificate.
8. Income Tax will be deducted by the department at the prescribed rates of the Income Tax Department.
9. The rates offered should be as per specifications mentioned in the Tender Enquiry.
10. All the bidders must sign and stamp each paper of Tender Enquiry.
11. All the Bidders/ firms must attach 1% Earnest Money of estimated cost with **Technical offers** mentioned at instructions 6 in the form of CDR in favor of Director General Fisheries Earnest Money of the successful bidders should be returned after opening of the tenders and fulfillment of other requirements by the tenderer i.e. deposit of performance guarantee/security 5% of the tender value etc.
12. The successful bidder shall have to deposit Performance Guarantee/Security in the shape of CDR @ 5% of the total value of the tender in the name of Director General Fisheries within the period specified in advance acceptance of Tender. Otherwise tender will be rejected and Earnest Money will also be forfeited.
13. The offers must include all kinds of duties and taxes etc. and should remain valid for **90 days (minimum)** from the date of opening of the tenders. The successful tenderer shall have to supply the items within specified period after the issuance of purchase order, otherwise the Earnest Money shall be forfeited, tender cancelled and the firm will be black listed.
14. Conditional or late tenders shall not be accepted/considered.
15. The Department reserves the right to reject all the bids or proposals at any time without assigning any reason prior to the acceptance of a bid or proposal as per Rule-35 of PPR, 2014.





**DEPARTMENT OF FISHERIES
PUNJAB**

Phone # 99212374 -75

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LIST OF GOODS OR BILL OF QUANTITIES (WHERE APPLICABLE)

DELIVERY TIME OR COMPELETION SCHEDULE

PROFORMA TENDER ENQUIRY FOR PURCHASE ON FREE DELIVERY SCHEDULE

Date of Opening	12-07-2024
Time of receipt	Upto 11:00 A.M.
Time of Opening	11:30 A.M.
Delivery period	upto 25-08-2024 or earlier

Note: **Please read the following note and instructions carefully:**

1. An offer not covered as per terms and conditions of the tender enquiry is liable to be ignored. No offer shall be considered if:
 - i. Received without Earnest Money.
 - ii. It is received after the time and date fixed for its receipts.
 - iii. The tender is unsigned.
 - iv. The offer is ambiguous.
 - v. The offer is conditional.
 - vi. The offer is from a firm which is black listed, suspended or removed from the approved list of any Government Department/Organization.
 - vii. The offer is received by telegram.
 - viii. Offer received with shorter validity than required in the tender enquiry; and
 - ix. Offer is not confirming to specifications of the items indicated in the tender enquiry.
2. Offers will remain valid for **90 days (minimum)** from the date of opening of the tender.
3. As per PP Rule No. 38(2) a Single stage two envelope procedures shall be followed with details given below:
 - 3.1 The bid shall comprise of a single package containing two separate envelopes. Each envelope shall contain separately the Technical Proposal (envelope A) and Financial Proposal (envelope B)
 - 3.2 The envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
 - 3.3 Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;The envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of procuring agency without being opened;
 - 3.4 The Procuring Agency shall evaluate the Technical Proposal under **PPRA Rule # 32 (1)** and in a manner prescribed in this document, without reference to the price and reject any proposal which does not conform to the specified requirements as listed in said Sections. During the technical evaluation no amendments in the technical proposal shall be permitted;



- 3.5 After the evaluation and approval of the Technical Proposal the Procuring Agency, shall at a time within the bid validity period, publicly open the Financial Proposals of the technically accepted and qualified bids only. The Financial Proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders.
4. The purchaser reserves the right to purchase full or part of the items or ignore/scrap/cancel the tender without assigning any reason.
 5. (a) If the acceptance of tender issued during the validity period of the offer is not accepted by the tenderer, the Earnest Money shall be forfeited and the items will be purchased at his risk and expense.
(b) In case, the offer is withdrawn, amended or revised during the validity period of the offer, the Earnest Money is liable to be forfeited.
(c) In case, the contractor fails to execute the contract strictly in accordance with terms and conditions laid down in the contract the security deposited by him shall be forfeited and the items will be purchased at his risk and expense.
 6. The buyer reserves the right to claim compensation for the loss caused by the delay in the delivery of items.

