Terms of Reference (TOR)

ENERGY FOR HEALTH – ARUNACHAL PRADESH

Agency for Quality & Safety Check of Solar Installation at the Public Health Facilities at Arunachal Pradesh

Title	Request for proposals (RFP) from the Solar agencies/consultants for the quality & safety check of installed Solar DRE systems in public health facilities in Arunachal Pradesh.
Timeline	6 Months (Sep 2025 – Feb 2026)
Expected area of expertise	Solar agencies/consultants for the quality check
Link for Application	https://forms.gle/eB54jL5FU3fu1z9x8

About SELCO Foundation:

SELCO Foundation's mission is to create a platform of solutions that uses sustainable energy as a catalyst to bridge environmental sustainability and poverty alleviation. With holistic development as the primary focus, the organization strives to create equitable societies, where services are accessed by all communities. The interventions of SELCO lead to a sustainable delivery model of essential services like livelihoods, education, and health till the last mile. (Read more about SELCO here: http://www.selcofoundation.org/)

1. **Summary of the project:**

As a part of its "Energy for Health" program, SELCO Foundation aims to strengthen health services delivery through the deployment of decentralized sustainable energy solutions for health centers in Arunachal Pradesh.

The SELCO Foundation plans to have a quality and safety check of installed Solar DRE systems in public health facilities in Arunachal Pradesh. The process should be, by visiting the health facilities physically and filling prerequisite check list and recording all other issues/suggestions/feedback taken from the health facility staff along with observations made.

Proposals (Technical & Financial) from eligible Solar agencies/ consultants are invited to conduct Quality check at the public health facilities as mentioned in the TOR.

2. **Goals and Objectives**

S.No.	Objective	Methodology
1.	Quality of installations	• Visual/physical inspection for compliance of the installation with reference to the approved SLD/Design/BOM/Other specified instructions as laid down in the agreement/Work order and associated Documents which are signed of between SELCO

		Foundation and the Vendor. Complete the inspections following the check list provided in Annexure 1. ● Recording of the plant electrical performance should be a part of the monitoring process. ● Verifying the load connectivity with the solar system in comparison with the load details with the sheet. ● Verifying the working of connected loads and sockets
2.	Capacity and Awareness of Healthcare staff	Evaluation of the health staff on below given points: - ● Knowledge of basic system functioning, it's limitations and purpose ● Knowledge of best practices (cleaning, battery maintenance, safety) ● Knowledge of disconnect switches. ● Information and process of reporting complaints ● Challenges (if any) ● Any unmet energy needs. ● Training programs (if any)
3.	Servicing and Maintenance	● System and equipment warranties
4.	Safety Assurance	Verify that all electrical connections and components meet safety standards to prevent hazards such as electrical shocks, fires, and system failures.
5.	Detection of Unauthorized Modifications	Quality checks should reveal any unauthorized changes or tampering made to the system, in reference to the original design and installation practice.

3. Scope of Work

The scope of work for the quality check of an installed solar system involves a comprehensive evaluation to ensure that the system meets all design specifications, safety standards, and performance expectations. The quality check should cover various aspects including visual inspections, electrical measurements, performance tests, and documentation review.

- The team is required to visit the 393 Health facilities in Arunachal Pradesh as outlined in Annexure No. 1F.
- The inspection report needs to be thoroughly completed, to ensure all checkpoints are filled.
- Completing the checklist involves accurately recording the available information acquired through physical visits to the health facility and in close coordination with the staff.
- To ensure thorough inspection, it is imperative to meticulously review and assess each component of the solar system by referring to the documents outlined in Annexure 1 chart. Also, Annexure 1 Chart A & B documents should be duly filled, in references made with Annexure 1 chart documents: 1C, 1D, 1E, 1F.

Sl. No	**Annexure 1 Chart**	
1	Annexure-1 A	Solar Installation Monitoring Checklist
2	Annexure-1 B	Monitoring Observation Report
3	Annexure-1 C	SLD for solar system
4	Annexure-1 D	Load Details, SLD/Concept sheet for Load wiring
5	Annexure-1 E	Bill Of Materials of Solar system, Luminaries & fans, Load Wiring
6	Annexure-1 F	List of Health Centers

- Record detailed recommendations, feedback, suggestions, and issues in the provided format for comprehensive follow-up and develop a corrective action plan for identified issues.
- The team or person visited should be easily accessible to provide explanations for any clarifications needed regarding the checklist or provided information.
- The visiting team is advised to maintain respectful and attentive interactions with health staff.
- The monitoring should be done without disturbing the medical services and without disturbing the patients.
- The monitoring should be done without damaging the physical infrastructure of the health facility, and if so, the agency is liable for repair of the same
- The individual must inform the SELCO Foundation immediately if any urgent or major rectification is required.
- The final payment will be initiated only after the complete closure of the project (I.e., all the inputs required by Selco foundation are fully furnished and validated. Incorrect and incomplete inputs will be considered invalid)
- The team should be available for online meeting discussions as and when called for.
- If staff are unaware of the basic system functioning, it would be the responsibility of the agency to provide basic orientation to staff on the points mentioned above and document to same.
- Prior coordination/appointment with staff of respective health facility should be compulsorily made, in order to avoid revisits to the same site (Revisits to health centers and the expenses incurred for the same will be the taken care by the vendor/monitoring team and it will not be in the scope of SELCO Foundation to entertain such requests)
- Agency is responsible to arrange all necessary tools & accessories required to complete the quality check it includes but does not limit to Ladder, Meters, Electrical Equipment, Safety Equipment, Raincoat, ID Card, etc.

4. Requirement:

- The team is expected to provide the checklist, preferably in MS Excel format, along with Photos and its respective comments made. Raw data sheets along with the final digitized formats would be required.
- After every visit, district-wise subfolders containing all the relevant information should be uploaded into the specified folder created by SELCO Foundation within 5 working days, failing which the uploaded file will be rejected.
- To ensure the task is completed within the given timeframe, adequate team members must be available and must look after their own transport, food, and lodging arrangements.
- The Team members should be over 18+ years of age.
- The team members should possess qualifications such as ITI, Diploma, BE, etc., and preferably should have experience in solar installation and maintenance activities. The biodatas of the assigned personnel are to be shared with SELCO Foundation prior to work initiation.
- The details of the tour plan and the information about the team members are to be shared with SELCO Foundation as per the agreed-upon timeline. Day wise updates (Travel plan, Task completion) should be compulsorily shared with SELCO Foundation on a regular basis.

5. Timelines:

15th September 2025 to 28th February 2026

6. Selection Criteria:

- The agency/consultant should have at least 3 - 5 years of proven experience in solar installation, Monitoring, design.
- Demonstrated experience of rectification in various sized solar plants
- Experience in preferably working with public health facilities.
- This assignment would require travel to project sites in Arunachal Pradesh. **Knowledge on local terrain and area is mandatory.**

7. Payment Terms:

30%	After signing the contract

20%	After completion of 50% of the site Quality and Safety Check and on submission of Quality and Safety reports in format approved by SELCO Foundation against approval from Authorized Personnel.
20%	After Completion of 80% of the site Quality and Safety Check and on submission of Quality and Safety reports in format approved by SELCO Foundation against approval from Authorized Personnel.
30%	After 100% completion of the site Quality and Safety Check and on submission of Quality and Safety reports in format approved by SELCO Foundation against approval from Authorized Personnel.

8. To apply

Interested consultants / organizations, with relevant experience (please include samples and/or references of the previous similar work as proof of experience) and based out of India are requested to reach out with a detailed proposal giving a brief on the methodology and the process they will uptake for this project, including budgets (with break-ups and explanation), timelines and milestones and submit the same to google form on before **5th September 2025 by 5 PM.**

Any further queries please write to procurement@selcofoundation.org with a subject line: "**Agency for Quality & Safety Check of Solar Installation at the Public Health Facilities at Arunachal Pradesh."**

Note: Any emails without the above subject will not be answered/rejected.

Refer Terms and Condition:

1. **Sub-contracting:** In the event that the Consultant requires the services of subConsultants to perform any obligations under the Contract, the Consultant shall obtain the prior written approval of the Foundation. Any rejection or non-performance of the subConsultant shall not, in and of itself, entitle the Consultant to claim any delays in the performance, or to assert any excuses for the non-performance, of any of its obligations under the Contract, and the Consultant shall be solely responsible for all services, obligations and deliverables performed by its subConsultants.

2. **Quality Assurance**
   The data submitted to SELCO Foundation should be accurate, complete, reliable, and relevant. Consulting agencies shall establish additional layers for data cleaning and submission.

3. **Financials & Reporting**
   TDS will be deducted on the fixed amount as per Income Tax Act and Rate of Percentage. In accordance with the Central Board of Direct Taxes circular No. 7 of 2022 dated 30th March, 2022 in relation to the clarifications with respect to Section 114AAA of the Income-tax Rules, 1962, failure to link Aadhar number to the PAN card and/or failure by any person, who falls within the income tax bracket or otherwise, to file tax returns in relation to payment of TDS for any service (in accordance with Section 206AB and 206AA) and/or an inoperative PAN card will result in a 20% tax deduction.

4. **Indemnification**
   Both parties shall indemnify and hold its Trustees, Directors and representative officers, employees, agents harmless from and against any and all claims, demands, actions, losses, liabilities, charges, damages, costs and expenses (including but not limited to reasonable attorney's fees) arising out of or resulting from (1) any claims arising in connection with activities undertaken by both parties in connection with the project or (2) Consultant's gross negligence or willful misconduct or breach of any undertaking, covenant, representation or warranty contained in this agreement and/ or the actual infringement of any patent, trademark, copyrights, trade secret or any other intellectual property right of the third party.

5. **Patent, Copyright and other Proprietary Rights**

(i) Except as is otherwise expressly provided in writing in the Contract, the Foundation shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Consultant has developed for the Foundation under the Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the Contract. The Consultant acknowledges and agrees that such products, documents and other materials constitute works made for hire for the Foundation.

(ii) Subject to the foregoing provisions, all documents, reports, recommendations, documents, and all other data compiled by or received by the Consultant under the Contract shall be the property of the Foundation, shall be made available for use or inspection by the Foundation at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to the Foundation's authorized officials on completion of work under the Contract

(iii) The Consultant will treat all information given to him/her as information of proprietary value and will not disclose the same to competitors or any outsiders. The Consultant will not at any time, except under legal process, divulge any trade or business secret relating to the Foundation or any customer or agent of the Foundation, which may become known to him by virtue of his position as consultant, save in so far as such disclosure shall be necessary in the interest and for the benefit of the said Foundation and will be true and faithful to the Foundation in all dealings and transactions whatsoever relating to the said Foundation.

(iv) Reports or other data that are developed specifically for the performance of this Contract shall be the property of the Foundation and the Consultant shall deliver reports and data to the Foundation as per the milestones. Dissemination of the reports and any information from the said contracts shall be done with written approval from the Foundation.

6. **Publicity, use of name & Logo of the Foundation:** The Consultant shall not advertise or otherwise make public for purposes of commercial advantage or goodwill that it has a contractual relationship with the Foundation, nor shall the Consultant, in any manner whatsoever use the name, emblem, logo or official seal of the Foundation or that of SELCO in connection with its business or otherwise without the written permission of the Foundation.

7. **Observance of Law:**

8. The Consultant will comply with all applicable laws, rules, regulations and statutory requirements and amendments thereof during the term of this Contract.

9. The Consultant represents and warrants that at the Execution Date the Consultant is not engaged in any unethical business practices or any practice which is against the integrity or sovereignty of India. Consultant also represents and warrants that on the Execution Date there is no pending litigation or any other charge, whether civil or criminal, against Consultant that will significantly impair the ability of the Consultant to perform its obligations under this Contract. The Foundation reserves the right to perform a background check at its discretion and the Foundation hereby waives any liability that may arise out of misrepresentation by the Consultant. Consultant also agrees to indemnify the Foundation for any liability that may arise out of such misrepresentation.

10. The Consultant will, its parent entities, partners or subConsultants nor any of its subsidiary or affiliated entities (if any) is engaged in any practice inconsistent with the rights set forth in the Child Labour (Prohibition and Regulation) Act of 1986, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

11. The Consultant will not engage in any activity that will result in forced or compulsory labor under applicable laws including the Bonded Labor System (Abolition) Act, 1976,

12. Consultant will act in accordance with applicable laws and regulations and will not violate the rights of laborers as stated in The Factories Act, 1948 and similar legislations.
13. Working hours, wages and benefits shall be provided by the Consultant to its staff and employees in accordance with applicable laws including the Minimum Wages Act, 1948.
14. Consultant represents and warrants to the Foundation that, as on the date of signing of this Purchase Order, it is neither blacklisted/ debarred nor it is under a declaration of ineligibility by Central / State or Semi-Government Organization/Department or Institutions and Public Sector Undertakings in India and abroad. Consultant further undertakes to duly inform the Foundation in the event it is blacklisted subsequent to execution of this Purchase Order.
15. Compliance with Anti-bribery Laws: Consultant and each of its directors, officers, employees, agents or other (collectively referred to as "Consultant") represent and warrant that it shall not either directly or on behalf of the Foundation give, offer, promise to offer, or authorize the offer, directly or indirectly (proxy bribing), anything of value (such as money, shares, goods or service, gifts or entertainment) to government officials, government customers, potential government customers or foreign government officials including officials of any public international organizations or officials of any political party either in India or abroad ("Officials") with an Intent to influence any act or decision in his or her official capacity Induce the Official to do or omit to do any act in violation of his or her lawful duty to obtain any improper advantage, or Induce to use such Official 's influence improperly to affect or influence an act or decision.
16. The Consultant shall not provide any offering, promising, giving or receive, solicit or accept a financial or other advantage, or any other thing of value, with the intention of influencing or rewarding the behavior of a person in a position of trust to perform a public, commercial or legal function to obtain or retain a commercial advantage.
17. Consultant understands and acknowledges that any non- adherence to the warranty as stated herein above will be violation of the provisions of the Indian Prevention of Corruption Act,1988 and other applicable laws and legislations ("Anti-bribery Laws").
18. In addition, Consultant agrees to promptly report to the Foundation of any incident of breach or potential breach of this section.
19. Compliance with Sexual Harassment of Women (Prevention, Prohibition & Redressal) Act, 2013 (PoSH): The Service Provider shall agree to adhere to the mandates prescribed under the Sexual Harassment of Women (Prevention, Prohibition & Redressal) Act, 2013, which requires all workplaces to have a Policy and Internal Committee to address complaints of sexual harassment that women may face at the workplace.

20. Termination:

Either party may terminate this contract by giving a notice in writing to the other party stating their intention to terminate the same on the expiration of Fifteen (15) days from the date of such notice. In addition, the Foundation may also terminate this contract forthwith in the event of any fraud, misconduct or neglect of duties on the part of the Consultant. Any notice to be given hereunder shall be sufficiently given to the Consultant if forwarded by registered post or by Courier Service to the last known postal address of the Consultant and shall be sufficiently given to the Foundation if similarly forwarded to the registered office. Upon the termination of this contract and payment of the said fees due up to such termination, and payment of all disbursements and out-of-pocket expenses incurred up to the date thereof (provided the same have been incurred after obtaining prior approval), the Consultant shall deliver all deeds, documents and paper in his possession relating to the business of the Foundation or as the Foundation shall direct, and shall continue to afford him all reasonable assistance for concluding pending matters at the date of such termination without making any charge thereof.

21. Force Majeure:

(i) *Force majeure* as used herein means any unforeseeable and irresistible act of nature, any act of war (whether declared or not), invasion, revolution, insurrection, terrorism, or any other acts of a similar nature or force, *provided that* such acts arise from causes beyond the control and without the fault or negligence of the Consultant

(ii) In the event of and as soon as possible after the occurrence of any cause constituting *force majeure*, the affected Party shall give notice and full particulars in writing to the other Party, of such occurrence or cause if the affected Party is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under the Contract. The affected Party shall also notify the other Party of any other changes in condition or the occurrence of any event which interferes or threatens to interfere with its performance of the Contract. Not more than fifteen (15) days following the provision of such notice of *force majeure* or other changes in condition or occurrence, the affected Party shall also submit a statement to the other Party of estimated expenditures that will likely be incurred for the duration of the change in condition or the event of *force majeure*.

(iii) On receipt of the notice or notices required hereunder, the Party not affected by the occurrence of a cause constituting *force majeure* shall take such action as it reasonably considers to be appropriate or necessary in the circumstances, including the granting to the affected Party of a reasonable extension of time in which to perform any obligations under the Contract.

(iv) If the Consultant is rendered unable, wholly or in part, by reason of *force majeure* to perform its obligations and meet its responsibilities under the Contract, the Foundation shall have the right to suspend or terminate the Contract on the same terms and conditions as are provided for in this Contract.

22. Both the Foundation and the Consultant fully and freely intend to create an independent Consultant relationship under this Contract. Nothing herein shall be deemed to establish a partnership, joint venture, association or employment relationship between the parties. Both parties agree that the consultant has the right to sole and exclusive control over the manner and means employed in performing their activities under this Contract.

23. Settlement of disputes:

(i) The Parties shall use their best efforts to amicably settle any dispute, controversy, or claim arising out of the Contract or the breach, termination, or invalidity thereof.

Any dispute, controversy, or claim between the Parties arising out of the Contract or the breach, termination, or invalidity thereof, unless settled amicably, within sixty (60) days after receipt by one Party of the other Party's written request for such amicable settlement, the matter shall be referred by either Party to arbitration in accordance with the Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be Bangalore. Likewise, the jurisdiction will vest with courts in Bangalore.

