

**TENDER DOCUMENTS FOR SOLAR POWER PLANT
WORKS OF MANNAM AYURVEDA CO-OPERATIVE
MEDICAL COLLEGE HOSPITAL AT PANDALAM**

ARCHITECT

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MEP CONSULTANTS

M/S INTELLIGENT BUILDING SYSTEMS

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INVITATION TO TENDER / TENDER NOTICE

Tenders are hereby invited for the following **SOLAR PLANT WORKS** as per the details given below.

1. Description of the Work: Supply and Installation of Solar plant related works for **MANNAM AYURVEDA CO-OPERATIVE MEDICAL COLLEGE HOSPITAL AT PANDALAM**

2. The tender documents can be downloaded from the official website of the client/ email sent to the contractors by the engineering consultant/client.

3. Bidders participating must submit an Earnest Money Deposit (EMD) of **₹50,000/-** in the form of Demand Draft or Cash. The EMD of unsuccessful bidders will be returned without any accrued interest after the final award of the contract to the successful bidder. The EMD of the successful bidder will be adjusted into the security deposit once the bidder signs the formal agreement.

4. Participants must submit all the documents mentioned in attached PRE-QUALIFICATION OF CONTRACT along with the bid. **Technical and commercial offers must be submitted as separate entities/ envelopes along with the EMD.** Only those participants who fulfill the technical qualification criteria will be considered for the further evaluation.

5. The tender shall be duly filled-in as per the 'Instructions to the Tenderers attached herewith and shall be received at the 'Place of submission of Tenders' not later than 15:00 Hrs. on or before **08/09/2026**. The contractor must ensure to provide the official seal on the pages of BOQ.

6. Date of Issue of Tender: 21/08/2026

7. Last Date and Time for receiving completed tender documents: 15.00 Hrs on 08/09/2026.

8. The contractor shall share the BOQ along with the covering letter and profile details.

9. Place of Submission of Tender:

Technical & priced commercial hardcopy at:

**DIRECTOR
MANNAM AYURVEDA CO-OPERATIVE
MEDICAL COLLEGE HOSPITAL
PANDALAM 689501**

10. Validity of the offer: 30 days.

11. Work completion period: 90 days.

12. Name and address of contractor

Name:

Address:

(Contractor's sign & seal)

PRE-QUALIFICATION OF CONTRACT

1. Company Profile- including legal status (Sole Proprietorship, Partnership, LLP, or Private Limited). Attach copies of GST Registration, PAN Card, and valid PF & ESI registration certificates.
2. Experience of having successfully completed at least 3 similar projects of 200 kW capacity or above as a prime EPC contractor within the last 5 years. Attach copies of Work Orders/ Letters of Award/ Commissioning Certificates
3. Copies of Income Tax Returns along with Audited Balance Sheets and Profit & Loss statements for the last three financial years.
4. Proof of an established registered/fully functional service center or office in Kerala. Bidder must provide a documented 24/7 technical support structure, including an escalation matrix, dedicated helpline numbers, and a list of qualified service engineers stationed in the state.
5. The bidder must provide certificate of valid Class A Electrical Contractor License of their own or associate.