SPECIAL INSTRUCTIONS / QUALIFICATION CRITERIA

1. The items are required by the consignee by “As early as possible”. However, the tenderers are required to indicate their own guaranteed earliest date by which the items will be supplied by them.
2. Tenderers must quote on the prescribed invitation to Tender Form in limited tender as well as in advertised tender.
3. Tenders should be addressed to **Director General Fisheries, Punjab, Lahore.**
4. Tenderers should quote their firm and final rates both in words as well as in figures.
5. The successful tenderer may be required to furnish security deposit upto 5% in the form of Call Deposit in favor of **Director General Fisheries, Punjab, Lahore** within the period specified in Advance Acceptance of Tender, failing which purchase shall be made at his risk and expense.
6. Against indigenous items Tenderers who are manufacturers must indicate name and address of the works in Pakistan from where they intend to supply the items.
7. Any Conditional, ambiguous or called in-complete offer in any respect shall be ignored.
8. The supplementary or revised offer after the opening of tenders shall not be entertained.
9. The tenderers should indicate in their tenders, the complete address or the place/places where items will be offered for inspection.
10. The tenderers shall enclose catalogues/leaflets/literature and other technical data, if any in respect of items offered by them.
11. Tenderer should specifically indicate their General Index Registration (G.I.R.) No. and Circle of the Income Tax Department.
12. Any erasing/cutting/crossing etc. appearing in the offer must be properly signed by the person signing the tender. Moreover, all pages of the tender must also be properly signed, offers with any over-writing will be cancelled.
13. The quotation should be submitted on the basis of accounting units specified in the invitation to tender.
14. (a) A certificate should be given by the tenderers that they will be responsible for the free replacement of items if the same is found to be substandard and/ or at variance with the specifications given in the tender enquiry. In case a similar item offered is at variance with



the specifications given in the tender enquiry, the tenderers must clearly identify variation in their offers. Items offered of a specification superior to the one specified in the tender enquiry shall, however, be acceptable.

- (b) In case indigenous items is offered as a items similar to that specified in the tender enquiry the tenderers shall within seven days of the opening of the tender have the said items, wherever possible, pre-inspected by the inspection team of the purchaser at their own cost.
 - (c) Where offers have been invited for specified brands, offers for other brands shall not be acceptable which are not in equivalence.
 15. Items should be brand new and in original manufacturers packing with allied accessories.
 16. Free service and supply of spare parts must be provided as per contract.
 17. Tender samples where needed should be submitted by the tenderers along with their offers. Bulky samples should be delivered at the time of the opening of the tenders, failing which the offer shall not be entertained.
 18. The items are required as per indenters specifications which is available in the office of Director General Fisheries and can be seen during office hours.
 19. Import documents shall be produced at the time of inspection to ensure that items offered for inspection are imported.
 20. The tenderer should undertake that the security may be forfeited if they fail to furnish the import documents on inspection as at (iv) or to purchase the items at their risk and expense.
 21. 100% payment will be allowed on receipt of inspection and accepted items by the consignee who shall return the inspection notes to the authorized representative of the firm within a period of 10 days.
 21. Testing charges of sample/samples against the tender/advance bulk suppliers will be born by the tenderer/contractor irrespective of the result of the sample/samples.
 22. The supplier will deliver all above items at **Shrimp Farm Muzaffargarh**
 23. Lab test report of Shrimp feed would be provided by the bidder.
 24. Partial payment on receiving of partial supply of feed would be admissible.
 25. The tender shall be enclosed in a double cover. The out cover shall bear the address of the office issuing the invitation to tender without any indication that it encloses a tender. The inner cover shall be sealed and the number of the Invitation to Tender and date of opening shall be clearly marked on it. All out-station tenders must be sent by Registered Post well in time and only one "Tender" (with both technical and financial offers, separately) shall be enclosed in one cover.
 26. All tenders shall be opened at the time and date specified in the Invitation to Tender. The tenderer's representative shall be at liberty to be present at opening of the tenders of the value of Rs. 5,00,000/- and above.
 27. **The Director, Manager, Secretary, or Representative of the firm shall have to produce copy of the documents authorizing him to sign the tender, if required.**
- Note:-** All the members on an attorney duly authorized by all of them or the Manager of the firm shall sign the tender and other subsequent documents.
29. It is in the interest of the tenderers to get themselves registered with the Department as "APPROVED CONTRACTORS"/PRE-QUALIFIED FIRM IF REQUIRED".
 30. The tenderer shall give the following information, if called upon to do so:
 - (i) **Registration No. as approved Contractor**
 - (ii) **Consumer Confidence Index (C.C.I) and Registration No.**
 31. The submission of tender against the Invitation to Tender by the tenderer, shall deemed to his having read and accepted the conditions contained in detail given in tender documents