Annexures

Annexure-1A

Solar installation monitoring checklist				
Sl. No.	**Observation point**	**If "Yes", then mark with (✓)**	**If "No", then mark with (X)**	**Remarks if any:**
Solar Panels Setup				
1	Number of panels used in the installation matches with the number of panels mentioned in the B.O.M. sheet			
2	Panels installed have the same technical specifications as mentioned in the B.O.M. sheet			
3	Serial numbers & bar codes are present inside the panels			
4	Discoloration of the solar panels are not seen			
5	Damages are not seen on the solar panels (Both front & back sides)			
6	The solar panels are free from shadows			
7	Cables are tied to panel frame and are protected with conduit pipes			
8	Panels are mounted well within the roof area			
9	Panels are clammped and firm & stable			
10	R.C.C. roof, low elevation set-up: The wind shields are firmly fastened at the back of panels, along with concrete works/ballast blocks			
11	R.C.C. roof, regular set-up: Front side clearance from the roof surface and the panel is 2-feet			
12	R.C.C. roof, regular set-up: The length of concrete work is 1 ft. x 1 ft. x 1 ft. (LxBxH)			
13	R.C.C. roof, high elevation set-up: The length of concrete work is 1.5 ft. x 1.5 ft. x 1.5 ft. (LxBxH)			
14	The orientation of the panel is south facing (For sites in India)			
15	Tilt angle of the panel is as per the latitude of the location			
16	Tin roof: 4-Inch uniform elevation from the sheet roof and the panel is seen			
17	Tin roof wind deflectors: Wind deflectors are firmly fastened at the back of panels			
18	Tin roof: E.P.D.M./Silicone gel/Butyl sealant used			
19	M.M.S. & Panel are given earthing protection			
20	4 Sq. mm cable from panel-panel-M.M.S. are used, and 10 Sq. mm cable from M.M.S. to A.J.B. is used			
A.J.B. (Array Junction Box) Setup				
1	A.J.B.s have the same technical specifications as mentioned in the B.O.M. sheet			
2	Positive & negative lines are separated with separate termination blocks			
3	Positive lines have the in-line fuses provided			
4	PV1-F cables are used			
5	Cables used are of the specifications as mentioned in the B.O.M. sheet			
6	Cable colour codes are followed			
7	All cables are provided with solid conduit pipe protection			
8	A.J.B. is mounted firmly over the wall surface			
9	M.C.B.s, SPDs used in the A.J.B. are of the specifications as mentioned in B.O.M. copy			
10	Earthing down conductor is connected to S.P.D. and D.C. earth pit			
11	There are no physical damages seen at the A.J.B.'s body			
12	A.J.B. glands are tightened			
G.I.P.B. (Grid Input Protection Box) Setup				
1	G.I.P.B.s have the same technical specifications as mentioned in the B.O.M. sheet			
2	Cables used are of the specifications as mentioned in the B.O.M. sheet			

3	Cable colour codes are followed			
4	Cables are provided with solid conduit pipe protection			
5	G.I.P.B. is mounted firmly over the wall surface			
6	Earthing down conductor is connected to S.P.D. and A.C. earth pit			
7	M.C.B.s, S.P.D.s are of the specifications as mentioned in B.O.M. copy			
8	There are no physical damages seen at the G.I.P.B.'s body			
9	G.I.P.B. glands are tightened			
Battery Bank Setup				
1	No. of batteries used in the installation matches with the no. of batteries mentioned in the B.O.M. sheet			
2	Batteries have the same technical specifications as mentioned in the B.O.M. sheet			
3	Batteries have the serial number & barcode over them			
4	No physical damages are seen at the battery body			
5	Battery bank is placed in a clean, dust-free and dry place			
6	Battery room is well ventilated			
7	2-Inch ventilation space is provided between batteries			
8	There is no direct sunlight falling over the batteries			
9	Acid absorbent mat is provided at both the racks			
10	Petroleum based jelly/Vaseline is applied at all terminals of batteries			
11	Cable lugs are insulated			
12	Battery caps are firmly fixed at each terminal			
13	Battery cable size used should be as specified in the B.O.M. sheet			
14	Conduit pipe protection is provided to cables			
15	Float indicators are not damaged			
16	Distilled water level is up to the green mark of the indicator			
17	There are no fire and flammable materials placed/stored around the battery bank			
18	Minimum cable distance is maintained between battery bank and the inverter (No looping of cables)			
19	Cables don't have sharp bending			
20	Insulation mats are provided			
21	Battery rack setup is as per the specifications mentioned in the B.O.M. sheet			
D.C. Combiner Box Setup				
1	D.C.C.B has the same technical specifications as mentioned in the B.O.M. sheet			
2	D.C.C.B. is mounted firm on to the wall surface			
3	The number of H.R.C. fuses provided are as per the B.O.M. specifications			
4	H.R.C. fuse ratings are as per the B.O.M. specifications			

Annexure-1B

MONITORING OBSERVATION REPORT						
1	Name of Visitor					
2	Date					
3	Visit Number					
4	Date:					
5	Name & Address of Installation site: (Please mention the complete address of the site including Health facility name, address, state, district, block, P.O, Pin code etc.)					
Solar Installation Bill Of Material (AC System)						
Sl. No.	Product	Serial Number	Capacity	Quantity	As per BOM Yes/No	
1	Solar Module					
2	Solar Battery					
3	Module Mounting Structure					

4	Solar Inverter/PCU					
5	Changeover Switch / Bypass Switch - 1					
6	Changeover Switch / Bypass Switch - 2					
7	Copper cable (Module –Module) -PV1-F (Solar cables)					
8	Cables (or) Strips (Battery - Inverter) - (DC Cables)					
9	Copper Cable (Battery - Inverter) - (DC Cables)					
10	Copper Cable (Red + Black) (AJB - Inverter)- (DC Cables)					
11	DC Earthing (Panels + MMS + AJB)					
12	Earthing Cable (AJB, GIPB, Inverter & Battery Rack)					
13	Cable/down conuctor for lightning arrestor					
14	Earthing Kit					
15	Lightning Protection System					
16	Grid Input Protection Box with AC SPD and AC MCB					
17	Battery trolley box with Wheels - Har Plastic					
18	Battery rack with Following: 1. Acid absorbent mat 2. Electrical Insulation mat					
19	Inverter Elevation Leg					
20	DC Combiner Box					
21	Solar Array Junction Box with AC MCB and AC SPD and String Fuse					
22	Load Side AC MCB with Conduit box					
23	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads)					
24	Marking for DC earthing with Elevated Plaques (AJB + MMS + Panels +					
25	Marking of Lightning Arrester Earthing with Elevated Plaques					
26	Single Line Diagram (SLD) for the system					
27	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)					
28	Signboards - Danger (Electric Shock & High Voltage), No Fire and PASS					
29	I/P and O/P wiring of Grid Connection- AC cable					
30	Fire Extinguisher					
31	Metallic enclosures with Isolator's having minimum gap of 1 inch (PV, Battery & Grid Input to Inverter)					
32	Consumables					
Bill of material (For luminaries & fans)						
Sl. No.	Products	Make	Capacity	Installed Quantity	Balance Quantity	Additional Informati
1	LED Bulb					
2	LED Bulb					
3	LED Tube light					
4	LED Tube light					
5	Ceiling Fan with regulators - Two Modular					
6	Wall Mounted Fan					
7	Outdoor light with automatic control switch (For Dusk to dawn operations)					
8	Outdoor light arm - Rust Free (GI Material)					

Sl. No.	System Side As per BOM	Tick Yes/No	Remarks			
1	Solar panel setup					
2	AJB Setup					
3	GIPB Setup					
4	Cables Size as per BOM					
5	Load MCB Rating is Correct					
6	Battery set up					
7	P.C.U set up					
8	L.A setup					
9	Earthing pits					
10	Cable management					
11	SLD's are pasted					
12	Earthing Metal plaque installed					
13	Signboard Installed					
	Date of recording:		Time of recording:			
				(Tick on the appropriate box)		
	Weather Condition at the time of recording	Clear Sky	Partially Cloudy	Over cast	Rainy	
	At the AJB (Input side)					
	Test Condition	Voltage in DC	Measured Value	Current in DC	Measured Value	
	Measurement with Grid OFF + AJB MCB OFF	Voc (in Volts)		NA	NA	
	Measurement with Grid OFF + AJB MCB ON	Vmp (in Volts)	String 1: String 2: String 3: String 4:	Imp (in Amperes)	String 1: String 2: String 3: String 4:	
	At the AJB (Input side)					
	Test Condition	Voltage in DC	Measured Value	Current in DC	Measured Value	
	Measurement with Grid OFF + AJB MCB ON	Vmp (in Volts)		Imp (in Amperes)		
	Battery Bank parameters					
	Particulars	Measured Value	Unit			
	Battery Bank Volatge		V			
	Battery Bank Current		A			
	1- Phase System - PCU/Inverter parameters					
	Measurement with Grid OFF			Measurement with Grid ON		
	Particulars	Measured Value	Unit	Particulars	Measured Value	Unit
	Load voltage/Inverter output voltage		V	Grid input voltage (Phase – Neutral)		V
	Inverter Output Frequency		Hz	Inverter Output Frequency		Hz
	Inverter output current at full load (All solar loads turned on continuously for 10 minutes)		A	Grid input voltage (Neutral- Earth)		V
	3 - Phase System - PCU/Inverter parameters					
	Measurement with Grid OFF			Measurement with Grid ON		
	Particulars	Measured Value	Unit	Particulars	Measured Value	Unit
	Load voltage/Inverter output voltage (Red & Neutral)		V	Grid Input Voltage (Red & Neutral)		V
	Inverter output frequency (Red & Neutral)		Hz	Grid Input Frequency (Red & Neutral)		Hz

	Inverter output current at full load (Red & Neutral) (All solar loads turned on continuously for 10 minutes)		**A**	**Grid Input Voltage (Yellow & Neutral)**	**V**
	Load voltage/Inverter output voltage (Yellow & Neutral)		**V**	**rid Input Frequency (Yellow & Neutral)**	**Hz**
	Inverter output frequency (Yellow & Neutral)		**Hz**	**Grid Input Voltage (Blue & Neutral)**	**V**
	Inverter output current at full load (Yellow & Neutral) (All solar loads turned on continuously for 10 minutes)		**A**	**Grid Input Frequency (Blue & Neutral)**	**Hz**
	Load voltage/Inverter output voltage (Blue & Neutral)		**V**	**Grid Input Voltage (Red & Yellow)**	**V**
	Inverter output frequency (Blue & Neutral)		**Hz**	**Grid Input Frequency (Red & Yellowl)**	**Hz**
	Inverter output current at full load (Blue & Neutral) (All solar loads turned on continuously for 10 minutes)		**A**	**Grid Input Voltage (Blue & Yellow)**	**V**
	Inverter output voltage between Red & Yellow		**V**	**Grid Input Frequency (Blue & Yellowl)**	**Hz**
	Inverter output voltage between Red & Blue		**V**	**Grid Input Voltage (Red & Blue)**	**V**
	Inverter output voltage between Yellow & Blue		**V**	**Grid Input Frequency (Red & Bluel)**	**Hz**

	PCU/Inverter display & setting					
	For both 1-Phase & 3-Phase connectivity					
	Inverter Priority Settings	**Solar Priority**	**Grid Priority**	**(Tick on the appropriate box)**		
	The load is running on:	**Inverter**	**Grid**	**(Tick on the appropriate box)**		
	Changeover Switch settings					
	Changeover switch orientation is:	**Solar**	**Grid**	**(Tick on the appropriate box)**		
	Is change over switch functional for both solar & grid?	**Yes**	**No**	**(Tick on the appropriate box)**		
	Measurements at Sockets (For both 1-Phase & 3-Phase connectivity)					
	Particulars	**Measured Value**	**Unit**			
	Voltage between Phase & Neutral		**V**			
	Voltage between Phase& Earth		**V**			
	Voltage between Earth & Neutral		**V**			
	• **Testing**	**2. Load Wiring**				
	Demo testing of Lines using Temporary Connection					
	Test Condition		**Working Yes/No**	**Remarks**		
	RCCB					
	MCB					
	Socket 16A					
	Socket 6A					
	Switch 16 A					
	Switch 6 A					
	Fan points and Regulator					
	Outdoor Light					
Images to be captured during Solar installation visit:						
Sl. No.	**Image details**	**Required no. of**	**Tick if taken**	**Remarks**		
1	**Clear image of solar panels with Module mounting structure from a range in which gives better visibility (Please capture image with standard marking)**	**2**				
2	**Clear image of batteries from a range in which gives better visibility including the water level (Please capture image with standard marking)**	**1**				
3	**Clear image of inverter from a range in which gives better visibility (Front and back) (Please capture image with standard marking)**	**2**				
4	**Clear image of the inverter switch controls**	**1**				
5	**Clear image of cable routing from the complete system (Please capture image with standard marking)**	**3**				
6	**Clear image of AJB**	**1**				
7	**Clear image of GIPB**	**1**				
8	**Clear image of Lightning Arrestor**	**1**				
9	**Clear image of Earthing pits**	**1**				

10	Clear image of Changeover Switch	1				
11	Clear image of DO's and Don'ts Poster	1				
12	Clear image of Foam Plaques (SLD, High Voltage, PASS, No Fire, Danger, Risk of Electric Shock)					
13	Clear image of Metal Plaque	1				
14	Clear image of Outdoor Light	1				
15	Clear image of the Health Centre (Long Shot)	1				
16	Clear image of Health staff with Solar system	1				
Images to be captured during Load Wiring						
Sl. No.	Image details	Required no. of images	Tick if taken	Remarks		
1	Distribution or MCB Box if Visible	2				
2	Switchboard	3				
3	Socket	3				
4	Fan And Bulb Points	5				
5	Outdoor Point	2				
Data to Be Captured for Solar Installation Side						
Sl. No	Description	Distance in Feet	Remarks			
1	Module to AJB					
2	AJB to Inverter					
3	AJB to Earthing					
4	Inverter & GIPB to Earthing Pits					
5	Earthing Strip					
6	Module to Earthing					

Annexure-1

Sub Centre: Option 1

Bill of Materials for Solar System:

Sl. No	Products	Capacity	Qty
1	Solar Module	Solar Photovoltaic modules of Minimum Capacity 1000 Wp (TOPCON) Panel Make and Model should be approved under MNRE ALMM List	1 Set
2	Solar Battery	Valve regulated lead-acid (VRLA) battery – 150 Ah @ 12 V, C – 10 (Battery terminal caps used, must be big enough to cover the entire terminal area and the nut bolt assembly. Also, spring washers to be used at each battery terminal).	2 Nos

3	Module Mounting Structure (MMS)	Solar PV Module support structure. RCC Roof: Lower elevation/Landscape Orientation (Triangular MMS with concrete block). Inclined Tin Sheet Roof: Mini rail of the following specifications are to be incorporated Anodized aluminium (70 Microns) L x H x W x T – 300mm x 100mm x 40mm x 3mm EPDM tapes with adhesion to be used for each mini rail. Self drilling screws of 2 inches to be used for metal purlins and 3 inches to be used for wooden purlins. Or Triangular MMS(Landscape mode) with EPDM tapes for south orientation. It should withstand the wind speed of 200 – 250 km/hr. It should be suitable for above mentioned solar module - As per Sl.No. 1	1 Set.
4	Solar Inverter/PCU - 230 Vac, 50 Hz	Total Minimum Capacity 1 kVA, 24V – MPPT based Single Phase Supply, With Data Port (RS 485) Output.	1 No
5	Change over switch / Bypass Switch (PCU -Grid - Solar Loads)	16 A, 230 Vac (Single Phase)	1 No.
6	Copper Cable Red+Black (Module – Module - AJB) - PV1-F (Tin Coated Solar Cables)	6 sq.mm UV Protected Cable (Tin-coated copper lugs with insulation to be used at each termination points).	16 m
7	Copper Cable Red +	6 sq.mm (1 IN 1 OUT)	15 m

	Black (AJB - Inverter) - (Tin Coated DC Cables)	(or) 10 Sq.mm (2 IN 1 OUT)	
8	Cables (or) Strips (Battery - Battery) - (Tin Coated DC Copper Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal) (or) Lead coated heavy-duty copper strips not less than 25 micron of lead plating.	1 m
	Copper Cable (Red + Black) (Battery - Inverter) - (Tin Coated DC Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal).	10 m
9	Earthing Cable (Panels + MMS+ Battery rack + Inverter rack)	4 Sq.mm Panel to Panel, Panel to MMS, MMS leg to Main Earthing Terminal (Copper Busbar) Grounding lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	15 m
10	Earthing Cable for COS and Switch Disconnector	1 Sq.mm Grounding Lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	10 m
11	Voltage Sensing Cable (Red) for Remote Monitoring System	1 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	3 m
12	Earthing Cable (AJB, GIPB & Inverter)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at the cable-earth electrode interface).	32 m + 3m

13	Cable/Down conductor for Lightning Arrestor	From Lightning arrestor to ground level: Aluminium cable of 50 sq.mm should be used. (Aluminium lugs with insulation to be used at each termination points)	10 m
		From Ground to Earth pit: Insulated (Outdoor) GI Strip (120 microns) of size 25 x 3 mm should be used. GI strips are to be routed by using DMC saddle insulator. Interconnection of aluminium cable with GI strip will be done by using SS nut and bolt assembly (M6, 304 Grade)	4 m
14	Earthing Kit LA GIPB + Inverter + Load ACDB + Changeover Switch+ Inverter Rack Panels + MMS + AJB + Switch Disconnector+ Battery Rack	Chemical earthing powder (50 kg per pit). Solid electrode (Steel) Bonded copper – 16 mm diameter, 2000 mm long with 250 microns Bonding thickness, tin-coated copper lugs with insulation, SS clamps with SS nut-bolts assembly. protective FRP Chamber with lid should be made. Earthing pit size should be minimum of 6-inch diameter and 2.5-meters long and should be filled with back fill compound. SS flats to be used between GI strips and electrodes. Inter connection of AC and DC earthing pits are to be made using 16 Sq.mm. 2 x Copper Busbar of 6-inch long, 5-hole, 3 mm thick Typology – Equipotential (Refer Annexure 2)	3 Set
15	Lightning Protection System	Lightning arrestor Solid Aluminium Alloy of 15 mm diameter and 2000 mm long with base plate should be used. Bore clamp to be used to interconnect lightning arrestor and down conductor. RCC Roof: GI Elevation pole 40 mm diameter, 3000 mm height. Supporting wires of 4 Sq.mm (120 microns) to be incorporated for stability to withstand wind speed of 200 – 250 km/hr. Bull dog grip to be used to tighten the support wires. Ceramic insulation to be provided between lightning arrestor base plate and GI elevation pole.	1 Set

		1.75 metre distance to be maintained between panel edges and LA Baseplate of elevation pole should be provided with anchor fasteners and to be provided with civil work of size 1.25 x 1.25 x 1.25 feet by L x B x H Inclined Sheet roof: T-based clamp of following specifications to be used Structural material : GI - 120 microns. L – Angle geometry Profile L – Angle thickness – 3mm L- Angle LxB – 37x37mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Vertical pole - 750 mm Support Wire 4 Sq.mm	
16	Grid Input Protection Box with SPD and MCB	MCB Rating: 230 Vac, 16 A (Double Pole) SPD Rating: 275 Vac, Type 2, 40 kA (Double pole with indicators) Inter connection of the components inside the GIPB should be 4 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	1 No.
17	One row Battery rack (Enclosure, door with lock and key) with the following: Electrical Insulation mat (Minimum 0.4 kV)	As per Solar Battery Sl. No. - 2 (Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm	1 Set.