INSTRUCTIONS TO TENDERERS

1. Tenderer shall read all the pages of the Tender documents in detail and their authorized signatory should sign the tender documents.
2. The complete tender documents duly filled in shall be submitted along with all the associated documents at the time of submission of the Tender.
3. Any comments that the tenderer desires to make shall not be written on the Tender documents. This may take the form of separate document which is as brief and clear as possible giving reference to the statement or and clauses and pages of the Tender documents.
4. Tenderer shall commence and complete the work within the specified time.
5. The Client/Owner is deemed the accepting authority of the Tender for the purpose of awarding the Contract.
6. The right for acceptance of the tender shall remain with the Client/Owner who does not bind himself to award the work to the lowest or any tenderer. No details or reasons shall be furnished to any person or organization or statutory body for the rejection or acceptance of any Tender.
7. The right for acceptance of the Tender in part or whole or the right to employ different contractors for separate works rests solely with the Client/Owner.
8. The Tenderers shall inspect the site and study all drawings related to the work and all the tenderers shall sign the same with their official seal and return along with the tender documents.
9. Tender documents shall be submitted in hard copy to the client through the site office in a sealed envelope super scribed with the description of the work, last date and time for receiving the tenders.
10. If it is proved that two or more persons connected with one another either financially or as a principal or agent for one another have tendered under different names for the same contract without disclosing their relationship, then such tenders will be rejected.
11. Client will not be responsible for or to pay losses or expenses incurred by the Tenderer for the preparation and submission of the Tender.
12. Tenderers will be permitted access to the site of the work for inspection during tender period which may be arranged by request and approval from the site in charge.
13. If the Tenderer finds any discrepancy, omission, ambiguity or conflict in or among the documents forwarded or is in doubt as to the interpretation and meaning; it should be immediately brought to the attention of the Consulting Engineers.
14. Tenderers should submit the detailed computations showing the figures on which the units and overall rates are based if so requested by the Consulting Engineers.
15. Tenderers should write the total value of the Contract both in numerical figures and Words, if any difference is found between the two, the value in words will be considered final.

16. Tenderers should quote for all the items indicated in the schedule of quantities of the tender documents. Incomplete tenders are liable to be rejected.

17. The site is located at Pandalam.

The Contractor must visit the site of work before submission of the tender to fully satisfy himself on all questions relating to and concerning the existing conditions of site and performance thereon. The dimensions, clearances, contours and the levels indicated in the drawings are approximate and tentative only. He must, fully acquaint himself before submission of tender as to the facilities at site, limitations as to the extent and position of working space, the existing facilities like access, roads etc. for transportation of materials and storing and stacking the same at places within the site and for all other matters concerning the site and affecting the performance of the work. No claim shall be admitted on grounds of site visit as mentioned herein as above.

18. The tender drawings which are available for study shall serve as the scope for the work. They indicate general layout of the site only, the actual location, distance, levels etc. will be governed by the field conditions. The Contractor shall check architectural, structural, water supply and drainage drawings etc. in order to avoid possible installation conflicts. Should drastic changes from original plans be necessary to resolve such conflicts, the contractor shall notify the consulting engineers as well as client project team and secure written approval for necessary adjustment before the installation is started. Discrepancies shown on different plans or between plans and field conditions or between plans and specifications shall promptly be brought to the attention of the consulting engineers for decision.

19. The tenderer shall have to quote for all the items in the schedule of quantities of the tender document. Incomplete tenders are liable to be rejected. The tenderer shall quote unit rate of all items. The quantities indicated in the tender are approximate only. Some of the items may be added, deleted, omitted or altered upon approval from client and consulting engineer, during actual execution of work. Price adjustment will be made accordingly. The owner or his authorized representative shall reserve the right to award the work to one or more tenderers in part or in full. The owner's decision regarding splitting the work amongst more than one tenderer or otherwise shall be binding, conclusive and final.

20 The successful tenderer (contractor) will have to enter into a written contract agreement with the Client on the terms and conditions of the Contract which form part of the tender documents. The contract will be considered valid only after the above agreement is signed by both the parties.

21. The Tender documents should be accompanied by the following documents.

- a) Valid Income tax clearance and GST clearance certificates
- b) Evidence showing experience of identical or similar work with a list stating the Description, Location of the sites with Telephone numbers, name of the Clients, Nature of Contract whether it involves Supply of materials or labor charges only, Date of completion, date of award of Contract, value of the work, etc.

DEFINITION OF TERMS AND GENERAL CONDITIONS OF CONTRACT

1.0 Definition of terms

Unless otherwise specified, the following terms shall have the meaning defined as follows.