and thoroughly examined the specifications, drawing and particulars specified in the Invitation to Tender. Further the tenderer shall be deemed to be fully aware of the nature of goods required and shall be bound to accept the contract, if placed with him on the basis of his prices within the validity of his tender.

32. The tenderer shall certify in his tender that items offered for supply shall be strictly in accordance with the requirements set out in the Invitation to Tender. This shall be done by affixing the green certificate as under the top of the first sheet of his tender.

We guarantee to supply of store exactly in accordance with the requirement specified in the invitation to Tender No.....
Tenderer's Signature

33. The Invitation to Tender may be purchased from appropriate authority specified and cash receipt must be enclosed with the tender.
34. The unsolicited, late and delayed tenders shall not be considered.
35. Any correction or alteration in the tender must be signed in full by the same person, who is signing the tender for and on behalf of the tenderer.
36. The purchaser does not pledged himself to accept the lowest tender and reserves the right of accepting the whole or any part of the tender or portion of the quantity offered, and the tenderer shall supply the same at the rate quoted. The tenderers are at liberty to tender for the whole or any portion or to state in the tender that the rate quoted shall apply only if the entire quantity is purchased.
37. Acceptance by the Purchaser will be communicated by e-mail, telegram, letter of acceptance or Advance Acceptance of Tender or formal "ACCEPTANCE OF TENDER". In case, where acceptance is communicated by the courier/ fax or letter or Advance Acceptance of tender, the formal Acceptance of Tender will be forwarded to the successful tenderer as soon as possible but the instructions contained in the courier/fax, letter or advance Acceptance of Tender shall be acted upon, immediately.
38. The tenderer must always give his tender for brand new items of latest design, robust construction and made according to the modern manufacturing practice. Unsolicited, late and delayed tenders shall not be considered.
39. Tenderers offering items subject to prior sale shall not be considered.



SPECIAL CONDITIONS FOR PLANT AND MACHINERY

40. The plant and machinery offered by the tenderers must be suitable for operation in extreme tropical climate at site and for the working duty (8 hours, 12 hours or continuous 24 hours etc) as specified in the Invitation to Tender.
41. The plant and machinery offered by the tenderer shall be of latest well tried design and robust construction to give adequate service life expected from them after installation at site.
42. The successful tenderer shall be required to furnish complete details for suitable layout, foundation, installation erection, inspection and tests, operations and maintenance.
43. The plant and machinery offered shall always be complete with its normal standard accessories, fittings, tool kit and spare parts, if any.
44. A successful tenderer shall furnish at the option of the purchaser a price spare part list of the plant and machinery offered by him, to facilitate the supply of spare parts afterwards.
45. The tenderers are advised in their own interest to make sure that the plant and machinery offered by them meet the specified requirements and are capable of giving the required performance and services at site with its local conditions regarding climate, ground air, water, power and fuel etc.
46. The successful tenderer shall have to make suitable arrangements for inspection and tests if required by the Inspector/Purchaser after installation at site.
47. The tenderer must ensure the use of best materials in the making of plant and machinery tenders by them or their principals. The use of any below standard materials shall make the goods liable to rejection and the tenderers liable to compensation and disciplinary and monetary repercussion upon the tenderer.
48. The price quoted by the tenderer shall include the cost of competent engineers to supervise initial operation and training of the consignee's staff and to guide for the servicing and maintenance of the plant and machinery offered and supplied.
49. The prices quoted by the tenderer shall include the cost of all routine type tests stipulated in the specifications governing the supply of goods.