		L- Angle LxB – 35 x 35mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Strips - 25 x 4 mm Enclosure door with Lock and key (Wood supports are not to be used) In the battery rack, each joint should be assembled with GI nut and bolt assembly .(Welding of any sort should be avoided)	
18	Inverter rack with the following: Electrical Insulation mat (Minimum 0.4 kV)	(Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35 mm Hexagonal Nut – M8x20mm Hexagonal bolt - M8x6mm (Wood supports are not to be used) In the inverter rack, each joint should be assembled with GI nut and bolt assembly. (Welding of any sort should be avoided)	1 Set.
19	Solar Array Junction Box with MCB and SPD and String Fuse.	1 IN 1 OUT MCB Rating : 500 Vdc, 25 A (Double Pole) SPD Rating: Uc - 125 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 1 No. Inter connection of the components inside the AJB should be DC cable of 6 Sq.mm (or) 2 IN 1 OUT	1 No.

		MCB Rating : 500 Vdc, 50 A (Double Pole) SPD Rating: Uc - 65 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 2 Nos. Inter connection of the components inside the AJB should be DC cable of 10 Sq.mm	
20	Load Side MCB with Conduit box	MCB Rating: 6 A, 230 Vac (Double Pole)	1 No.
21	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads ACDB + Changeover Switch + Inverter rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
22	Marking for DC earthing with Elevated Plaques (Panels + MMS + AJB + Switch Disconnector + Battery rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
23	Marking of Lightning Arrester Earthing with Elevated Plaques	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
24	Single Line Diagram (SLD) for the system	Sun board with 3 mm Thickness - 4 ft x 2 ft	1 No.
25	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)	Foam Plaque - A4 Size for each	1 No.

26	Signboard for Danger, No Fire and PASS	Danger - Electric shock – A4 Danger - High Voltage – A4 No Fire – A5 PASS - A4	1 No each
27	I/P and O/P wiring of Grid Connection (Red + Black) - AC cable	4 Sq. mm. (Tin-coated copper lugs with insulation to be used at each termination points).	30 m
28	Fire Extinguisher	Multi-Purpose - ABC Dry powder extinguishing agents (or) CO2 type with 3 kg net weight of the charge inside the cylinder.	1 No
29	Metallic Enclosure with Isolator's having minimum gap of 1 inch. (PV, Battery & Grid Input to Inverter)	1st Switch for Battery Input - 50 A, 500 Vdc, Double Pole 2nd Switch for PV Input – 32 A, 500 Vdc, Double Pole (1 IN 1 OUT) (or) 63 A, 500 Vdc Double Pole (2 IN 1 OUT) 3rd Switch for Grid Input – 20 A, 230 Vac, Double Pole	1 Set
30	Consumables	Includes: UPVC pipes and fittings, Flexible pipes, Screws, Nuts and Bolts, Cable lugs etc…	1 Set

Bill of Materials for Load Wiring:

Total Load Points - 16

Sl.no	Item	Description	UoM	Qty
1	AC Distribution Box	6 - Way, Single phase, Double door, Wall mounting type, DIN rail, Neutral busbar, Earth busbar.	Pcs	1
2	Main MCB	6 A, AC, Double pole, B-curve, 10 kA, 230 Vac	Pcs	1
3	RCCB	30mA, 10 A, AC, Double Pole, 10 kA, 230 Vac	Pcs	1

4	Fan Regulator	Electronic, 2-Modular, 5-Level speed control, 80 - 100 W.	Pcs	4
5	Socket (Modular)	3 pin, 6 A, 230 V, (White colour).	Pcs	3
6	Switch (Modular)	6 A, 1-Way, 230 V, (White colour).	Pcs	15
7	16 A Combo Socket with indicators	16 A, 230 V, Socket, FR polycarbonate material (White Colour)	Pcs	1
8	Power Cable - 1 (Red)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	60
	Power Cable - 1 (Black)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	60
9	Power Cable – 2 (Red)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	65
	Power Cable - 2 (Black)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	65
10	Earthing Cable (Green)	1 Sq. mm, EFFR copper cables. (Interconnecting earth pin (3-pin sockets) with new distribution box)	Mtrs	65
11	Earthing Cable (Green)	16 Sq. mm, EFFR copper cables. (Cable from AC Distribution box to Earth Bus bar)	Mtrs	10
12	Ceiling Rose	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	7
13	Angle Holder	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	5
14	1 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	2

15	2 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	2
16	3 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	3
17	4 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
18	Modular Box Blank plate (Dummy)	Dummy Modular	Pcs	2
19	UPVC Conduit Pipe (White)	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Pcs	45
20	UPVC - Coupler (White)	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	5
21	UPVC Conduit Tee Joint	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
22	UPVC - Short & Long Elbow (White)	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable. "	Pcs	25
23	2way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
24	3way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
25	4way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low	Pcs	6

		smoke, Smoke suppressing, Temperature stable.		
26	Square Box		Pcs	12
27	Plastic wall lug	UPVC material, Size - 35 x 8 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
28	Plastic wall lug	UPVC material, Size - 25 x 7 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
29	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 35 x 8 mm, Flat head with deep slot.	Packs	2
30	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 25 x 7 mm, Flat head with deep slot.	Packs	2
31	Electrical Insulating Tape	Size - 18 x 0.125 mm, High insulating resistance, Moisture & Corrosion resistant, Flame-retardant, Long-lasting adhesion.	Pcs	2
32	Pipe Saddle Clamps	UPVC material, Size: 20 mm diameter, Light duty pipe clamp, Single nail.	Pcs	135
33	Saddle Nail	Concrete nail Size - 1.5 inch GI/ Astel string steel	kg	0.5
34	Cable Tie	Polypropylene Material, Size – 150 mm, White Colour.	Packs	3
35	Cable Lugs - 1	2.5 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
36	Cable Lugs - 2	4 Sq.mm, Pin-type, Tin-coated copper.	Pcs	10
37	Flexible Pipe	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Mtrs	5
38	Labelling Tags (Load identification tags)	Size - 3 x 1 Inch, Synthetic paper, Self-adhesive, Fluorescent Green colour, Waterproof, Temperature resistant.	Pack	1

39	Labelling Tags (Cable identification tags)	Size - 40 x 10 mm Synthetic paper, Self-adhesive, White colour, Waterproof, Temperature resistant.	Pack	1

Note: Wiring Qty mentioned above are based on assumptions, Vendors needs to complete assessment and provide firm qty within 15 days of signing Agreement, failure to which, no qty increase can be considered.

Bill of Materials for Luminaries:

Sl.no	**Products**	**Capacity**	**Unit**	**Qty**
1	LED Tube light	20 W, 230 Vac	Nos	2 Nos.
2	LED Bulb	9 W, 230 Vac	Nos	5 Nos.
3	Outdoor Light with automatic control switch (For dusk-to-dawn operation)	20 W, 230 Vac	Nos	1 No.
3.1	Outdoor Light Arm - Rust Free (GI Material)		Nos	1 No.

Sub-Center: Option 2

Bill of Materials for Solar System:

Sl. No	**Products**	**Capacity**	**Qty**

1	Solar Module	Solar Photovoltaic modules of Minimum Capacity 2000 Wp (TOPCON) Panel Make and Model should be approved under MNRE ALMM List	1 Set
2	Solar Battery	Valve regulated lead-acid (VRLA) battery – 100 Ah @ 12 V, C – 10 (Battery terminal caps used, must be big enough to cover the entire terminal area and the nut bolt assembly. Also, spring washers to be used at each battery terminal).	4 Nos
3	Module Mounting Structure (MMS)	Solar PV Module support structure. RCC Roof: Lower elevation/Landscape Orientation (Triangular MMS with concrete block). Inclined Tin Sheet Roof: Mini rail of the following specifications are to be incorporated Anodized aluminium(70 Microns) L x H x W x T – 300mm x 100mm x 40mm x 3mm EPDM tapes with adhesion to be used for each mini rail. Self drilling screws of 2 inches to be used for metal purlins and 3 inches to be used for wooden purlins. Or Triangular MMS(Landscape mode) with EPDM tapes for south orientation. It should withstand the wind speed of 200 – 250 km/hr. It should be suitable for above mentioned solar module - As per Sl.No. 1	1 Set.
4	Solar Inverter/PCU - 230 Vac, 50 Hz	Total Minimum Capacity 3 kVA, 48 V – MPPT based Single Phase Supply, With Data Port (RS 485) Output.	1 No

5	Change over switch / Bypass Switch(PCU - Grid - Solar Loads)	16 A, 230 Vac (Single Phase)	1 No.
6	Copper Cable Red+Black (Module – Module - AJB) - PV1-F (Tin Coated Solar Cables)	6 sq.mm UV Protected Cable (Tin-coated copper lugs with insulation to be used at each termination points).	32 m
7	Copper Cable Red + Black (AJB - Inverter) - (Tin Coated DC Cables)	6 sq.mm (1 IN 1 OUT) (or) 10 Sq.mm (2 IN 1 OUT)	15 m
8	Cables (or) Strips (Battery - Battery) - (Tin Coated DC Copper Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal) (or) Lead coated heavy-duty copper strips not less than 25 micron of lead plating.	2 m
	Copper Cable (Red + Black) (Battery - Inverter) - (Tin Coated DC Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal).	10 m
9	Earthing Cable (Panels + MMS + Battery Rack + Inverter Rack)	4 Sq.mm Panel to Panel, Panel to MMS, MMS leg to Main Earthing Terminal (Copper Busbar) Grounding lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	20 m
10	Earthing Cable for COS and Switch Disconnector	1 Sq.mm Grounding Lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	10 m

11	Voltage Sensing Cable (Red) for Remote Monitoring System	1 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	3 m
12	Earthing Cable (AJB, GIPB & Inverter)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at the cable-earth electrode interface).	32 m + 3 m
13	Cable/Down conductor for Lightning Arrestor	From Lightning arrestor to ground level: Aluminium cable of 50 sq.mm should be used. (Aluminium lugs with insulation to be used at each termination points)	10 m
		From Ground to Earth pit: Insulated (Outdoor) GI Strip (120 microns) of size 25 x 3 mm should be used. GI strips are to be routed by using DMC saddle insulator. Interconnection of aluminium cable with GI strip will be done by using SS nut and bolt assembly (M6, 304 Grade)	4 m
14	Earthing Kit LA GIPB + Inverter + Load ACDB + Changeover Switch + Inverter Rack Panels + MMS + AJB + Switch Disconnector + Battery Rack	Chemical earthing powder (50 kg per pit). Solid electrode (Steel) Bonded copper – 16 mm diameter, 2000 mm long with 250 microns Bonding thickness, tin-coated copper lugs with insulation, SS clamps with SS nut-bolts assembly. protective FRP Chamber with lid should be made. Earthing pit size should be minimum of 6-inch diameter and 2.5-meters long and should be filled with back fill compound. SS flats to be used between GI strips and electrodes. Inter connection of AC and DC earthing pits are to be made using 16 Sq.mm. 2 x Copper Busbar of 6-inch long, 5-hole, 3 mm thick Typology – Equipotential (Refer Annexure 2	3 Set
15	Lightning Protection System	Lightning arrestor Solid Aluminium Alloy of 15 mm diameter and 2000 mm long with base plate should be used. Bore clamp	1 Set

		to be used to interconnect lightning arrestor and down conductor. RCC Roof: GI Elevation pole 40 mm diameter, 3000 mm height. Supporting wires of 4 Sq.mm (120 microns) to be incorporated for stability to withstand wind speed of 200 – 250 km/hr. Bull dog grip to be used to tighten the support wires. Ceramic insulation to be provided between lightning arrestor base plate and GI elevation pole. 1.75 metre distance to be maintained between panel edges and LA Baseplate of elevation pole should be provided with anchor fasteners and to be provided with civil work of size 1.25 x 1.25 x 1.25 feet by L x B x H Inclined Sheet roof: T-based clamp of following specifications to be used Structural material : GI - 120 microns. L – Angle geometry Profile L – Angle thickness – 3mm L- Angle LxB – 37x37mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Vertical pole - 750 mm Support Wire 4 Sq.mm	
16	Grid Input Protection Box with SPD and MCB	MCB Rating: 230 Vac, 16 A (Double Pole) SPD Rating: 275 Vac, Type 2, 40 kA (Double pole with indicators) Inter connection of the components inside the GIPB should be 4 Sq.mm	1 No.

		(Tin-coated copper lugs with insulation to be used at each termination points).	
17	One row Battery rack (Enclosure, door with lock and key) with the following: Electrical Insulation mat (Minimum 0.4 kV)	As per Solar Battery Sl. No. - 2 (Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Strips - 25 x 4 mm Enclosure door with Lock and key (Wood supports are not to be used) In the battery rack, each joint should be assembled with GI nut and bolt assembly.(Welding of any sort should be avoided)	1 Set.
18	Inverter rack with the following: Electrical Insulation mat (Minimum 0.4 kV)	(Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35 mm Hexagonal Nut – M8x20mm Hexagonal bolt - M8x6mm (Wood supports are not to be used)	1 Set.

		In the inverter rack, each joint should be assembled with GI nut and bolt assembly. (Welding of any sort should be avoided)	
19	Solar Array Junction Box with MCB and SPD and String Fuse.	1 IN 1 OUT MCB Rating : 500 Vdc, 25 A (Double Pole) SPD Rating: Uc - 275 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 1 No. Inter connection of the components inside the AJB should be DC cable of 6 Sq.mm (or) 2 IN 1 OUT MCB Rating : 500 Vdc, 50 A (Double Pole) SPD Rating: Uc - 125 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 2 Nos. Inter connection of the components inside the AJB should be DC cable of 10 Sq.mm	1 No.
20	Load Side MCB with Conduit box	MCB Rating: 16 A, 230 Vac (Double Pole)	1 No.
21	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads ACDB + Changeover Switch + Inverter rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
22	Marking for DC earthing with Elevated Plaques (Panels + MMS + AJB + Switch Disconnector + Battery rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.

23	Marking of Lightning Arrester Earthing with Elevated Plaques	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
24	Single Line Diagram (SLD) for the system	Sun board with 3 mm Thickness - 4 ft x 2 ft	1 No.
25	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)	Foam Plaque - A4 Size for each	1 No.
26	Signboard for Danger, No Fire and PASS	Danger - Electric shock –A4 Danger - High Voltage – A4 No Fire – A5 PASS - A4	1 No each
27	I/P and O/P wiring of Grid Connection (Red + Black) - AC cable	4 Sq. mm. (Tin-coated copper lugs with insulation to be used at each termination points).	30 m
28	Fire Extinguisher	Multi-Purpose - ABC Dry powder extinguishing agents (or) CO2 type with 3 kg net weight of the charge inside the cylinder.	1 No
29	Metallic Enclosure with Isolator's having minimum gap of 1 inch. (PV, Battery & Grid Input to Inverter)	1st Switch for Battery Input - 63 A, 500 Vdc, Double Pole 2nd Switch for PV Input – 32 A, 500 Vdc, Double Pole (1 IN 1 OUT) (or) 63 A, 500 Vdc Double Pole (2 IN 1 OUT) 3rd Switch for Grid Input – 20 A, 230 Vac, Double Pole	1 Set
30	Consumables	Includes: UPVC pipes and fittings, Flexible pipes, Screws, Nuts and Bolts, Cable lugs etc…	1 Set

Bill of Materials for Load Wiring:

Total Load Points - 22

Sl.no	Item	Description	UoM	Qty
1	AC Distribution Box	8 - Way, Single phase, Double door, Wall mounting type, DIN rail, Neutral busbar, Earth busbar.	Pcs	1
2	Main MCB	16 A, AC, Double pole, B-curve, 10 kA, 230 Vac	Pcs	1
3	RCCB	30mA, 20 A, AC, Double Pole, 10 kA, 230 Vac	Pcs	1
4	MCB Circuit 1	6 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
5	MCB Circuit 2	10 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
6	Fan Regulator	Electronic, 2-Modular, 5-Level speed control, 80 - 100 W.	Pcs	5
7	Socket (Modular)	3 pin, 6 A, 230 V, (White colour).	Pcs	4
8	Switch (Modular)	6 A, 1-Way, 230 V, (White colour).	Pcs	19
9	16 A Combo Socket with indicators	16 A, 230 V, Socket, FR polycarbonate material (White Colour)	Pcs	3
10	Power Cable - 1 (Red)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	75
	Power Cable - 1 (Black)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	75
11	Power Cable – 2 (Red)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	90
	Power Cable - 2 (Black)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	90
12	Earthing Cable (Green)	1 Sq. mm, EFFR copper cables. (Interconnecting earth pin (3-pin sockets) with new distribution box)	Mtrs	55

13	Earthing Cable (Green)	16 Sq. mm, EFFR copper cables. (Cable from AC Distribution box to Earth Bus bar)	Mtrs	15
14	Ceiling Rose	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	9
15	Angle Holder	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	6
16	1 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	3
17	2 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	2
18	3 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
19	4 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	5
20	Modular Box Blank plate (Dummy)	Dummy Modular	Pcs	2
21	UPVC Conduit Pipe (White)	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Pcs	55
22	UPVC - Coupler (White)	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
23	UPVC Conduit Tee Joint	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	20
24	UPVC - Short & Long Elbow (White)	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low	Pcs	20

		smoke, Smoke suppressing, Temperature stable. "		
25	2way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
26	3way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
27	4way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
28	Square Box		Pcs	15
29	Plastic wall lug	UPVC material, Size - 35 x 8 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
30	Plastic wall lug	UPVC material, Size - 25 x 7 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
31	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 35 x 8 mm, Flat head with deep slot.	Packs	2
32	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 25 x 7 mm, Flat head with deep slot.	Packs	2
33	Electrical Insulating Tape	Size - 18 x 0.125 mm, High insulating resistance, Moisture & Corrosion resistant, Flame-retardant, Long-lasting adhesion.	Pcs	2
34	Pipe Saddle Clamps	UPVC material, Size: 20 mm diameter, Light duty pipe clamp, Single nail.	Pcs	165
35	Saddle Nail	Concrete nail Size - 1.5 inch GI/ Astel string steel	kg	0.5

36	Cable Tie	Polypropylene Material, Size – 150 mm, White Colour.	Packs	3
37	Cable Lugs - 1	2.5 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
38	Cable Lugs - 2	4 Sq.mm, Pin-type, Tin-coated copper.	Pcs	10
39	Flexible Pipe	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Mtrs	5
40	Labelling Tags (Load identification tags)	Size - 3 x 1 Inch, Synthetic paper, Self-adhesive, Fluorescent Green colour, Waterproof, Temperature resistant.	Pack	1
41	Labelling Tags (Cable identification tags)	Size - 40 x 10 mm Synthetic paper, Self-adhesive, White colour, Waterproof, Temperature resistant.	Pack	1

Bill of Materials for Luminaries:

Sl.no	Products	Capacity	Unit	Qty
1	LED Tube light	20 W, 230 Vac	Nos	3 Nos.
2	LED Bulb	9 W, 230 Vac	Nos	6 Nos
3	Outdoor Light with automatic control switch (For dusk-to-dawn operation)	20 W, 230 Vac	Nos	1 No.
3.1	Outdoor Light Arm - Rust Free (GI Material)		Nos	1 No.