- 1.01. The '**CLIENT**' shall mean **M/S MANNAM AYURVEDA CO-OPERATIVE MEDICAL COLLEGE HOSPITAL, PANDALAM**
- 1.02 The '**ARCHITECT**' shall mean **SURESH KUMAR K.S., KADAMBARI KADAKKAD SOUTH, PANDALAM-689501**
- 1.03 The '**CONSULTING ENGINEER**' shall mean **M/s INTELLIGENT BUILDING SYSTEMS**, or this duly authorized representative involved with the design and supervision of the project work as described in the tender and so nominated by the owner.
- 1.04 The '**TENDERER**' shall mean person, firm or corporation who has submitted tender against invitation or his legal representative, successors and assignees.
- 1.05 The '**CONTRACTOR**' shall mean person, individual or firm whose tender has been accepted and to whom work order has been issued.
- 1.06 The term '**CONTRACT**' shall mean and include the notice inviting tender and all pertaining documents; the letter of intent, work order, correspondence exchanged after receipt of tender, drawings and technical specifications.
- 1.07 '**WORK /WORKS**' mean and include all the work specified in the tender, drawings etc. which form part of this contract.

GENERAL CONDITIONS OF CONTRACT

1. Admission to site

The contractor will not be allowed to enter on or take possession of the site until instructed to do so by the consulting engineer /owner. Subcontracting/subletting of the work shall be done by the contractor with the full knowledge and approval of the owner only. The owner /consulting engineer shall have the power to exclude from the site any person whose admission thereto may be in his opinion undesirable for any reason whatsoever.

2. Stacking out base lines and levels.

The contractor shall layout his work subject to the approval of the consulting Engineer and shall be responsible for all measurements in connection therewith. The Contractor shall at his own expense furnish all stacks, platforms, equipment, ranges and labor that may be required in- setting or laying any part of the work. The Contractor shall be held responsible for the proper execution of the work to such requirements as may be established or indicated on the drawing etc. The equipment's, tools etc. must be logged during entry and exit.

3. Make and other details of materials

The contractor shall furnish a list of manufacturers selected from the list of approved manufacturers indicated in the tender as well as other details of various materials he proposes to use on the work and this would be subject to the approval of the consulting engineer.

All materials to be used in the installation shall be of the best quality conforming to the relevant I.S. specifications. They must be products of reliable manufacturers of many years standing. All like parts of materials shall be interchangeable. Sample of materials wherever required should be approved by the consulting engineer. The list of recommended critical spare list has to be submitted after commissioning, which has to be before the last payment of the bill.

4. Specifications & Construction drawings

The contractor shall submit to the owner detailed specifications, dimensioned construction drawings covering all items of works. No fabrication/installation shall be put into execution until these specifications and construction drawings are approved by the owner/ consulting engineer. The contractor shall then submit in duplicate corrected shop drawings for final approval. After execution of the contract in full, the contractor shall submit original and three copies of 'As Built' drawings and operating & instruction manuals, before the final payment of the bills.

5. Notice and Fees:

The contractor shall obtain and pay for all permits, licenses, certificates of approval required by all relevant local body/government/statutory authorities and/or organizations. All work of the contractor shall conform to the requirements of local body/government/statutory authorities.

6. Approval of drawing(s) & Installation:

The contractor shall have to take approval of all the drawings from concerned local body/government/statutory authority before starting of work on site and after completion of work/installation, the same shall be got approved by the concerned authority before the

work/installation is put to use. No extra cost shall be payable for complying with such formalities

7. Approval by authorities

The contractor will co-ordinate the inspection/approval by the approving authorities of the work carried out by him for the purpose of compliance, with the necessary regulations issued to him. The contractor shall also supply the necessary drawings/documents for submitting to the approving authorities

8. Prices

The Contractor should quote firm prices for all the items indicated in the schedule of quantities. The prices should be inclusive of all taxes and duties, transportation, loading, unloading, storing and insurance charges. No escalation of prices will be admissible, during the pendency of the contract. TDS will be deducted as per the rules prevailing.

9. Inspection of materials/ works

The owner or his authorized representative shall have all powers to inspect any portion of equipment, materials and workmanship at the contractor works, at site or any other places.

10. Work completion Time

Time of completion of work is the essence of the contract and if the contractor fails to maintain the quality and quantity of work as per the accepted schedule, the owner will be free to cancel the contract and execute the works through other agencies at the risk and cost of the contractor.