CERTIFICATE

- a) We hereby confirm to have read carefully the description of items and all the terms and conditions of your tender due for opening on **12-07-2024 at 11:30 A.M.** in the office of Director General Fisheries, Punjab, 9-A Bahawalpur Road, Chauburji, Lahore for the supply of **tender item**.
- b) We agree to abide by all the instructions/conditions of the said tender enquiry and specifications attached (**Annexure-A**).
- c) We also hereby categorically confirm that the items offered by us are exactly to the particulars and specifications as laid down in tender enquiry in all respect.
- d) The items offered by us are of the origin as required in **Annexure-A**.
- e) We accept that if the required Earnest Money is not furnished with our offer, it shall be ignored.
- f) We hereby confirm to adhere to the delivery period required in the tender enquiry which should be the essence of the contract and un-conditionally to accept the recovery of belated damages on later supplies at 2% per month or part thereof.
- g) We certify that the price quoted to the Department against Tender item is not more than the price charged from any other Purchasing Agency in the Country and in case of any discrepancy, the tenderer hereby undertakes to refund the price charged in excess.

Name of Tenderer _____

Signature of Tenderer _____

Designation _____

Seal _____

Witness

a) Name: _____ (Signature) _____

b) Full Address: _____

c) Date: _____



EVALUATION CRITERIA

A. TECHNICAL EVALUATION CRITERIA

1	Valid Income Tax Registration No. (status active with FBR)	Mandatory
2	Valid GST Registration No. (status active)	Mandatory
3	Professional Sales Tax Certificate of current year	Mandatory
4	Technical Proposal (Conformance to the required specification of items given in Annexure-A)	Mandatory Technical evaluation shall base on Technical Specification (Annexure-A)
5	Samples / Drawings (if needed)	Mandatory

Note:

- 1- Firms shall provide complete set of requisite documents otherwise bid shall be rejected.
- 2- The bidder must provide Verifiable documentary proof against all the mandatory requirement and Evaluation Criteria along with the Technical Proposal and no document will be received or considered after opening of the Technical Proposal. The Procuring Agency may ask for physical Demonstration sample of any of the items given in the Tender Document for confirmation of the specifications.

B. FINANCIAL PROPOSAL EVALUATION

Technically qualified/successful bidder(s)/Tenderer(s) shall be called for opening of the Financial Proposal(s). The Financial Proposals will be opened in the presence of the after technical evaluation. The technically Eligible/Successful Bidder(s)/Tenderer(s) or their authorized representatives against each item shall be allowed to take part in the Financial Proposal(s) opening against their relevant item(s).

Financial Proposal evaluation will be conducted under the Punjab Procurement Rules, 2014. The Price evaluation will include all duties, taxes and expenses etc. In case of any exemption of duties and taxes made by the Government in favor of the Procuring Agency, the contractor shall be bound to adjust the same in the Financial Proposal.



ANNEXURE A

TECHNICAL SPECIFICATION AND SCHEDULED OF REQUIREMENT

SPECIFICATIONS OF ANIMAL/ SHRIMP FEED OF PILOT PROJECT FOR ADAPTIVE RESEARCH ON SHRIMP FARMING AT MUZAFFARGARH

Option-I: Locally manufactured

Option-II: Imported

- Feed supply must be partial and not be expired during growth period of shrimp
- In case of general order supplier, the document of origin/name of shrimp feed mill along with consent letter from the mill be provided in Technical Bid

TYPES AND COMPOSITION OF FEED:

Particulars	Feed Category/ Type			
	1- STARTER	2- STARTER	1-GROWER	2-GROWER
Feed Form	Crumble	Crumble/Pellet	Pellet	Pellet
Feed size (mm)	0.2 ~ 1.2	1.2 ~ 1.6	1.6- 1.8	1.8- 2.0
Feed quantity (66000 kg)	6300 kg	7050 kg	8000 kg	44650 kg
	Note: The quantity of each type of feed would be supplied as per requirement of age group of shrimp.			