Sub Center: Option 3

Bill of Materials for Solar System:

Sl. No	Products	Capacity	Qty
1	Solar Module	Solar Photovoltaic modules of Minimum Capacity 3000 Wp (TOPCON) Panel Make and Model should be approved under MNRE ALMM List	1 Set
2	Solar Battery	Valve regulated lead-acid (VRLA) battery – 200 Ah @ 12 V, C – 10 (Battery terminal caps used, must be big enough to cover the entire terminal area and the nut bolt assembly. Also, spring washers to be used at each battery terminal).	4 Nos
3	Module Mounting Structure (MMS)	Solar PV Module support structure. RCC Roof: Lower elevation/Landscape Orientation (Triangular MMS with concrete block). Inclined Tin Sheet Roof: Mini rail of the following specifications are to be incorporated Anodized aluminium(70 Microns) L x H x W x T – 300mm x 100mm x 40mm x 3mm EPDM tapes with adhesion to be used for each mini rail. Self drilling screws of 2 inches to be used for metal purlins and 3 inches to be used for wooden purlins. Or Triangular MMS(Landscape mode) with EPDM tapes for south orientation. It should withstand the wind speed of 200 – 250 km/hr. It should be suitable for above mentioned solar module -	1 Set.

		As per Sl.No. 1	
4	Solar Inverter/PCU - 230 Vac, 50 Hz	Total Minimum Capacity 5 kVA, 48 V – MPPT based Single Phase Supply, With Data Port (RS 485) Output.	1 No
5	Change over switch / Bypass Switch (PCU -Grid - Solar Loads)	32 A, 230 Vac (Single Phase)	1 No.
6	Copper Cable Red + Black (Module – Module - AJB) - PV1-F (Tin Coated Solar Cables)	6 sq.mm UV Protected Cable (Tin-coated copper lugs with insulation to be used at each termination points).	48 m
7	Copper Cable Red + Black (AJB - Inverter) - (Tin Coated DC Cables)	6 sq.mm (1 IN 1 OUT) (or) 10 Sq.mm (2 IN 1 OUT)	15 m
8	Cables (or) Strips (Battery - Battery) - (Tin Coated DC Copper Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal) (or) Lead coated heavy-duty copper strips not less than 25 micron of lead plating.	2 m
	Copper Cable (Red + Black) (Battery - Inverter) - (Tin Coated DC Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal).	10 m
9	Earthing Cable (Panels + MMS + Battery Rack + Inverter Rack)	4 Sq.mm Panel to Panel, Panel to MMS, MMS leg to Main Earthing Terminal (Copper Busbar) Grounding lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	20 m

10	Earthing Cable for COS and Switch Disconnector	1 Sq.mm Grounding Lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	10 m
11	Voltage Sensing Cable (Red) for Remote Monitoring System	1 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	3 m
12	Earthing Cable (AJB, GIPB & Inverter)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at the cable-earth electrode interface).	32 m + 3 m
13	Cable/Down conductor for Lightning Arrestor	From Lightning arrestor to ground level: Aluminium cable of 50 sq.mm should be used. (Aluminium lugs with insulation to be used at each termination points)	10 m
		From Ground to Earth pit: Insulated (Outdoor) GI Strip (120 microns) of size 25 x 3 mm should be used. GI strips are to be routed by using DMC saddle insulator. Interconnection of aluminium cable with GI strip will be done by using SS nut and bolt assembly (M6, 304 Grade)	4 m
14	Earthing Kit LA GIPB + Inverter + Load ACDB + Changeover Switch + Inverter Rack Panels + MMS + AJB + Switch Disconnector + Battery Rack	Chemical earthing powder (50 kg per pit). Solid electrode (Steel) Bonded copper – 16 mm diameter, 2000 mm long with 250 microns Bonding thickness, tin-coated copper lugs with insulation, SS clamps with SS nut-bolts assembly. protective FRP Chamber with lid should be made. Earthing pit size should be minimum of 6-inch diameter and 2.5-meters long and should be filled with back fill compound. SS flats to be used between GI strips and electrodes.	3 Set

		Inter connection of AC and DC earthing pits are to be made using 16 Sq.mm. 2 x Copper Busbar of 6-inch long, 5-hole, 3 mm thick Typology – Equipotential (Refer Annexure 2)	
15	Lightning Protection System	Lightning arrestor Solid Aluminium Alloy of 15 mm diameter and 2000 mm long with base plate should be used. Bore clamp to be used to interconnect lightning arrestor and down conductor. RCC Roof: GI Elevation pole 40 mm diameter, 3000 mm height. Supporting wires of 4 Sq.mm (120 microns) to be incorporated for stability to withstand wind speed of 200 – 250 km/hr. Bull dog grip to be used to tighten the support wires. Ceramic insulation to be provided between lightning arrestor base plate and GI elevation pole. 1.75 metre distance to be maintained between panel edges and LA Baseplate of elevation pole should be provided with anchor fasteners and to be provided with civil work of size 1.25 x 1.25 x 1.25 feet by L x B x H Inclined Sheet roof: T-based clamp of following specifications to be used Structural material : GI - 120 microns. L – Angle geometry Profile L – Angle thickness – 3mm L- Angle LxB – 37x37mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Vertical pole - 750 mm	1 Set

		Support Wire 4 Sq.mm	
16	Grid Input Protection Box with SPD and MCB	MCB Rating: 230 Vac, 32 A (Double Pole) SPD Rating: 275 Vac, Type 2, 40 kA (Double pole with indicators) Inter connection of the components inside the GIPB should be 6 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	1 No.
17	One row Battery rack (Enclosure, door with lock and key) with the following: Electrical Insulation mat (Minimum 0.4 kV)	As per Solar Battery Sl. No. - 2 (Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Strips - 25 x 4 mm Enclosure door with Lock and key (Wood supports are not to be used) In the battery rack, each joint should be assembled with GI nut and bolt assembly .(Welding of any sort should be avoided)	1 Set.
18	Inverter rack with the following:	(Each leg should be given a base flat plate)	1 Set.

	Electrical Insulation mat (Minimum 0.4 kV)	The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35 mm Hexagonal Nut – M8x20mm Hexagonal bolt - M8x6mm (Wood supports are not to be used) In the inverter rack, each joint should be assembled with GI nut and bolt assembly. (Welding of any sort should be avoided)	
19	Solar Array Junction Box with MCB and SPD and String Fuse.	1 IN 1 OUT MCB Rating: 500 Vdc, 25 A (Double Pole) SPD Rating: Uc - 350 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 1 No. Inter connection of the components inside the AJB should be DC cable of 6 Sq.mm (or) 2 IN 1 OUT MCB Rating: 500 Vdc, 50 A (Double Pole) SPD Rating: Uc - 180 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 2 Nos. Inter connection of the components inside the AJB should be DC cable of 10 Sq.mm	1 No.

20	Load Side MCB with Conduit box	MCB Rating: 16 A, 230 Vac (Double Pole)	1 No.
21	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads ACDB + Changeover Switch + Inverter rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
22	Marking for DC earthing with Elevated Plaques (Panels + MMS + AJB + Switch Disconnector + Battery rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
23	Marking of Lightning Arrester Earthing with Elevated Plaques	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
24	Single Line Diagram (SLD) for the system	Sun board with 3 mm Thickness - 4 ft x 2 ft	1 No.
25	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)	Foam Plaque - A4 Size for each	1 No.
26	Signboard for Danger, No Fire and PASS	Danger - Electric shock – A4 Danger - High Voltage – A4 No Fire – A5 PASS - A4	1 No each
27	I/P and O/P wiring of Grid Connection (Red + Black) - AC cable	6 Sq. mm. (Tin-coated copper lugs with insulation to be used at each termination points).	30 m
28	Fire Extinguisher	Multi-Purpose - ABC Dry powder extinguishing agents (or) CO2 type with 3 kg net weight of the charge inside the cylinder.	1 No
29	Metallic Enclosure with Isolator's having minimum gap of 1 inch. (PV, Battery & Grid Input to Inverter)	1st Switch for Battery Input - 63 A, 500 Vdc, Double Pole 2nd Switch for PV Input – 32 A, 500 Vdc, Double Pole (1 IN 1 OUT)	1 Set

		(or) 63 A, 500 Vdc Double Pole (2 IN 1 OUT) 3rd Switch for Grid Input – 40 A, 230 Vac, Double Pole	
30	Consumables	Includes: UPVC pipes and fittings, Flexible pipes, Screws, Nuts and Bolts, Cable lugs etc…	1 Set

Bill of Materials for Load Wiring:

Total Load Points - 25

Sl.no	Item	Description	UoM	Qty
1	AC Distribution Box	8 - Way, Single phase, Double door, Wall mounting type, DIN rail, Neutral busbar, Earth busbar.	Pcs	1
2	Main MCB	16 A, AC, Double pole, B-curve, 10 kA, 230 Vac	Pcs	1
3	RCCB	30mA, 20 A, AC, Double Pole, 10 kA, 230 Vac	Pcs	1
4	MCB Circuit 1	6 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
5	MCB Circuit 2	16 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
6	Fan Regulator	Electronic, 2-Modular, 5-Level speed control, 80 - 100 W.	Pcs	6
7	Socket (Modular)	3 pin, 6 A, 230 V, (White colour).	Pcs	4
8	Switch (Modular)	6 A, 1-Way, 230 V, (White colour).	Pcs	20
9	16 A Combo Socket with indicators	16 A, 230 V, Socket, FR polycarbonate material (White Colour)	Pcs	5
10	Power Cable - 1 (Red)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	80
	Power Cable - 1 (Black)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	80

11	Power Cable – 2 (Red)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	65
	Power Cable - 2 (Black)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	65
12	Power Cable – 2 (Red)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	40
	Power Cable - 2 (Black)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	40
13	Earthing Cable (Green)	1 Sq. mm, EFFR copper cables. (Interconnecting earth pin (3-pin sockets) with new distribution box)	Mtrs	70
14	Earthing Cable (Green)	16 Sq. mm, EFFR copper cables. (Cable from AC Distribution box to Earth Bus bar)	Mtrs	15
15	Ceiling Rose	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	10
16	Angle Holder	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	6
17	1 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	3
18	2 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	1
19	3 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4

20	4 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	6
21	Modular Box Blank plate (Dummy)	Dummy Modular	Pcs	1
22	UPVC Conduit Pipe (White)	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Pcs	65
23	UPVC - Coupler (White)	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
24	UPVC Conduit Tee Joint	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	25
25	UPVC - Short & Long Elbow (White)	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable. "	Pcs	25
26	2way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
27	3way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
28	4way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	6
29	Square Box		Pcs	16
30	Plastic wall lug	UPVC material, Size - 35 x 8 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
31	Plastic wall lug	UPVC material, Size - 25 x 7 mm, Crack-proof, White colour, Eco-friendly.	Packs	1
32	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 35 x 8 mm, Flat head with deep slot.	Packs	2

33	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 25 x 7 mm, Flat head with deep slot.	Packs	2
34	Electrical Insulating Tape	Size - 18 x 0.125 mm, High insulating resistance, Moisture & Corrosion resistant, Flame-retardant, Long-lasting adhesion.	Pcs	2
35	Pipe Saddle Clamps	UPVC material, Size: 20 mm diameter, Light duty pipe clamp, Single nail.	Pcs	185
36	Saddle Nail	Concrete nail Size - 1.5 inch GI/ Astel string steel	kg	0.5
37	Cable Tie	Polypropylene Material, Size – 150 mm, White Colour.	Packs	3
38	Cable Lugs - 1	2.5 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
39	Cable Lugs - 2	4 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
40	Cable Lugs - 3	6 Sq.mm, Pin-type, Tin-coated copper.	Pcs	10
41	Flexible Pipe	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Mtrs	5
42	Labelling Tags (Load identification tags)	Size - 3 x 1 Inch, Synthetic paper, Self-adhesive, Fluorescent Green colour, Waterproof, Temperature resistant.	Pack	1
43	Labelling Tags (Cable identification tags)	Size - 40 x 10 mm Synthetic paper, Self-adhesive, White colour, Waterproof, Temperature resistant.	Pack	1

Bill of Materials for Luminaries:

Sl.no	Products	Capacity	Unit	Qty
1	LED Tube light	20 W, 230 Vac	Nos	3 Nos.
2	LED Bulb	9 W, 230 Vac	Nos	6 Nos
3	Outdoor Light with automatic control switch (For dusk-to-dawn operation)	20 W, 230 Vac	Nos	1 No.

3.1	Outdoor Light Arm - Rust Free (GI Material)		Nos	1 No.

Primary Health Centre: Option 1

Bill of Materials for Solar System:

Sl. No	Products	Capacity	Qty
1	Solar Module	Solar Photovoltaic modules of Minimum Capacity 5000 Wp (TOPCON) Panel Make and Model should be approved under MNRE ALMM List	1 Set
2	Solar Battery	Valve regulated lead-acid (VRLA) battery – 150 Ah @ 12 V, C – 10 (Battery terminal caps used, must be big enough to cover the entire terminal area and the nut bolt assembly. Also, spring washers to be used at each battery terminal).	8 Nos
3	Module Mounting Structure (MMS)	Solar PV Module support structure. RCC Roof: Lower elevation/Landscape Orientation (Triangular MMS with concrete block). Inclined Tin Sheet Roof: Mini rail of the following specifications are to be incorporated Anodized aluminium(70 Microns) L x H x W x T – 300mm x 100mm x 40mm x 3mm EPDM tapes with adhesion to be used for each mini rail. Self drilling screws of 2 inches to be used for metal purlins and 3 inches to be used for wooden purlins. Or Triangular MMS(Landscape mode) with EPDM tapes for south orientation. It should withstand the wind speed of 200 – 250 km/hr. It should be suitable for above mentioned solar module -	1 Set.