11. Extension of time

If the contractor fails to complete the works within the stipulated time period for reasons beyond his control, he should apply in writing for extension of time to the owner. If the owner is satisfied with the reasons thereof, he may grant reasonable extension of time for completion of works with /without penalty

12. Power to make alterations

The owner shall have the power to make in writing any alterations, omissions, additions or substitutions to the original specification, drawings, designs, patterns and instructions that may appear to him necessary or advisable during the progress of work and the contractor shall be bound to carry out the work in accordance with the instructions which may be given to him by the owner or his representative, such alteration, omissions, additions, substitutions shall not invalidate the contract. Any altered, additional or substituted work which the contractor may be required to do in the manner specified above shall form part of the main contract and shall be carried out by the contractor on the same terms and conditions.

13. Extra items of supply/works

If the rates for such additional, altered or substituted work are not directly available in the contract agreement, the rates for similar work as specified in the contract shall be adopted.

Extra items of material and work outside the scope shall be supplied and works executed on mutually agreed rates.

14. By laws

The contractor shall comply with by-laws, rules and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fees and other charges as also giving and receiving of all necessary notices. The owner shall be kept informed of the said compliances with by-laws, payment made and notices issued and received. Each item of installation shall be as per the latest rules and regulations of

- 1) National Building code
- 2) Indian standard specification
- 3) Any other relevant regulation of Kerala Government / local / statutory bodies.

15. Billing/ Payments

The contractor shall submit progressive running account bills to the owner for supply and installation of the equipment and materials on works contract basis. Payments shall be made as installed at the site, measured and certified.

- Progress bills shall be submitted to Company Project Engineer on 1st of every month.
- Certification on bills shall be based on checking with Approved Shop Drawings
- Certified Bills by the Company engineer will be paid to the contractor in 15days period.

16. Performance Guarantee

All equipment and entire installation shall be guaranteed to yield the specified ratings and design conditions as per the standards (NBC, IS and KMBR). Any equipment not measuring up to the specified ratings as determined by the test readings shall be rejected and its replacement to be brought up without any delay in the work.

17. Defects Liability Period

All equipment and entire installation shall be guaranteed for satisfactory operation and performance as also against defective materials and workmanship for a period of 36 months reckoned from the date of commissioning and handing over along with 3 sets of complete documents including as built drawings, operating manuals etc. which will be valid after the signature of the contractor, consultant and the client. During the defects liability period, the contractor shall rectify, reconstruct repair/replace any defective portions of the works and components free of all costs to the owner. The defects liability period shall apply to the portions of the works so replaced /received. All items (i.e. GST bill, warranty documents) to be invoiced in the clients name. If any defects be not rectified by the contractor within a reasonable period the owner may proceed to do the work at contractor's risk and cost but without prejudice to any other rights which the owner may have against the contractor in respect of such defects.

18. Safety regulations

The work site should always be kept clean and all necessary safety precautions should be taken by the contractor as per the Health & Safety manual of the Department of labour & skills by the Government of Kerala.

19. Work treated as complete

- i) The site is clear from all materials site shed etc. and the owner/ consulting engineer is satisfied with the job done by the contractor

- ii) The contractor has submitted the reconciliation statement regarding the materials received from the "Owner" and all the surplus and salvaged materials are returned to the stores.
- iii) All equipment, tools, plant etc. taken from the "Owner" has been returned by the contractor.
- iv) Any other materials, taken on loan/ transfer from other agency have been returned by the contractor.
- v) All power and water supply connections taken for the execution of the works have been disconnected by the contractor.
- vi) Rectifications of any damage done by the contractor to the works executed and consequential damages have been satisfactorily rectified by the contractor.
- vii) The works shall not be considered as complete until the owner/ Consulting Engineer has certified in writing that they have been completed and the Defects Liability period shall commence from the date of such certificate.

20. Settlement of Disputes

All disputes and differences arising out or in connection with the contract whether during the progress of work or after completion shall be referred to and settled by arbitration by two arbitrators, one to be nominated by the contractor and one to be nominated by the owner. In the event of the arbitrators disagreeing, it shall be referred to an umpire to be nominated by the two arbitrators before proceeding with the arbitration. The decision of the umpire shall be final and binding on both the parties. For the purpose of this clause, the provisions of the Indian arbitration Act 1996 and relevant amendments shall be applicable.

21. Jurisdiction

All matters arising out of or any way connected with this agreement shall be deemed to have arisen in Kochi and only the courts in Kochi shall have the jurisdiction to determine the same.