Feed Composition:

Crude Protein: (Fish meal, shrimp powder protein minimum 50 % of total protein)	36-42%	36-40 %	36-38%	36%
Crude Fat	5-7%	5-7%	5-7%	5-7%
Carbohydrates	10-15 %	15-25 %	15-25 %	15-25 %
Fiber (not more than)	4%	4%	4%	4%
Moisture	8~10%	8~10%	8~10%	8~10%
Ash	12-15%	12-15%	12-15%	12-15%
Calcium compound (minimum)	3%	3%	3%	3%
Phosphorous	1-1.5 %	1-1.5 %	1-1.5 %	1-1.5 %
Standard vitamins and Minerals Premix (not less than)	3 %	3 %	3 %	3 %

Physical Characteristics of Feed: Feed must be sinking, uniform size and same color of feed grains in each category, soft dry clean surface, separate grains (not clotted), appealing look and aroma, water stability level:2-3 hours

Amino Acid Profile: Feed protein must perform ideal protein test through proximate analysis having 12 essential amino acid of protein with standard ratio as under:



Essential Amino Acid Profile

Protein	36 %	38 %	40 %	42 %
Arginine	2.09	2.20	2.32	2.61
Histidine	0.76	0.80	0.84	0.95
Isoleucine	1.26	1.33	1.40	1.58
Leucine	1.94	2.05	2.16	2.43
Met + Cys	0.86	0.91	0.96	1.08
Phe + Tyr	1.30	1.37	1.44	1.62
Threonine	1.44	1.52	1.60	1.80
Tryptophan	2.57	2.70	2.84	3.20
Valine	1.30	1.37	1.44	1.62

TERMS & CONDITIONS

1. The supplying firm will be responsible for free delivery of shrimp feed at shrimp farms at Muzaffargarh.
2. The consignee/ Department of Fisheries can ask the supplying firm for analysis report of feed samples collected randomly from the supplied consignment, from well reputed lab.
3. Partial payment can be made on partial supply of consignment
4. The supplying firm will be responsible for complete information including expiry date printed on feed bags.
5. The consignee's address: Assistant Director Fisheries, Fish Hatchery (SWARC), Thermal Bypass, N-70, near Bismillah Petroleum Services, Muzaffargarh (0301-6962349/ 0334-6465305).



(SIKANDAR JAMIL)
Assistant Director Fisheries
Fish Hatchery (SWARC),
Muzaffargarh



**SPECIFICATIONS OF SOLAR SYSTEM ALONGWITH MOVEABLE/ PORTABLE
STRUCTURE (TROLLEY) FOR PILOT PROJECT FOR ADAPTIVE RESEARCH ON
SHRIMP FARMING AT MUZAFFARGARH**