		As per Sl.No. 1	
4	Solar Inverter/PCU - 230 Vac, 50 Hz	Total Minimum Capacity 7.5 kVA, 96 V – MPPT based Single Phase Supply, With Data Port (RS 485) Output	1 No.
5	Changeover / Bypass Switch - 1 (For DG & Grid Input)	63 A, 230 Vac (Single Phase)	1 No.
6	Changeover / Bypass Switch - 2 (PCU –Grid/DG Input – Solar Loads)	32 A, 230 Vac (Single Phase)	1 No.
7	Copper Cable Red+Black (Module – Module - AJB) - PV1-F (Tin Coated Solar Cables)	6 sq.mm UV Protected Cable (Tin-coated copper lugs with insulation to be used at each termination points).	80 m
8	Copper Cable Red + Black (AJB - Inverter) - (Tin Coated DC Cables)	6 sq.mm (1 IN 1 OUT) (or) 10 Sq.mm (2 IN 1 OUT)	20 m
9	Cables (or) Strips (Battery - Battery) - (Tin Coated DC Copper Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal) (or) Lead coated heavy-duty copper strips not less than 25 micron of lead plating.	5 m
	Copper Cable (Red + Black) (Battery - Inverter) - (Tin Coated DC Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal).	15 m
10	Earthing Cable (Panels + MMS + Battery Rack + Inverter Rack)	4 Sq.mm Panel to Panel, Panel to MMS, MMS leg to Main Earthing Terminal (Copper Busbar) Grounding lugs should be used.	25 m

		(Tin-coated copper lugs with insulation to be used at each termination points).	
11	Earthing Cable for COS 1, COS 2 and Switch Disconnector	1 Sq.mm Grounding Lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	15 m
12	Voltage Sensing Cable (Red) for Remote Monitoring System	1 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	3 m
13	Earthing Cable (AJB, GIPB & Inverter)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at the cable-earth electrode interface).	62 m + 3 m
14	Cable/Down conductor for Lightning Arrestor	From Lightning arrestor to ground level: Aluminium cable of 50 sq.mm should be used. (Aluminium lugs with insulation to be used at each termination points)	20 m + 20 m + 10 m
		From Ground to Earth pit: Insulated (Outdoor) GI Strip (120 microns) of size 25 x 3 mm should be used. GI strips are to be routed by using DMC saddle insulator. Interconnection of aluminium cable with GI strip will be done by using SS nut and bolt assembly (M6, 304 Grade)	4 m + 4 m + 3 m
15	Earthing Kit LA - 1 LA - 2 GIPB + Inverter + Load ACDB + Changeover Switch 1 & 2 + Inverter Rack Panels + MMS + AJB + Switch Disconnector + Battery Rack	Chemical earthing powder (50 kg per pit). Solid electrode (Steel) Bonded copper – 16 mm diameter, 2000 mm long with 250 microns Bonding thickness, tin-coated copper lugs with insulation, SS clamps with SS nut-bolts assembly. protective FRP Chamber with lid should be made. Earthing pit size should be minimum of 6-inch diameter and 2.5-meters long and should be filled with back fill compound.	4 Set

		SS flats to be used between GI strips and electrodes. Inter connection of Lightning arrestor earthing pits are to be made using GI strips 120 microns, 25 x 3 mm Inter connection of AC and DC earthing pits are to be made using 16 Sq.mm. 2 x Copper Busbar of 6-inch long, 5-hole, 3 mm thick Typology – Equipotential (Refer Annexure 2)	
16	Lightning Protection System	Lightning arrestor Solid Aluminium Alloy of 15 mm diameter and 2000 mm long with base plate should be used. Bore clamp to be used to interconnect lightning arrestor and down conductor. RCC Roof: GI Elevation pole 40 mm diameter, 3000 mm height. Supporting wires of 4 Sq.mm (120 microns) to be incorporated for stability to withstand wind speed of 200 – 250 km/hr. Bull dog grip to be used to tighten the support wires. Ceramic insulation to be provided between lightning arrestor base plate and GI elevation pole. 1.75 metre distance to be maintained between panel edges and LA Baseplate of elevation pole should be provided with anchor fasteners and to be provided with civil work of size 1.25 x 1.25 x 1.25 feet by L x B x H Inclined Sheet roof: T-based clamp of following specifications to be used Structural material : GI - 120 microns. L – Angle geometry Profile L – Angle thickness – 3mm L- Angle LxB – 37x37mm	2 Set

		Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Vertical pole - 1500 mm Support Wire 4 Sq.mm	
17	Grid Input Protection Box with SPD and MCB	MCB Rating: 230 Vac, 32 A (Double Pole) SPD Rating: 275 Vac, Type 2, 40 kA (Double pole with indicators) Inter connection of the components inside the GIPB should be 10 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	1 No.
18	Double row Battery rack (Enclosure, door with lock and key) with the following: Electrical Insulation mat (Minimum 0.4 kV)	As per Solar Battery Sl. No. - 2 (Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Strips - 25 x 4 mm Enclosure door with Lock and key (Wood supports are not to be used) In the battery rack, each joint should be assembled with GI nut and bolt assembly .(Welding of any sort should be avoided)	1 Set.

19	Inverter rack with the following: Electrical Insulation mat (Minimum 0.4 kV)	(Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35 mm Hexagonal Nut – M8x20mm Hexagonal bolt - M8x6mm (Wood supports are not to be used) In the inverter rack, each joint should be assembled with GI nut and bolt assembly. (Welding of any sort should be avoided)	1 Set.
20	Solar Array Junction Box with MCB and SPD and String Fuse.	1 IN 1 OUT MCB Rating : 600 Vdc, 25 A (Double Pole) SPD Rating: Uc - 530 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 1 No. Inter connection of the components inside the AJB should be DC cable of 6 Sq.mm (or) 2 IN 1 OUT MCB Rating : 500 Vdc, 50 A (Double Pole) SPD Rating: Uc - 350 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 2 Nos. Inter connection of the components inside the AJB should be DC cable of 10 Sq.mm	1 No.

21	Load Side MCB with Conduit box	MCB Rating: 32 A, 230 Vac (Double Pole)	1 No.
22	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads ACDB + Changeover Switch 1 & 2+Inverter rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
23	Marking for DC earthing with Elevated Plaques (Panels + MMS + AJB + Switch Disconnector + Battery rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
24	Marking of Lightning Arrester Earthing with Elevated Plaques	Elevation pole length - 3 Feet. Metal plaque dimension - A5	2 Nos.
25	Single Line Diagram (SLD) for the system	Sun board with 3 mm Thickness - 4 ft x 2 ft	1 No.
26	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)	Foam Plaque - A4 Size for each	1 No.
27	Signboard for Danger, No Fire and PASS	Danger - Electric shock – A4 Danger - High Voltage – A4 No Fire – A5 PASS - A4	1 No each
28	I/P and O/P wiring of Grid Connection (Red + Black) - AC cable	10 Sq. mm. (Tin-coated copper lugs with insulation to be used at each termination points).	60 m
29	Fire Extinguisher	Multi-Purpose - ABC Dry powder extinguishing agents (or) CO2 type with 6 kg net weight of the charge inside the cylinder.	1 No
30	Metallic Enclosure with Isolator's having minimum gap of 1 inch.	1st Switch for Battery Input - 63 A, 500 Vdc, Double Pole 2nd Switch for PV Input – 32 A, 600 Vdc, Double Pole (1 IN 1 OUT)	1 Set

	(PV, Battery & Grid Input to Inverter)	(or) 63 A, 500 Vdc Double Pole (2 IN 1 OUT) 3rd Switch for Grid Input – 40 A, 230 Vac, Double Pole	
31	Consumables	Includes: UPVC pipes and fittings, Flexible pipes, Screws, Nuts and Bolts, Cable lugs etc…	1 Set

Bill of Materials for Load Wiring:

Total Load Points - 61

Sl.no	Item	Description	UoM	Qty
1	AC Distribution Box	10 - Way, Single phase, Double door, Wall mounting type, DIN rail, Neutral busbar, Earth busbar.	Pcs	1
2	Main MCB	32 A, AC, Double pole, B-curve, 10 kA, 230 Vac	Pcs	1
3	RCCB	30 mA, 40 A, AC, Double Pole, 10 kA, 230 Vac	Pcs	1
4	MCB Circuit 1	10 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
5	MCB Circuit 2	16 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
6	MCB Circuit 3	10 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
7	Fan Regulator	Electronic, 2-Modular, 5-Level speed control, 80 - 100 W.	Pcs	13
8	Socket (Modular)	3 pin, 6 A, 230 V, (White colour).	Pcs	14
9	Switch (Modular)	6 A, 1-Way, 230 V, (White colour).	Pcs	57
10	16 A Combo Socket with indicators	16 A, 230 V, Socket, FR polycarbonate material (White Colour)	Pcs	4
11	Power Cable - 1 (Red)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	215

	Power Cable - 1 (Black)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	215
12	Power Cable – 2 (Red)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	220
	Power Cable - 2 (Black)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	220
13	Power Cable – 2 (Red)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	45
	Power Cable - 2 (Black)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	45
14	Earthing Cable (Green)	1 Sq. mm, EFFR copper cables. (Interconnecting earth pin (3-pin sockets) with new distribution box)	Mtrs	105
15	Earthing Cable (Green)	16 Sq. mm, EFFR copper cables. (Cable from AC Distribution box to Earth Bus bar)	Mtrs	20
16	Ceiling Rose	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	22
17	Angle Holder	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	21
18	1 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
19	2 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	5
20	3 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	14

21	4 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	9
22	6 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
23	Modular Box Blank plate (Dummy)	Dummy Modular	Pcs	7
24	UPVC Conduit Pipe (White)	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Pcs	160
25	UPVC - Coupler (White)	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	40
26	UPVC Conduit Tee Joint	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	60
27	UPVC - Short & Long Elbow (White)	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable. "	Pcs	60
28	2way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
29	3way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	30
30	4way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
31	Square Box		Pcs	43

32	Plastic wall lug	UPVC material, Size - 35 x 8 mm, Crack-proof, White colour, Eco-friendly.	Packs	2
33	Plastic wall lug	UPVC material, Size - 25 x 7 mm, Crack-proof, White colour, Eco-friendly.	Packs	2
34	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 35 x 8 mm, Flat head with deep slot.	Packs	4
35	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 25 x 7 mm, Flat head with deep slot.	Packs	4
36	Electrical Insulating Tape	Size - 18 x 0.125 mm, High insulating resistance, Moisture & Corrosion resistant, Flame-retardant, Long-lasting adhesion.	Pcs	4
37	Pipe Saddle Clamps	UPVC material, Size: 20 mm diameter, Light duty pipe clamp, Single nail.	Pcs	480
38	Saddle Nail	Concrete nail Size - 1.5 inch GI/ Astel string steel	kg	1
39	Cable Tie	Polypropylene Material, Size – 150 mm, White Colour.	Packs	5
40	Cable Lugs - 1	2.5 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
41	Cable Lugs - 2	4 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
42	Cable Lugs - 3	10 Sq.mm, Pin-type, Tin-coated copper.	Pcs	10
43	Flexible Pipe	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Mtrs	15
44	Labelling Tags (Load identification tags)	Size - 3 x 1 Inch, Synthetic paper, Self-adhesive, Fluorescent Green colour, Waterproof, Temperature resistant.	Pack	1
45	Labelling Tags (Cable identification tags)	Size - 40 x 10 mm Synthetic paper, Self-adhesive, White colour, Waterproof, Temperature resistant.	Pack	1

Bill of Materials for Luminaries:

Sl.no	Products	Capacity	Qty
1	LED Tube light	20 W, 230 Vac	7 Nos
2	LED Bulb	9 W, 230 Vac	21 Nos
3	Outdoor Light with automatic control switch (For dusk-to-dawn operation)	20 W, 230 Vac	2 Nos.
3.1	Outdoor Light Arm - Rust Free (GI Material)		2 Nos.

Primary Health Center: Option 2

Bill of Materials for Solar System:

Sl. No	**Products**	**Capacity**	**Qty**
1	Solar Module	Solar Photovoltaic modules of Minimum Capacity 6000 Wp (TOPCON) Panel Make and Model should be approved under MNRE ALMM List	1 Set
2	Solar Battery	Valve regulated lead-acid (VRLA) battery – 180 Ah @ 12 V, C – 10 (Battery terminal caps used, must be big enough to cover the entire terminal area and the nut bolt assembly. Also, spring washers to be used at each battery terminal).	8 Nos
3	Module Mounting Structure (MMS)	Solar PV Module support structure. RCC Roof: Lower elevation/Landscape Orientation (Triangular MMS with concrete block). Inclined Tin Sheet Roof: Mini rail of the following specifications are to be incorporated	1 Set.

		Anodized aluminium(70 Microns) L x H x W x T – 300mm x 100mm x 40mm x 3mm EPDM tapes with adhesion to be used for each mini rail. Self drilling screws of 2 inches to be used for metal purlins and 3 inches to be used for wooden purlins. Or Triangular MMS(Landscape mode) with EPDM tapes for south orientation. It should withstand the wind speed of 200 – 250 km/hr. It should be suitable for above mentioned solar module - As per Sl.No. 1	
4	Solar Inverter/PCU - 230 Vac, 50 Hz	Total Minimum Capacity 7.5 kVA, 96 V – MPPT based Single Phase Supply, With Data Port (RS 485) Output.	1 No.
5	Changeover / Bypass Switch - 1 (For DG & Grid Input)	63 A, 230 Vac (Single Phase)	1 No.
6	Changeover / Bypass Switch - 2 (PCU –Grid/DG Inputs – Solar Loads)	50 A, 230 Vac (Single Phase)	1 No.
7	Copper Cable Red+Black (Module – Module - AJB) - PV1-F (Tin Coated Solar Cables)	6 sq.mm UV Protected Cable (Tin-coated copper lugs with insulation to be used at each termination points).	96 m
8	Copper Cable Red + Black (AJB - Inverter) - (Tin Coated DC Cables)	10 sq.mm (2 IN 1 OUT) (or) 16 Sq.mm (3 IN 1 OUT)	25 m

9	Cables (or) Strips (Battery - Battery) - (Tin Coated DC Copper Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal) (or) Lead coated heavy-duty copper strips not less than 25 micron of lead plating.	5 m
	Copper Cable (Red + Black) (Battery - Inverter) - (Tin Coated DC Cables)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at each battery terminal).	15 m
10	Earthing Cable (Panels + MMS + Battery Rack + Inverter Rack)	4 Sq.mm Panel to Panel, Panel to MMS, MMS leg to Main Earthing Terminal (Copper Busbar) Grounding lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	25 m
11	Earthing Cable for COS 1, COS 2 and Switch Disconnector	1 Sq.mm Grounding Lugs should be used. (Tin-coated copper lugs with insulation to be used at each termination points).	15 m
12	Voltage Sensing Cable (Red) for Remote Monitoring System	1 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	3 m
13	Earthing Cable (AJB, GIPB & Inverter)	16 Sq.mm (Tin-coated copper lugs with insulation to be used at the cable-earth electrode interface).	62 m + 3 m
14	Cable/Down conductor for Lightning Arrestor	From Lightning arrestor to ground level: Aluminium cable of 50 sq.mm should be used. (Aluminium lugs with insulation to be used at each termination points)	20 m + 20 m + 10 m

		From Ground to Earth pit: Insulated (Outdoor) GI Strip (120 microns) of size 25 x 3 mm should be used. GI strips are to be routed by using DMC saddle insulator. Interconnection of aluminium cable with GI strip will be done by using SS nut and bolt assembly (M6, 304 Grade)	4 m + 4 m + 3 m
15	Earthing Kit LA - 1 LA - 2 GIPB + Inverter + Load ACDB + Changeover Switch 1 & 2+ Inverter Rack Panels + MMS + AJB + Switch Disconnector + Battery Rack	Chemical earthing powder (50 kg per pit). Solid electrode (Steel) Bonded copper – 16 mm diameter, 2000 mm long with 250 microns Bonding thickness, tin-coated copper lugs with insulation, SS clamps with SS nut-bolts assembly. protective FRP Chamber with lid should be made. Earthing pit size should be minimum of 6-inch diameter and 2.5-meters long and should be filled with back fill compound. SS flats to be used between GI strips and electrodes. Inter connection of Lightning arrestor earthing pits are to be made using GI strips 120 microns, 25 x 3 mm Inter connection of AC and DC earthing pits are to be made using 16 Sq.mm. 2 x Copper Busbar of 6-inch long, 5-hole, 3 mm thick Typology – Equipotential (Refer Annexure 2)	4 Set
16	Lightning Protection System	Lightning arrestor Solid Aluminium Alloy of 15 mm diameter and 2000 mm long with base plate should be used. Bore clamp to be used to interconnect lightning arrestor and down conductor. RCC Roof: GI Elevation pole 40 mm diameter, 3000 mm height. Supporting wires of 4 Sq.mm (120 microns) to be incorporated for stability to withstand wind	2 Set

		speed of 200 – 250 km/hr. Bull dog grip to be used to tighten the support wires. Ceramic insulation to be provided between lightning arrestor base plate and GI elevation pole. 1.75 metre distance to be maintained between panel edges and LA Baseplate of elevation pole should be provided with anchor fasteners and to be provided with civil work of size 1.25 x 1.25 x 1.25 feet by L x B x H Inclined Sheet roof: T-based clamp of following specifications to be used Structural material : GI - 120 microns. L – Angle geometry Profile L – Angle thickness – 3mm L- Angle LxB – 37x37mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Vertical pole - 1500 mm Support Wire 4 Sq.mm	
17	Grid Input Protection Box with SPD and MCB	MCB Rating: 230 Vac, 50 A (Double Pole) SPD Rating: 275 Vac, Type 2, 40 kA (Double pole with indicators) Inter connection of the components inside the GIPB should be 10 Sq.mm (Tin-coated copper lugs with insulation to be used at each termination points).	1 No.

18	Double row Battery rack (Enclosure, door with lock and key) with the following: Electrical Insulation mat (Minimum 0.4 kV)	As per Solar Battery Sl. No. - 2 (Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35mm Hexagonal Nut – M8x20mm Hexagonal bolt – M8x6mm Strips - 25 x 4 mm Enclosure door with Lock and key (Wood supports are not to be used) In the battery rack, each joint should be assembled with GI nut and bolt assembly .(Welding of any sort should be avoided)	1 Set.
19	Inverter rack with the following: Electrical Insulation mat (Minimum 0.4 kV)	(Each leg should be given a base flat plate) The elevation height of battery rack should be 4-inches above the floor and should be made of GI structure 120 microns. L – Angle geometry Profile L – Angle thickness – 5 mm L- Angle LxB – 35 x 35 mm Hexagonal Nut – M8x20mm Hexagonal bolt - M8x6mm (Wood supports are not to be used)	1 Set.

		In the inverter rack, each joint should be assembled with GI nut and bolt assembly. (Welding of any sort should be avoided)	
20	Solar Array Junction Box with MCB and SPD and String Fuse.	2 IN 1 OUT MCB Rating : 500 Vdc, 50 A (Double Pole) SPD Rating: Uc - 350 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 2 No. Inter connection of the components inside the AJB should be DC cable of 10 Sq.mm (or) 3 IN 1 OUT MCB Rating : 500 Vdc, 80 A (Double Pole) SPD Rating: Uc - 275 Vdc, Type 2, 40 KA (Double pole with indicators) Inline DC Fuse rating*: (+ve Strings): 25 A X 3 Nos. Inter connection of the components inside the AJB should be DC cable of 16 Sq.mm	1 No.
21	Load Side MCB with Conduit box	MCB Rating: 40 A, 230 Vac (Double Pole)	1 No.
22	Marking for AC earthing with Elevated Plaques (GIPB + Inverter + Loads ACDB + Changeover Switch 1 & 2+Inverter rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.
23	Marking for DC earthing with Elevated Plaques (Panels + MMS + AJB + Switch Disconnector + Battery rack)	Elevation pole length - 3 Feet. Metal plaque dimension - A5	1 No.