SPECIAL CONDITIONS OF CONTRACT FOR SUPPLY AND ERECTION

1. Special conditions in conjunction with other documents:

Special conditions of contract shall be read in conjunction with the Technical specifications, Drawings, schedule of quantities and other documents forming part of this contract wherever the context so requires.

2. Special conditions to override general conditions in case of variance:

Where any portion of the general conditions of contract is repugnant to or at variance with any provisions of the Special conditions of Contract, then unless a different intention appears, the provisions of the Special conditions of Contract shall prevail.

3. Construction drawing

The Contractor shall submit to the Owner/ Consulting Engineer detailed specifications, dimensioned Construction drawings etc.

No fabrication and installation should be put into execution until these specifications and construction drawings are approved by Consulting Engineer and local bodies. The Contractor shall submit in duplicate these documents for checking and verification by the Consulting Engineer. The contractor shall then submit in duplicate corrected shop drawings for final approval. After the execution of the contract in full, the contractor shall submit in triplicate "AS BUILT" plans and operating & Maintenance instruction manuals.

4. Prices & Rates quoted in the Tender documents

The Prices & rates quoted in the Tender documents should be inclusive of GST as well as other incidentals, besides transportation costs, loading & unloading, storage charges at site and also insurance charges. It shall be exclusive responsibility of the Contractor to comply with all statutory obligations/ formalities and make contributions to the concerned statutory authorities in connection with sales tax, PF act, ESI Act and /or any other statute for the time being in force. The Owner/ Client shall have absolute powers to recover from the Contractor any sum paid by the former to any statutory Authorities on behalf of the contractor.

TDS will be deducted from every payment as per provisions of Section 194C/ or other section of the income tax act and the rules framed there under.

5. Work Programme

A detailed programme for the execution of the work shall be prepared by the contractor and submitted to the consulting Engineer within 7 days from the date of issue of letter of intent/award of work. The work covered by this contract shall be completed in all respects within three month from the date of award of work, failing which liquidated damages/ penalty @2.5% (two and half percent) of the full contract value will be levied per week of delay, limited to a maximum of 5% of the full contract value.

6. Site Work Co-ordination

The Contractor should co-ordinate with all the others works being carried out at the site so that conflicts are foreseen in advance. The work programme at the site should be prepared in advance and planned based on the completion date mentioned. If any information/work

front /drawings are not available at the time of carrying out the work, these are to be informed to the Client/ consulting Engineer immediately.

7. Payments

For payment, all necessary bills and dimension/measurement sheets certified by the Consulting Engineer shall be submitted to the Owner by the Contractor. Bill shall be submitted at a maximum of once in a month.

a) For supply Erection, Testing & Commissioning of materials

60% of the supply and erection value of the material shall be paid against supply of materials at the site.

15% of the supply and erection value against erection of the items.

15% of the supply and erection value shall be paid after inspection and testing of the installation by the owner/concerned authorities.

5% of the supply and erection value shall be paid after a trial period of three months operation from the date of commissioning.

5% of the supply and erection value of the total work completed will be retained as security deposit for the warranty period.

b) For Erection, Testing and Commissioning clients materials

80% of the erection value of, the material shall be paid against erection of material at the site.

10% of the value of the work completed shall be paid after inspection and testing of the installation by the concerned authorities.

5% of the erection value shall be paid after a trial period of three months operation from the date of commissioning.

5% of the value of the total work completed will be retrained as security deposit for the warranty period

8. Supply of clients materials for erection.

The owner will arrange to purchase major equipments and other materials as per mutually agreed schedule of quantities and items. These will be stored at the site and will remain in the custody of the owner. Materials will be issued to the contractor based on requisition form duly signed by contractor's authorized representative. The balance materials after erection of equipment if any shall be daily returned to the owner's store and accounted for in their books.

9. Period of final measurement

The final measurement shall be taken within 15 days from/after completion of the work and satisfactory testing and commissioning.

10. Security deposit / Retention amount

The total amount that will be retained from the contractor as security deposit shall be 5% (five percent) of the total value of the contract. This amount will be released after the completion of the defects liability period.