Name of Item	Technical Specifications	Qty.																			
Solar System alongwith moveable/ portable structure (Trolley)	<p>A. Solar Panel</p> <table border="1"> <tr> <td data-bbox="384 421 651 645">Photovoltaic Module (14 KW):</td> <td data-bbox="651 421 1337 645"> <ul style="list-style-type: none"> Canadian, Jinko, JA or equivalent 580 (minimum) Watt, N type mono PERC technology with minimum 60 cells A grade efficiency of 23% minimum, +5W power tolerance. 3 diodes and Junction Box of IP 65 or better <p>Warranty: minimum 25 years</p> </td> </tr> </table>	Photovoltaic Module (14 KW):	<ul style="list-style-type: none"> Canadian, Jinko, JA or equivalent 580 (minimum) Watt, N type mono PERC technology with minimum 60 cells A grade efficiency of 23% minimum, +5W power tolerance. 3 diodes and Junction Box of IP 65 or better <p>Warranty: minimum 25 years</p>	120 No.																	
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	<p>B. VFD (variable frequency drive)/ MPPT Pump inverter</p> <table border="1"> <tr> <td data-bbox="384 712 651 936">MPPT Solar Pump Controller/ Inverter (VFD):</td> <td data-bbox="651 712 1337 936"> <p>01 No.</p> <ul style="list-style-type: none"> Capacity 18 KW or above with LCD display and grid input option (can directly accept 3-phase AC supply) 3 phase inverter IP 65 Dry running protection and self-restart function Should have facility of auto start & stop function <p>Warranty: minimum 01 year</p> </td> </tr> </table>	MPPT Solar Pump Controller/ Inverter (VFD):	<p>01 No.</p> <ul style="list-style-type: none"> Capacity 18 KW or above with LCD display and grid input option (can directly accept 3-phase AC supply) 3 phase inverter IP 65 Dry running protection and self-restart function Should have facility of auto start & stop function <p>Warranty: minimum 01 year</p>	05 No.																	
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<p>C. Moveable Structure for Solar Panel (Trolley)</p> <table border="1"> <tr> <td data-bbox="384 965 571 987">Stand capacity:</td> <td data-bbox="571 965 1337 987">24 solar plates (580 watt each) minimum</td> </tr> <tr> <td data-bbox="384 999 571 1021">Frame:</td> <td data-bbox="571 999 1337 1021">C channel 6 inch or better</td> </tr> <tr> <td data-bbox="384 1032 571 1077">Thickness of Reeling arm:</td> <td data-bbox="571 1032 1337 1077">5mm minimum</td> </tr> <tr> <td data-bbox="384 1088 571 1133">Thickness of Main Pillar:</td> <td data-bbox="571 1088 1337 1133">5mm minimum</td> </tr> <tr> <td data-bbox="384 1144 571 1189">Pillar pipe diameter:</td> <td data-bbox="571 1144 1337 1189">8.5 inch or better with thickness 7 mm minimum</td> </tr> <tr> <td data-bbox="384 1200 571 1245">Four (4) stands:</td> <td data-bbox="571 1200 1337 1245">2.2 inchx2.5 inch with thickness 1.5 sooter minimum</td> </tr> <tr> <td data-bbox="384 1256 571 1346">Distribution boxes:</td> <td data-bbox="571 1256 1337 1346"> <ul style="list-style-type: none"> With protection of PV pipe & all other accessories High quality switch/ breaker (4 No. minimum) </td> </tr> <tr> <td data-bbox="384 1357 571 1615">Cabling:</td> <td data-bbox="571 1357 1337 1615"> <ul style="list-style-type: none"> 99.99% pure copper D.C. cables (6mm XLPO, FAST/ New Age or equivalent), quantity as per design and requirement of the site 99.99% pure copper A.C. cable 3 core 10mm (FAST/ New Age or equivalent) & length 200ft </td> </tr> <tr> <td data-bbox="384 1626 571 1648">VFD/ Inverter Box:</td> <td data-bbox="571 1626 1337 1648">Built in</td> </tr> <tr> <td data-bbox="384 1659 571 1704">Wheels:</td> <td data-bbox="571 1659 1337 1704">4 Rims with tyres (6 nuts) "Dhurra" size 3.5 inch minimum, pipe thickness 6mm</td> </tr> </table> <p>Note:</p> <ol style="list-style-type: none"> The nearest specifications would be acceptable. Transportation & installation at the site of consignee's end. With all standard accessories. End user's training. 	Stand capacity:	24 solar plates (580 watt each) minimum	Frame:	C channel 6 inch or better	Thickness of Reeling arm:	5mm minimum	Thickness of Main Pillar:	5mm minimum	Pillar pipe diameter:	8.5 inch or better with thickness 7 mm minimum	Four (4) stands:	2.2 inchx2.5 inch with thickness 1.5 sooter minimum	Distribution boxes:	<ul style="list-style-type: none"> With protection of PV pipe & all other accessories High quality switch/ breaker (4 No. minimum) 	Cabling:	<ul style="list-style-type: none"> 99.99% pure copper D.C. cables (6mm XLPO, FAST/ New Age or equivalent), quantity as per design and requirement of the site 99.99% pure copper A.C. cable 3 core 10mm (FAST/ New Age or equivalent) & length 200ft 	VFD/ Inverter Box:	Built in	Wheels:	4 Rims with tyres (6 nuts) "Dhurra" size 3.5 inch minimum, pipe thickness 6mm	05 No.
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TERMS & CONDITIONS

- The supplying firm will be responsible for free delivery of Solar System at shrimp farms at Muzaffargarh.



2. The consignee's address: Assistant Director Fisheries, Fish Hatchery (SWARC), Thermal Bypass, N-70, near Bismillah Petroleum Services, Muzaffargarh (0301-6962349/ 0334-6465305)



(SIKANDAR JAMIL)
Assistant Director Fisheries
Fish Hatchery (SWARC),
Muzaffargarh