24	Marking of Lightning Arrester Earthing with Elevated Plaques	Elevation pole length - 3 Feet. Metal plaque dimension - A5	2 Nos.
25	Single Line Diagram (SLD) for the system	Sun board with 3 mm Thickness - 4 ft x 2 ft	1 No.
26	Do's and Don'ts Practices Poster (Solar Panels, Battery and Inverter)	Foam Plaque - A4 Size for each	1 No.
27	Signboard for Danger, No Fire and PASS	Danger - Electric shock – A4 Danger - High Voltage – A4 No Fire – A5 PASS - A4	1 No each
28	I/P and O/P wiring of Grid Connection (Red + Black) - AC cable	10 Sq. mm. (Tin-coated copper lugs with insulation to be used at each termination points).	60 m
29	Fire Extinguisher	Multi-Purpose - ABC Dry powder extinguishing agents (or) CO2 type with 6 kg net weight of the charge inside the cylinder.	1 No
30	Metallic Enclosure with Isolator's having minimum gap of 1 inch. (PV, Battery & Grid Input to Inverter)	1st Switch for Battery Input - 63 A, 500 Vdc, Double Pole 2nd Switch for PV Input – 63 A, 500 Vdc, Double Pole (2 IN 1 OUT) (or) 100 A, 500 Vdc Double Pole (3 IN 1 OUT) 3rd Switch for Grid Input – 63 A, 230 Vac, Double Pole	1 Set
31	Consumables	Includes: UPVC pipes and fittings, Flexible pipes, Screws, Nuts and Bolts, Cable lugs etc…	1 Set

Note:

Bill of Materials for Load Wiring:

Total Load Points - 69

Sl.no	Item	Description	UoM	Qty
1	AC Distribution Box	10 - Way, Single phase, Double door, Wall mounting type, DIN rail, Neutral busbar, Earth busbar.	Pcs	1
2	Main MCB	40 A, AC, Double pole, B-curve, 10 kA, 230 Vac	Pcs	1
3	RCCB	30 mA, 50 A, AC, Double Pole, 10 kA, 230 Vac	Pcs	1
4	MCB Circuit 1	6 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
5	MCB Circuit 2	6 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
6	MCB Circuit 3	16 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
7	MCB Circuit 4	16 A, AC, Single pole, B-curve, 10 kA, 230 Vac	Pcs	1
7	Fan Regulator	Electronic, 2-Modular, 5-Level speed control, 80 - 100 W.	Pcs	16
8	Socket (Modular)	3 pin, 6 A, 230 V, (White colour).	Pcs	14
9	Switch (Modular)	6 A, 1-Way, 230 V, (White colour).	Pcs	63
10	16 A Combo Socket with indicators	16 A, 230 V, Socket, FR polycarbonate material (White Colour)	Pcs	6
11	Power Cable - 1 (Red)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	250
	Power Cable - 1 (Black)	1.5 Sq. mm, EFFR copper cables. (Interconnecting switchboards with loads)	Mtrs	250
12	Power Cable – 2 (Red)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	200
	Power Cable - 2 (Black)	2.5 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	200

13	Power Cable – 2 (Red)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	100
	Power Cable - 2 (Black)	4 Sq. mm, EFFR copper cables. (Interconnecting distribution box with switchboards)	Mtrs	100
14	Earthing Cable (Green)	1 Sq. mm, EFFR copper cables. (Interconnecting earth pin (3-pin sockets) with new distribution box)	Mtrs	105
15	Earthing Cable (Green)	16 Sq. mm, EFFR copper cables. (Cable from AC Distribution box to Earth Bus bar)	Mtrs	25
16	Ceiling Rose	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	26
17	Angle Holder	6 A, 230 V, FR polycarbonate outer housing with ducts, Inner metal ring with high conductive brass terminals (White colour).	Pcs	23
18	1 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
19	2 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	5
20	3 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	15
21	4 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	12
22	6 modular Switch Box with plate	Surface mounting type, ABS material with brass studs, Provision for conduits. (White colour)	Pcs	4
23	Modular Box Blank plate (Dummy)	Dummy Modular	Pcs	8

24	UPVC Conduit Pipe (White)	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Pcs	185
25	UPVC - Coupler (White)	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	40
26	UPVC Conduit Tee Joint	UPVC pipe (White color), 20 mm diameter, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	65
27	UPVC - Short & Long Elbow (White)	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable. "	Pcs	80
28	2way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
29	3way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	30
30	4way Junction Box	UPVC material, 20 mm diameter, White colour, Flame retardant, Low halogen, Low smoke, Smoke suppressing, Temperature stable.	Pcs	15
31	Square Box		Pcs	49
32	Plastic wall lug	UPVC material, Size - 35 x 8 mm, Crack-proof, White colour, Eco-friendly.	Packs	2
33	Plastic wall lug	UPVC material, Size - 25 x 7 mm, Crack-proof, White colour, Eco-friendly.	Packs	2
34	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 35 x 8 mm, Flat head with deep slot.	Packs	4

35	Screw	Stainless steel/Galvanized Iron - rust-free material, Size - 25 x 7 mm, Flat head with deep slot.	Packs	4
36	Electrical Insulating Tape	Size - 18 x 0.125 mm, High insulating resistance, Moisture & Corrosion resistant, Flame-retardant, Long-lasting adhesion.	Pcs	4
37	Pipe Saddle Clamps	UPVC material, Size: 20 mm diameter, Light duty pipe clamp, Single nail.	Pcs	555
38	Saddle Nail	Concrete nail Size - 1.5 inch GI/ Astel string steel	kg	1
39	Cable Tie	Polypropylene Material, Size – 150 mm, White Colour.	Packs	10
40	Cable Lugs - 1	2.5 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
41	Cable Lugs - 2	4 Sq.mm, Pin-type, Tin-coated copper.	Pcs	5
42	Cable Lugs - 3	10 Sq.mm, Pin-type, Tin-coated copper.		10
43	Flexible Pipe	Polypropylene material, 20 mm diameter, White colour, Flame retardant, Anti-distortion.	Mtrs	15
44	Labelling Tags (Load identification tags)	Size - 3 x 1 Inch, Synthetic paper, Self-adhesive, Fluorescent Green colour, Waterproof, Temperature resistant.	Pack	1
45	Labelling Tags (Cable identification tags)	Size - 40 x 10 mm Synthetic paper, Self-adhesive, White colour, Waterproof, Temperature resistant.	Pack	1

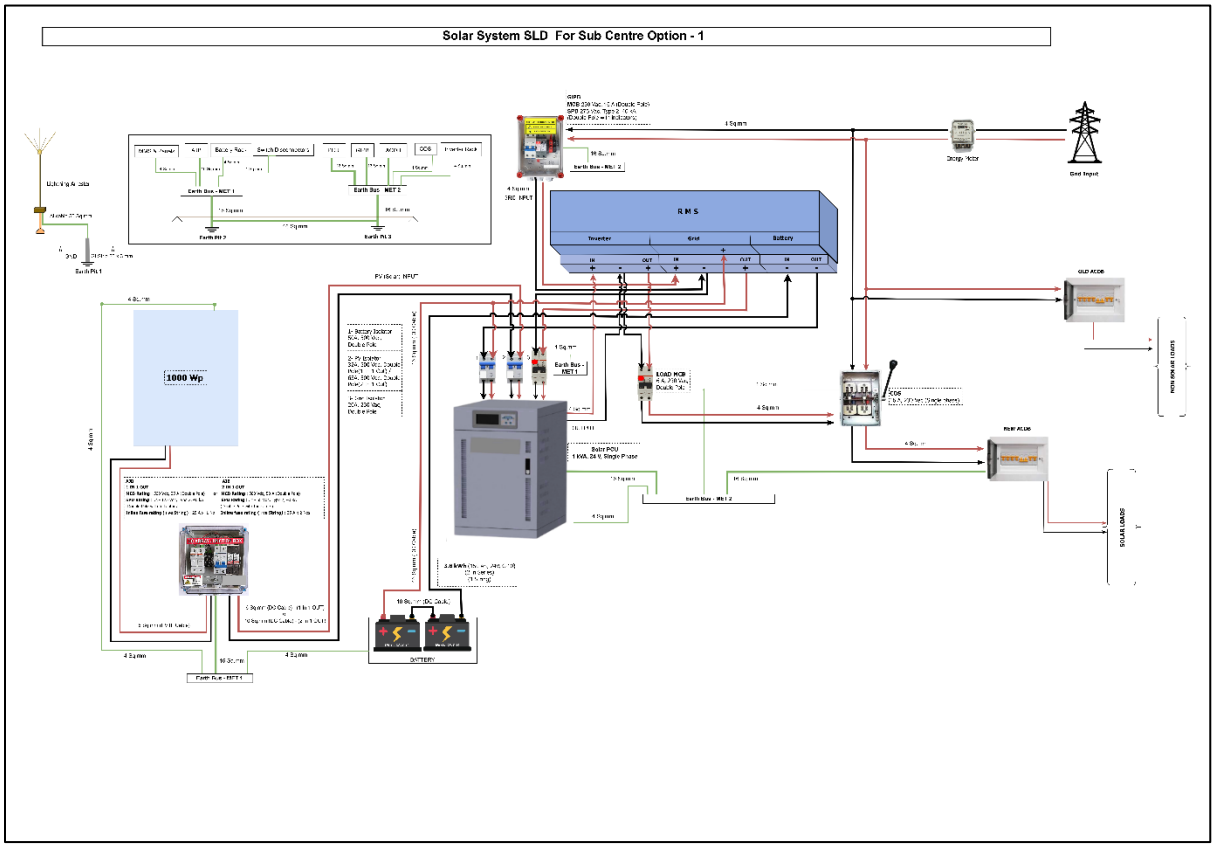
Note: Wiring Qty mentioned above are based on assumptions, Vendors needs to complete assessment and provide firm qty within 15 days of signing Agreement, failure to which, no qty increase can be considered.

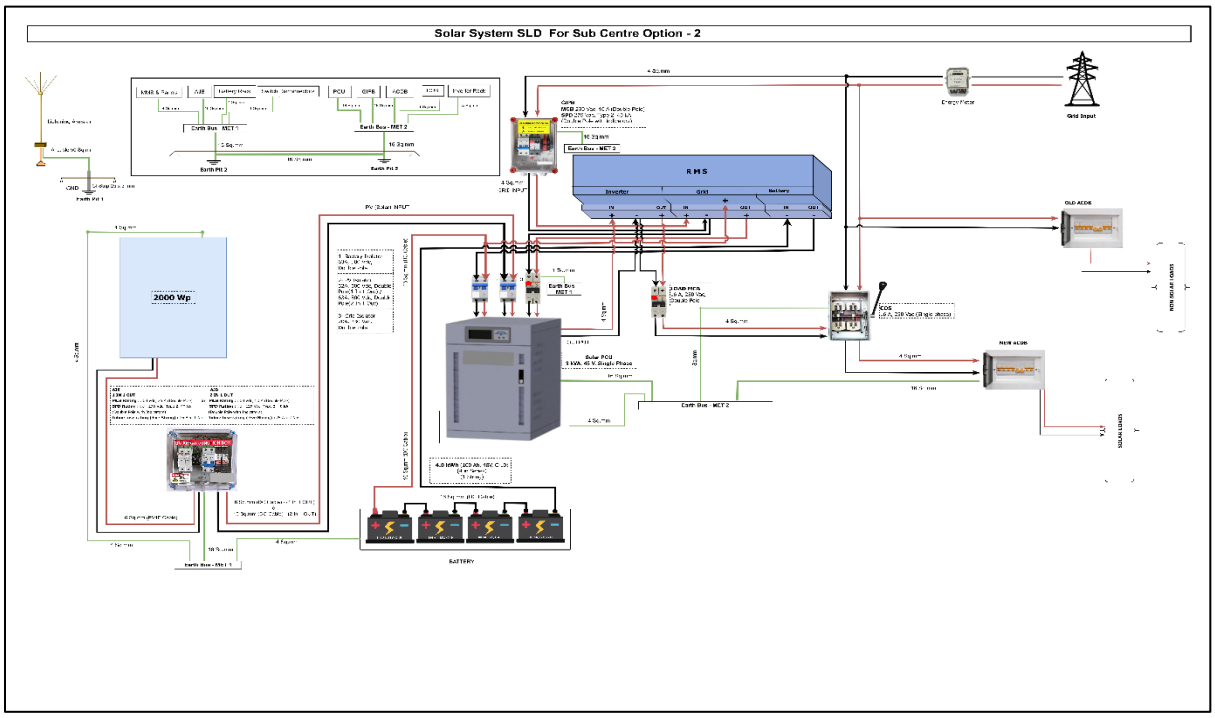
Bill of Materials for Luminaries:

Sl.no	Products	Capacity	Qty

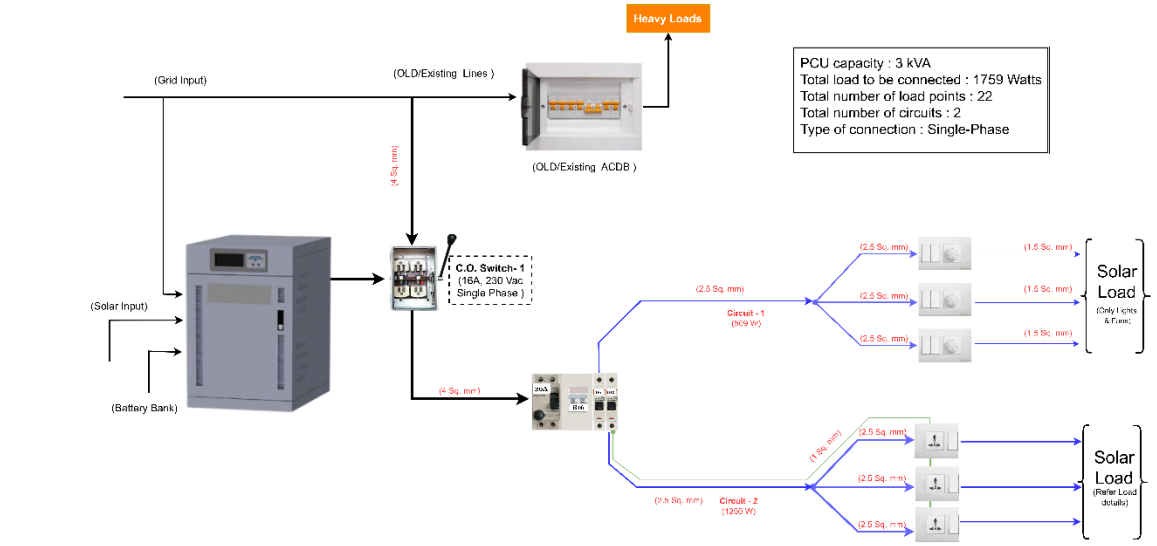
1	LED Tube light	20 W, 230 Vac	8 Nos
2	LED Bulb	9 W, 230 Vac	23 Nos
3	Outdoor Light with automatic control switch (For dusk-to-dawn operation)	20 W, 230 Vac	2 Nos.
3.1	Outdoor Light Arm - Rust Free (GI Material)		2 Nos.

Single Line Diagrams

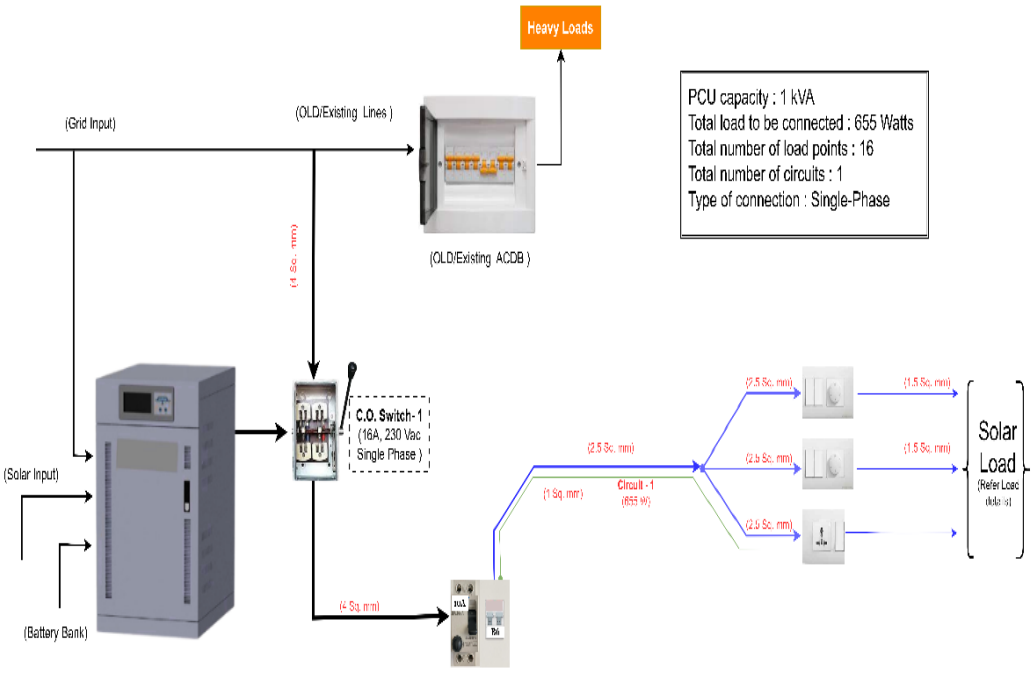



Solar System SLD For Sub Centre Option - 2
RMS
Inverter
Grid
Battery
2000 Wp
Energy Meter
Grid Input
Earth Box - MET 1
Earth Box - MET 2
BATTERY