5% Performance Bank Guarantee shall be submitted by the Contractor to the company along with award of Contract for the period ending DLP.

11. Warranty period/Defects Liability Period

The warranty period shall be as per the clauses mentioned in the technical specification. The contractor's technician shall be available at site during this period. And will be considered valid only after the signature of the contractor, consultant and the client.

12. Insurance

The contractor shall take out comprehensive transit - cum - erection insurance cover for the works and personnel employed by him against accident and risks and will be held fully responsible for any claim connected with the same.

SCHEDULE OF QUANTITIES AND RATES FOR SOLAR PLANT INSTALLATION						
Project : MANNAM AYURVEDA CO-OPERATIVE ME		Ibs Std. Format No		: IBS26001-ELE-BOQ-400		
Project Number : IBS26001		Originator		:CK		
Project Location : PANDALAM		Revision		: R0		
Client :DIRECTOR MANNAM AYURVEDA CO-		Date		: 10.07.2026		
Architect : SURESH KUMAR KS		No of Floors		: G+1		
SL.NO	DESCRIPTION					
A	SOLAR TECHNICAL DETAILS (NON DCR compatible)					
						Remarks
1	PV Module Make (DCR APPROVED makes only)		Make		Specify	
2	Solar Plant Capacity (Minimum 100KW)		KWp		Specify	
3	PV Module Capacity (TOP CON, Minimum 580Wp)		Wp		Specify	
4	Place of Manufacture		Place		Specify	
5	Total Area available for Solar Installation		Sq Mtr		800	
6	Number of Modules		Nos		Specify	
7	Solar Panel Module Size		L X B		Specify	
8	Product Warranty		Yrs		Specify	
9	Inverter Make		Make		Specify	
10	Inverter Capacity (Minimum 80KW)		KW		Specify	
11	Standard Inverter Warranty		Yrs		Specify	
12	Solar Panel Optimizers		YES/NO		Specify	
13	RAL UV glands must be used					
14	Standard Optimzer Warranty		Yrs		Specify	
15	Software with license/remote monitoring		NOS		1	
16	Average Solar Power Generation Per Day		KWh per KW peak		Avg of 4.5 units	
17	Performance Warranty of Solar Panels : (Solar Contractor to ensure that average of 4.5Units is delivered per day per KW peak for first 2 Years. During this time, periodic maintenace of the panels (Bi-Monthly) to be done from contractor side)		100% power output for first 2 years (Avg of 4.5 units per KWh per At End of 10 Yrs - Power degradation not to exceed more than 10 %			
At End of 25 Yrs - Power degradation not to exceed more than 20 %						
18			Performance BG/Retention: (10 % of System Supply cost will have to be provided as Bank Guarantee/Retention for a period of 1 Year from the date of commissioning of Plant)		Yield Per KWp of installed capacity per Annum	
			3.8 Units & above Per		100%	
			3.5 - 3.8 Units & above Per		80%	
			3.2 - 3.5 Units & above Per		60%	
			3.0 - 3.2 Units & above Per		50%	
19	Delivery Period		Weeks			
COMMERCIAL						
SI.NO	DESCRIPTION		UNIT	QTY	RATE	AMOUNT
A	SUPPLY AMOUNT FOR ITEMS COVERED IN 1 TO 19		LS	1		

SI.NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	<u>BUILDING STRUCTURE</u>				
	Area for panel installation by RCC flat roof. Contactor has maintain the supporting structure of the panel shall be minimum height of 2.5meter at lowest point . Design, supply, fabrication erection testing & commissioning STAD Pro approved GI structure with 5 years warranty. (a)For GI structure:- ETCH primer, primer & PU finish paint, OR Hot dipped GI prefab struture . All fastners must be anti corrosive .For fixing PV module mouting 'J' bolt is preferred for avoiding drilling the structure. Provide walkway if required , panel cleaning water jets etc. (Contractor has to submit signed copy from the structural engineer before execution, Chemical Anchoring should be done for roof anchoring)	LS	1		
C	<u>ANCILLIARY ITEMS</u>				
	Supply & installation/laying of following items, DC DB with SPD & Breakers MC3/MC4 Connectors approved KWh production meter for solar. Copper cables for DC connections (Modules to Inverter, DC copper cables shall be tinned 1000V,120degree EB cable) PVC conduits & cable Tray Works Lightning Arrester with earth pits, chemical compound Earthing and its accessories	LS	1		
D	<u>SWITCHBOARDS.</u>				
	Supply, Design, Fabrication, Erection , Testing and Commissioning of following Cubicle type, fully compartmentalised LT Switchboards dust tight and vermin proof, fabricated out of 16 SWG CRCA sheet, chemically treated and painted with 2 coats of primer and two coats of stoving enamel paint of approved shade. The Switchboards should have a Set of suitably rated TPN Aluminium busbars with the specified current and fault level, Insulated with heat shrinkable, color coded PVC Sleeves and supported using DMC/ SMC Pillar or Finger type busbar supports. The design should be as per the standards of the State Electrical Inspectorate. All indication lamps should be LED type, all MCCBs should be with rotary handle				
	<u>AC SOLAR PANEL</u> Supply, fabrication,erection, testing commissioning of AC solar panel as per the requirement.(Specify the Incoming & outgoing breaker details)	NOS	1		

[illegible]

MANUFACTURE OF MATERIALS FOR SOLAR INSTALLTION WORKS		
SL NO.	ITEM	MAKE
1	MCCB,ISOLATORS,STARTERS,CONTACTORS,O/L RELAYS	L & T
		SIEMENS
		SCHNEIDER
		LEGRAND
		ABB
2	CRIMPED TYPE CABLE SOCKET	LOTUS / JAINSON / DOWELLS
3	CABLE GLANDS	COMET/HMI
4	INDICATION LAMPS	L&T / ELCOM / RECOM
5	MULTIFUNCTION METERS	L&T/CONZZERV/SECURE/ C & S/SOCOMEK/RISHUB
6	LT SOLAR METER	L&T /SECURE
7	CT'S	KAPPA / AE / INTRANSE/ SOCOMEK/RISHUB
8	RELAYS	GE / L&T / C&S
9	ARMOURED CABLE	GLOSTER / POLYCAB/ FINOLEX /HAVELS/LAPP
10	DC PV-UV PVC XLPE CABLE	LAPP
11	SPD	OBO/HAKEL/DEHN/MERSEN
12	LIGHTNING ARRESTER	OBO/CAPE
13	EARTHING CU RODS	OBO/CAPE
14	PVC CONDUITS - LIGHT/MEDIUM/HEAVY DUTY ISI GRADE AND ACCESSORIES	PRECISION/ANCHOR/AVONPLAST/ BALCO/KONSEL/POLYCAB
15	CABLE TRAY/ TRUNKING	OBO/FIXOTECH
16	WHEATHER PROOF IP65/66 ENCLOSURES	HENSEL/MANEKKES
17	1000V DC CONNECTORS	PHOENIX CONTACT/WAGO

LEGEND

SYMBOL	DESCRIPTION
	2.25M(L)x1.14M(W) 550 W SOLAR PV PANEL
TOTAL NO PANELS -184 NOS	

KEY PLAN :

RD	14.08.2024	DESIGN FOR CONSULTATION	ML	CH
REV	DATE	DESCRIPTION	DWN	CHK

PROJECT:

MANNAM AYURVEDA CO-OPERATIVE
MEDICAL COLLEGE HOSPITAL

CLIENT:

DIRECTOR MANNAM AYURVEDA
CO-OPERATIVE MEDICAL COLLEGE
HOSPITAL

ARCHITECT:

SURESH KUMAR KS

SERVICE CONSULTANT:



INTELLIGENT BUILDING SYSTEMS

CCCRA-19, Door No - 35/181 A1,
Changampurba Road, Edappally P.O, Kochi-682024
Ph: 0484 2538962, email: ibsconsultants@yahoo.co.uk
www.ibscochin.com

DRAWING TITLE:

SOLAR PANEL LAYOUT

PROJECT NO : 8328001

DRAWN : JMS CHECKED : J APPROVED : J

SCALE : 1:50 DATE : 08/08/24 Rev No : 1.00

DRAWING NO : DRAWING_NO

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