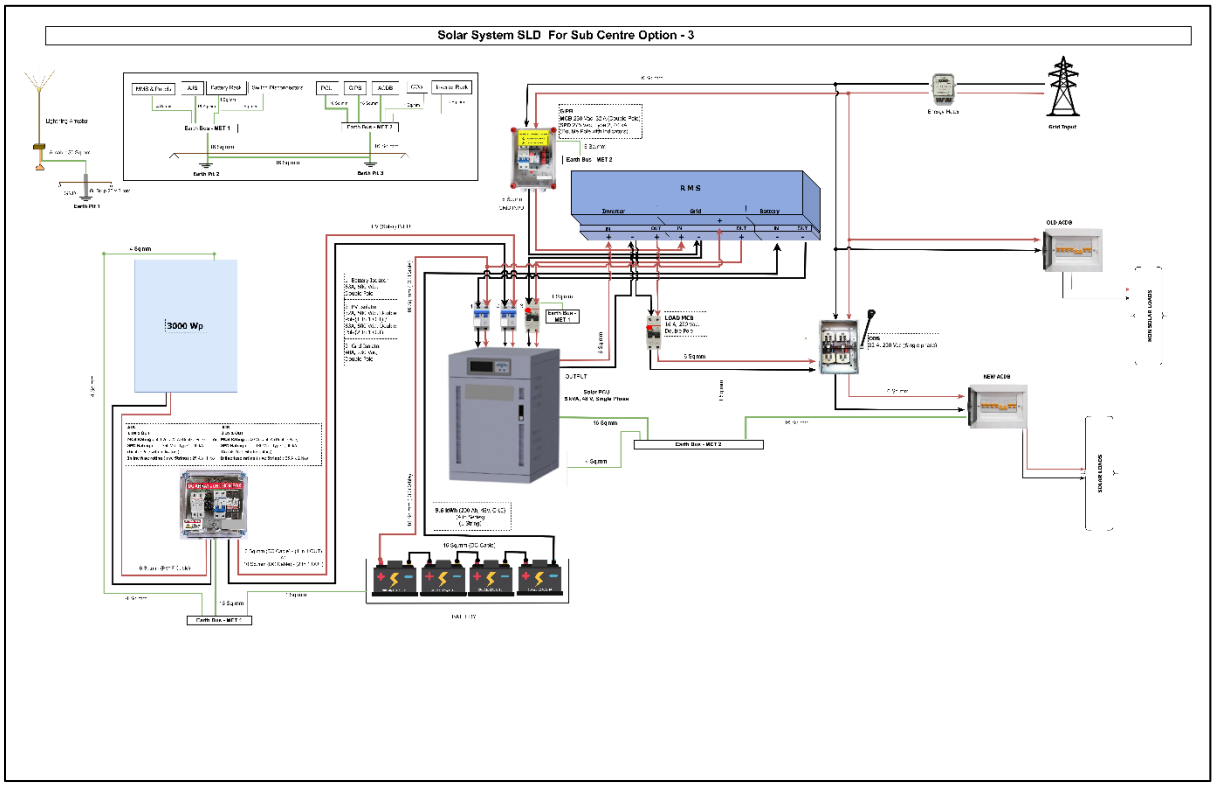
Load Wiring SLD For Sub Centre Option - 2



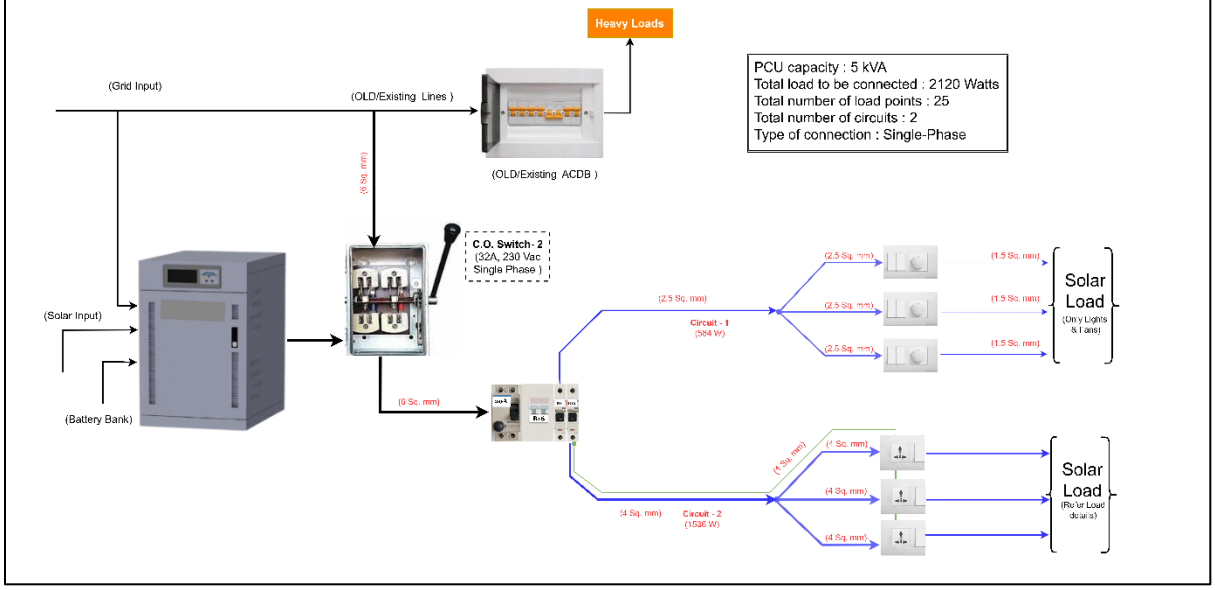
Load Wiring SLD For Sub Centre Option - 1



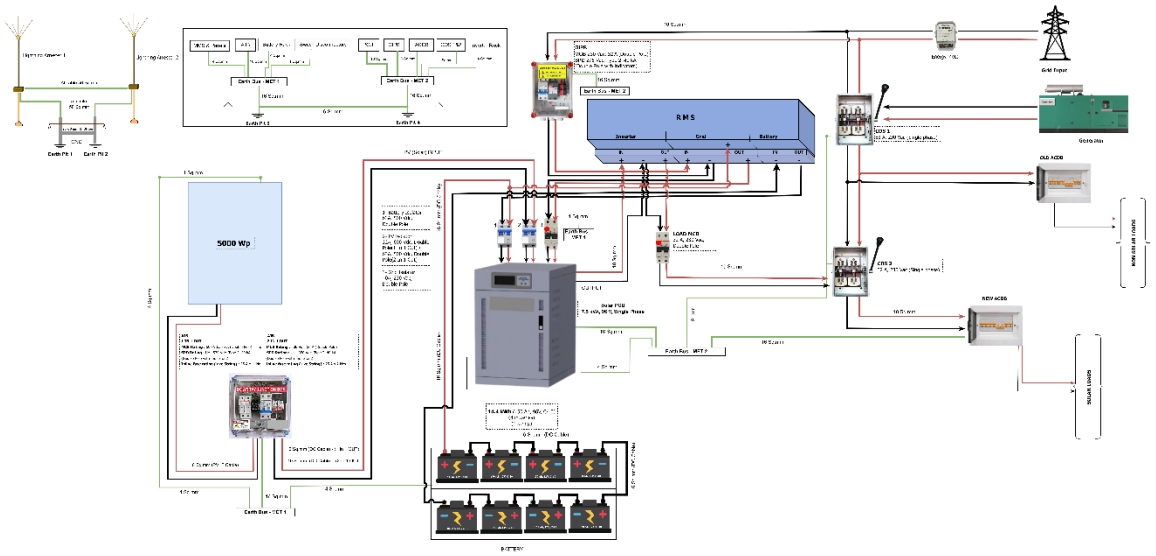
Solar System SLD For Sub Centre Option - 3



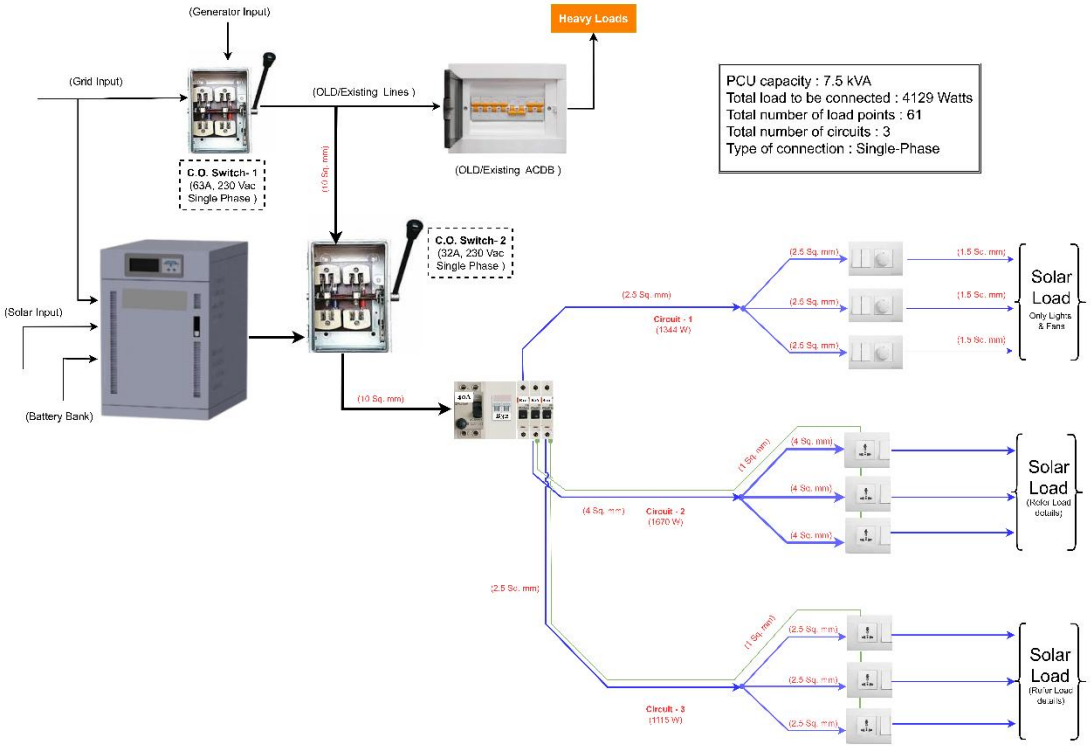
Load Wiring SLD For Sub Centre Option 3



Solar System SLD For Primary Health Centre Option - 1

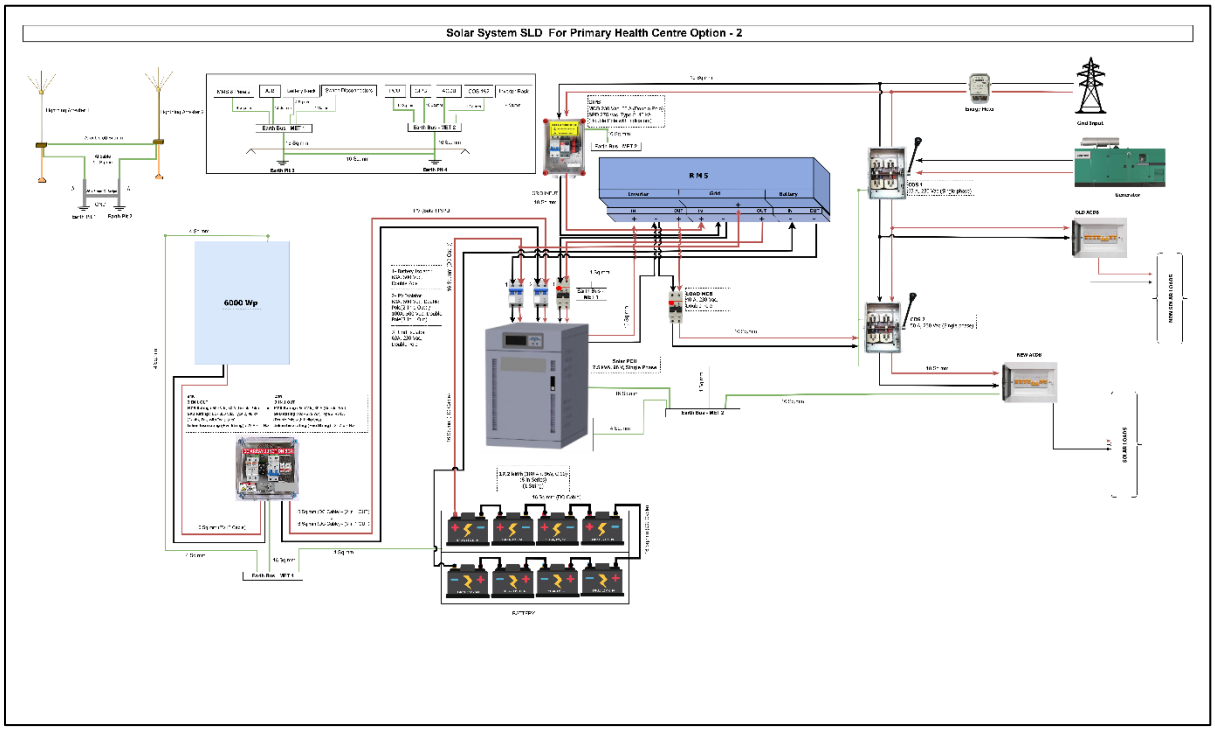


Load Wiring SLD For Primary Health Centre Option 1

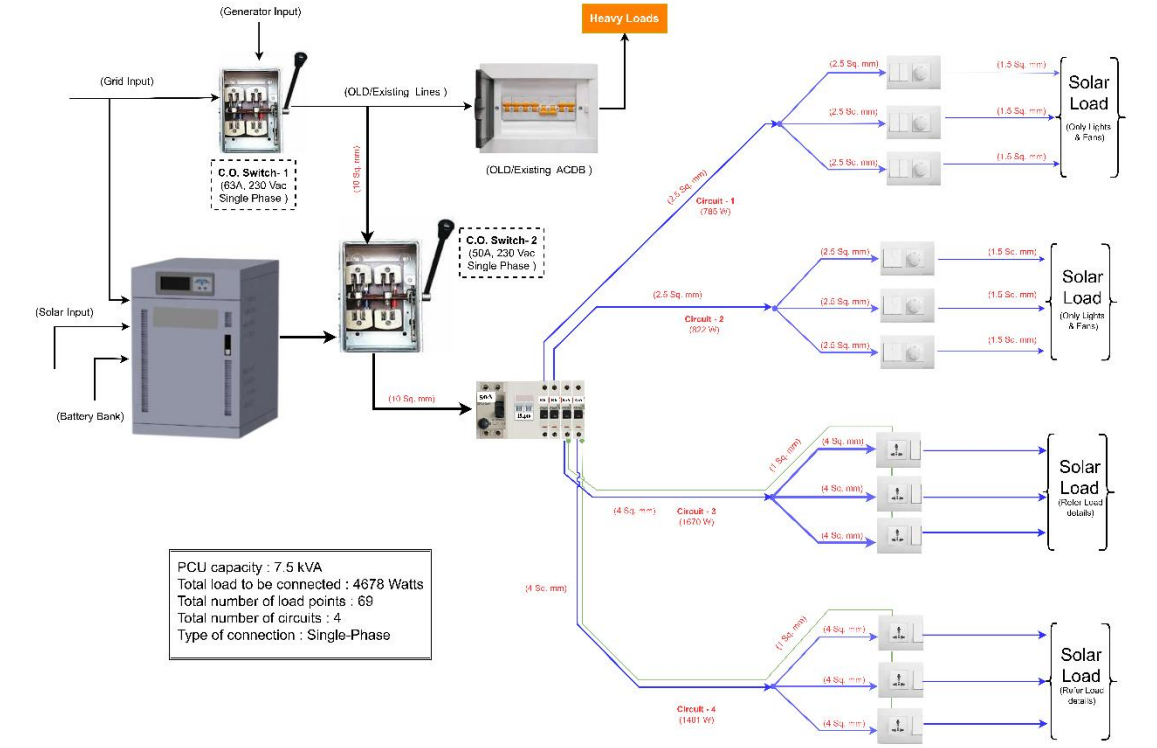


PCU capacity : 7.5 kVA
Total load to be connected : 4129 Watts
Total number of load points : 61
Total number of circuits : 3
Type of connection : Single-Phase

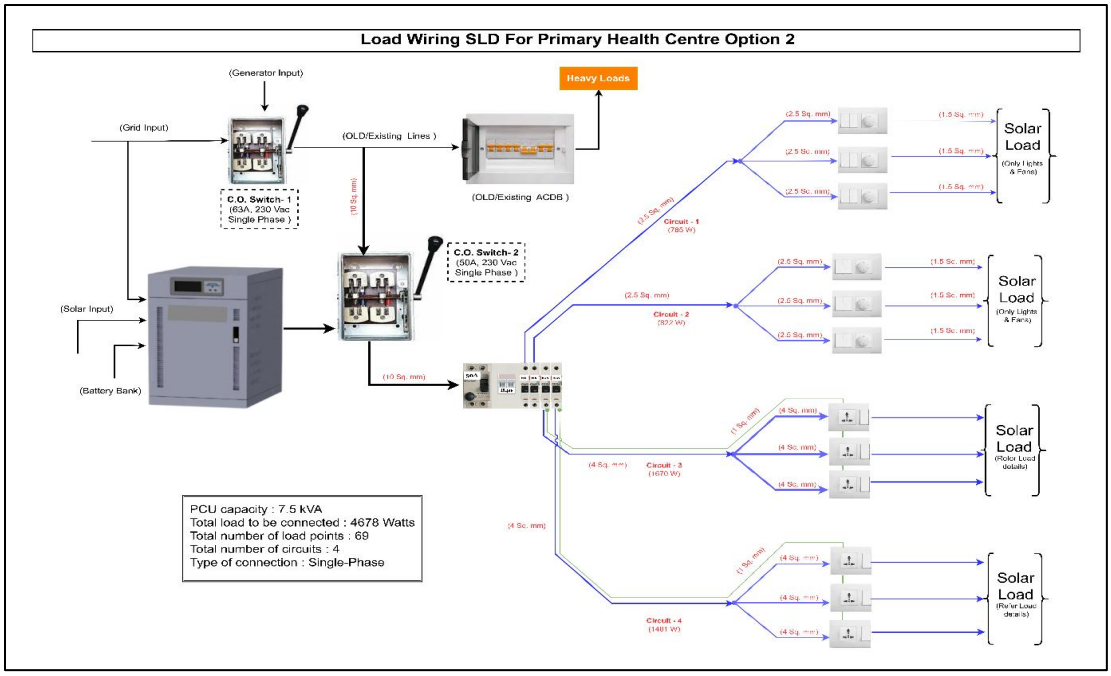
Solar System SLD For Primary Health Centre Option - 2

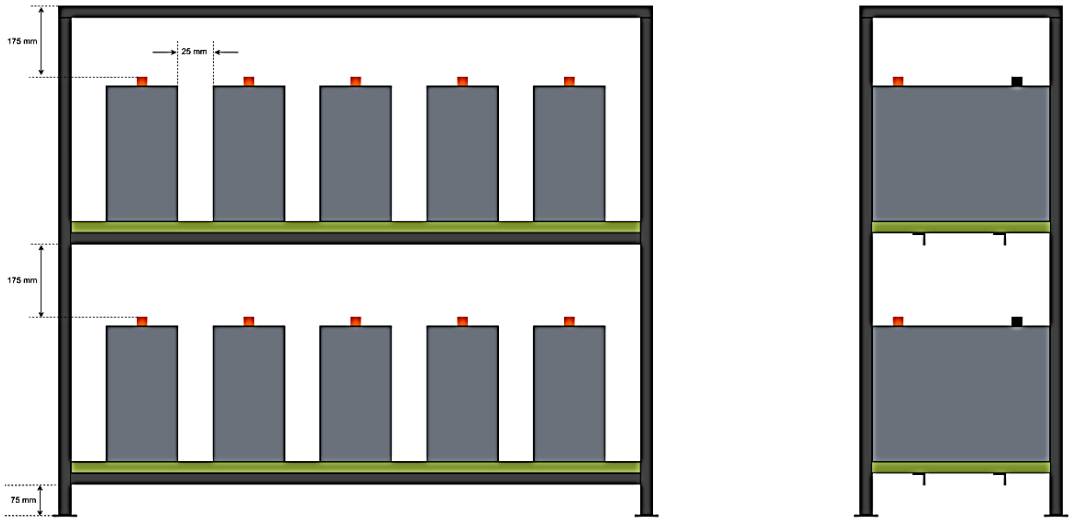


Load Wiring SLD For Primary Health Centre Option 2



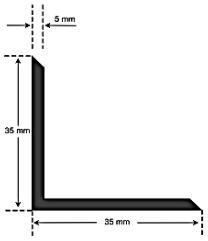
Load Wiring SLD For Primary Health Centre Option 2

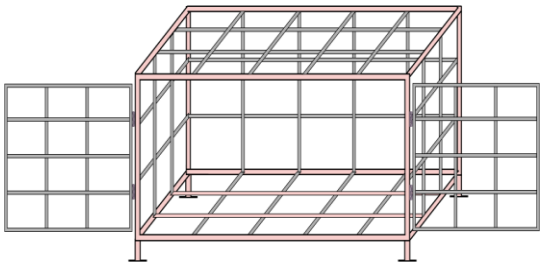


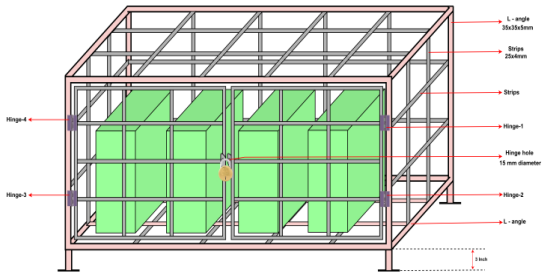


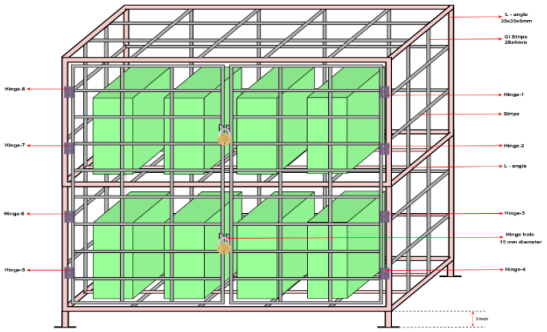
Note :

- GI (120 microns)
- L - Angle Geometry profile
- L - Angle Thickness - 5 mm
- L - Angle LxB - 35x35 mm
- GI Strips - 25x4 mm






L - angle
35x35x5mm
Strips
25x4mm
Strips
Hinge-1
Hinge hole
15 mm diameter
Hinge-2
L - angle
Hinge-4
Hinge-3
1 Inch


L - angle
35x35x5mm
GI Strips
25x4mm
Hinge-1
Strips
Hinge-2
L - angle
Hinge-3
Hinge hole
15 mm diameter
Hinge-4
Hinge-8
Hinge-7
Hinge-6
Hinge-5
3 Inch

ANNEXURE 1F: COUNT OF HEALTH CENTRES

Sl No	Name of the health facility	Health facility type	District	Block/Taluk	Village
1	PHC Toru	Primary Health Center	Papum Pare	Toru	Toru
2	AHWC Bobia	Ayush Health & Wellness Center	Papum Pare	Sagalee	Bobia
3	PHC Parang	Primary Health Center	Papum Pare	Sagalee	Parang
4	PHC Yangte	Primary Health Center	Kra Daadi	Palin	Yangte
5	PHC Tirbin	Primary Health Center	Leparada	Tirbin	Tirbin
6	HWC Dorputu	Sub Center	Leparada	Tirbin	Tirbin
7	HWC Bam	Sub Center	Leparada	Basar	Bam
8	HWC Pagi	Sub Center	Leparada	Basar	Pagi
9	HWC Disi	Sub Center	Leparada	Basar	Disi
10	PHC TATO	Primary Health Center	Shi Yomi	Tato	Tato
11	HWC YAPIK	Sub Center	Shi Yomi	Tato	Yapik
12	HWC Rapum	Sub Center	Shi Yomi	Mechukha	Rapum
13	HWC Essi-Chiku	Sub Center	Leparada	Basar	Essi-Chiku
14	Loiliang	Primary Health Center	Lohit	Tezu	Loiliang
15	Mekailiang	Sub Center	Lohit	Tezu	Mekailiang
16	Danglat	Ayush Health & Wellness Center	Lohit	Tezu	Danglat
17	PHC Kakoi	Primary Health Center	Papum Pare	Kimin	Kakoi

18	PHC Poma	Primary Health Center	Papum Pare	Balijan	Poma
19	Gohaingaon	Sub Center	Lohit	Tezu	Gohaingaon
20	PHC Hollongi	Primary Health Center	Papum Pare	Balijan	Hollongi
21	PHC Chambang	Primary Health Center	Kra Daadi	Chambang	Chambang
22	PHC CHIPUTA	Primary Health Center	Papum Pare	Doimukh	CHIPUTA
23	PHC JOTE	Primary Health Center	Papum Pare	Balijan	Jote
24	Medo	Primary Health Center	Lohit	Wakro	Medo
25	PHC BAYSERNALLO	Primary Health Center	Papum Pare	Balijan	BAYSERNALLO
26	PHC LENKA	Primary Health Center	Papum Pare	Balijan	Lenka
27	PHC Cessa	Primary Health Center	Papum Pare	Balijan	Cessa
28	AHWC LORPUTTUNG	Ayush Health & Wellness Center	Papum Pare	Balijan	LORPUTTUNG
29	Chaglagam	Ayush Health & Wellness Center	Anjaw	Chaglagam	Chaglagam
30	HWC Dalbing	Sub Center	Upper Siang	CHC Mariyang	Dalbing
31	AHWC Hostallam	Ayush Health & Wellness Center	Papum Pare	Doimukh	Hostallam
32	Walong	Primary Health Center	Anjaw	Walong	Walong
33	Tafragam	Primary Health Center	Lohit	Tezu	Tafragam

34	PHC Kherang	Primary Health Center	Anjaw	HAWAI	Kherang
35	Duraliang	Sub Center	Lohit	Tezu	Duraliang
36	HWC AMLIANG	Sub Center	Anjaw	HAYULIANG	Amliang
37	HWC NARALIANG	Ayush Health & Wellness Center	Anjaw	HAYULIANG	Naraliang
38	Telluliang	Sub Center	Lohit	Tezu	Telluliang
39	SC Paya	Sub Center	Anjaw	HAYULIANG	Paya
40	HWC SUPLIANG	Sub Center	Anjaw	HAYULIANG	Supliang
41	HWC SOPO	Sub Center	Papum Pare	Doimukh	Sopo
42	PHC QUIBANG	Primary Health Center	Anjaw	MANCHAL	Quibang
43	HWC LAUTUL	Sub Center	Anjaw	Hawai	Lautul
44	HWC Sarti	Sub Center	Anjaw	Walong	Sarti
45	HWC HALAI KRONG	Sub Center	Anjaw	MANCHAL	HALAI KRONG
46	Bekhuliang	Primary Health Center	Lohit	Tezu	Bekhuliang
47	HWC YASSONG	Sub Center	Anjaw	Walong	Yassong
48	HWC Essi-Rite	Sub Center	Leparada	Tirbin	Essi-Rite
49	HWC SIET	Sub Center	Anjaw	Manchal	Siet
50	HWC Badak	Sub Center	Leparada	Tirbin	Badak
51	SC Kibithoo (under Karuna trust NGO)	Sub Center	Anjaw	WALONG	Kibithoo
52	HWC Padi	Sub Center	Leparada	Dari	Padi
53	HWC Zirdo	Sub Center	Leparada	Dari	Zirdo
54	AHWC Sago	Ayush Health & Wellness Center	Leparada	Basar	Sago

55	AHWC Tai	Ayush Health & Wellness Center	Leparada	Tirbin	Tai
56	AHWC Rilu	Ayush Health & Wellness Center	Leparada	Dari	Rilu
57	HWC Denka	Sub Center	Papum Pare	Doimukh	Denka
58	HWC YUPIA	Sub Center	Papum Pare	Doimukh	Yupia
59	AHWC Karko	Ayush Health & Wellness Center	Upper Siang	Jengging	Karko
60	HWC Simong	Sub Center	Upper Siang	Yingkiong	Simong
61	HWC Janbo	Sub Center	Upper Siang	Jengging	Janbo
62	SC Empong	Sub Center	Namsai	Chongkham	Empong
63	HWC Reyee Peech	Sub Center	Papum Pare	Sagalee	Reyee Peech
64	HWC OMPULI	Sub Center	Papum Pare	Sagalee	Ompuli
65	HWC BALAPU	Sub Center	Papum Pare	Sagalee	BALAPU
66	HWC NIMTE	Sub Center	Papum Pare	Sagalee	NIMTE
67	HWC KAMRUNG	Sub Center	Papum Pare	Sagalee	KAMRUNG
68	HWC NYOPANG	Sub Center	Papum Pare	Sagalee	NYOPANG
69	HWC PILLA	Sub Center	Papum Pare	Sagalee	PILLA
70	HWC HAWA CAMP	Sub Center	Papum Pare	Kimin	HAWA camp
71	HWC BATH	Sub Center	Papum Pare	Balijan	Bath
72	HWC KHAMIR	Sub Center	Papum Pare	Balijan	Khamir
73	HWC Ramsing	Sub Center	Upper Siang	CHC Jengging	Ramsing
74	HWC-UPHC Karsingsa	Urban Primary Health Center	Itanagar Capital Region	Banderdewa	Karsingsa
75	HWC KHANEBUNG	Sub Center	Papum Pare	Balijan	Khanebung
76	HWC YADANG	Sub Center	Papum Pare	Balijan	Yadang
77	HWC TAPIASO	Sub Center	Papum Pare	Balijan	TAPIASO

78	AHWC Pugging	Ayush Health & Wellness Center	Upper Siang	Yingkiong	Pugging
79	HWC MEBIASO	Sub Center	Papum Pare	Balijan	MEBIASO
80	HWC BORMAI	Sub Center	Papum Pare	Balijan	BORMAI
81	HWC Komkar	Sub Center	Upper Siang	CHC Geku	Komkar
82	PHC Gangte	Primary Health Center	Kra Daadi	Chambang	Gangte
83	SC Choba	Sub Center	Kra Daadi	Palin	Choba
84	HWC Adi-Pasi (Bine)	Sub Center	Upper Siang	CHC Mariyang	Adi-Pasi
85	HWC-Durpang	Sub Center	Itanagar Capital Region	Banderdewa	Durpang
86	SC yorda	Sub Center	Kra Daadi	Tali	Yorda
87	PHC Katan	Primary Health Center	Upper Siang	CHC Geku	Katan
88	AHWC Tahu	Ayush Health & Wellness Center	Kra Daadi	Chambang	Tahu
89	HWC Migging	Sub Center	Upper Siang	CHC Tuting	Migging
90	HWC Pichola	Sub Center	Itanagar Capital Region	Banderdewa	Piçhola
91	SC Higio	Sub Center	Kra Daadi	Chambang	Higio
92	HWC Padu	Sub Center	Upper Siang	PHC Jeying	Padu
93	SC Nyomi	Sub Center	Kra Daadi	Tali	Nyomi
94	AHWC Nyobia	Ayush Health & Wellness Center	Kra Daadi	Tali	Nyobia
95	PTC Health Unit	Ayush Health & Wellness Center	Itanagar Capital Region	Banderdewa	PTC
96	PHC Dobum	Ayush Health & Wellness Center	Itanagar Capital Region	Karsingsa	Dobum
97	HWC Nirjuli	Sub Center	Itanagar Capital Region	Karsingsa	Nirjuli-1
98	HWC Khasa	Sub Center	Longding	Khakam Block	Khasa

99	Sub Centre Lekhi	Sub Center	Itanagar Capital Region	Karsingsa	Lower Lekhi
100	UPHC Rakap	Urban Primary Health Center	Itanagar Capital Region	Naharlagun	Rakap
101	PHC Pipu	Primary Health Center	East Kameng	Pipu	Pipu
102	PHC Khenewa	Primary Health Center	East Kameng	Khenewa	Khenewa
103	PHC Bameng	Primary Health Center	East Kameng	Bameng	Bameng
104	PHC Bulla Camp	Primary Health Center	East Kameng	Bana	Watte
105	PHC Bana	Primary Health Center	East Kameng	Bana	Bana
106	PHC Richukrong	Primary Health Center	East Kameng	Bana	Richukrong
107	HWC Tissa	Sub Center	Longding	Longding Block	Tissa
108	SC Nari Camp	Sub Center	East Kameng	Chayangtajo	Nari Camp
109	HWC Niausa	Sub Center	Longding	Longding Block	Niausa
110	HWC Borum	Sub Center	Itanagar Capital Region	Naharlagun	Borum Village
111	HWC Nyukong	Sub Center	Upper Siang	CHC Tuting	Nyukong
112	HWC Ranglua	Sub Center	Longding	Lawnu Block	Ranglua
113	HWC Gelling	Sub Center	Upper Siang	CHC Tuting	Gelling
114	Ayush Health &Wellness Centre Papu	Ayush Health & Wellness Center	Itanagar Capital Region	Naharlagun	Papu
115	PHC GENSI	Primary Health Center	Lower Siang	GENSI	GENSI
116	HWC SC GARU	Sub Center	Lower Siang	GENSI	GARU
117	AHWC SEREN	Ayush Health & Wellness Center	Lower Siang	RAMLE BANGO	SEREN

118	HWC-SC, Jeram	Sub Center	Upper Subansiri	Daporijo	Jeram
119	HWC-SC Tabarijo	Sub Center	Upper Subansiri	Maro	Tabarijo
120	HWC-SC, Bui	Sub Center	Upper Subansiri	Gusar	Bui
121	HWC-SC Param	Sub Center	Upper Subansiri	Gite Ripa	Param
122	HWC-SC, Aranalo	Sub Center	Upper Subansiri	Gite Ripa	Aranalo
123	HWC-SC- Haji	Sub Center	Upper Subansiri	Baririjo	Haji
124	HWC-SC Panimuri	Sub Center	Upper Subansiri	Baririjo	Panimuri
125	HWC-SC, Yatekripa	Sub Center	Upper Subansiri	Maro	Yatekripa
126	HWC-SC, Dula	Sub Center	Upper Subansiri	Maro	Dula
127	HWC-SC, Paktung	Sub Center	Upper Subansiri	Payeng	Paktung
128	HWC-SC,Pagenalo	Sub Center	Upper Subansiri	Siyum	Pagenalo
129	HWC-SC, Orak	Sub Center	Upper Subansiri	Limeking	Orak
130	Sub centre Modirijo	Sub Center	Itanagar Capital Region	Itanagar	Modirijo
131	HWO-SC, Riddi	Sub Center	Upper Subansiri	Taksing	Riddi
132	HWC-SC, Rakmi	Sub Center	Upper Subansiri	Nacho	Rakmi
133	HWC-SC, Lebri	Sub Center	Upper Subansiri	Baririjo	Lebri
134	AHWC-SC, Sippi	Ayush Health & Wellness Center	Upper Subansiri	Daporijo	Sippi
135	Rajbhawan Dispensary	Urban Primary Health Center	Itanagar Capital Region	Itanagar	A sector Itanagar
136	AHWC-SC, Podamara	Ayush Health & Wellness Center	Upper Subansiri	Jaring	Podamara
137	AHWC-SC Riba	Ayush Health & Wellness Center	Upper Subansiri	Giteripa	Riba
138	AHWC-SC, Hane	Ayush Health & Wellness Center	Upper Subansiri	Giteripa	Hane
139	AHWC-SC, Biakrijo	Ayush Health & Wellness Center	Upper Subansiri	Giteripa	Biakrijo

140	AHWC-SC, Riko	Ayush Health & Wellness Center	Upper Subansiri	Baririjo	Riko
141	AHWC-SC Ayingmoring	Ayush Health & Wellness Center	Upper Subansiri	Nacho	Ayingmoring
142	PHC- Baririjo	Primary Health Center	Upper Subansiri	Baririjo	Baririjo
143	PHC- Gusar	Primary Health Center	Upper Subansiri	Gusar	Gusar
144	HWC Jullang	Sub Center	Itanagar Capital Region	Itanagar	Jullang
145	PHC Chetam	Primary Health Center	Upper Subansiri	Chetam	Chetam
146	PHC Giba	Primary Health Center	Upper Subansiri	Giba	Giba
147	PHC Kodak	Primary Health Center	Upper Subansiri	Taliha	Kodak
148	PHC Siyum	Primary Health Center	Upper Subansiri	Siyum	Siyum
149	PHC Taksing	Primary Health Center	Upper Subansiri	Taksing	Taksing
150	PHC Chimpu	Primary Health Center	Itanagar Capital Region	Itanagar	Chimpu
151	PHC JEMEITHANG	Primary Health Center	Tawang	JEMEITHANG-DUDUNGHAR	JEMEITHANG
152	Mandalaphudung	Sub Center	West Kameng	Dirang	Mandalaphudung
153	HWC Kamengbari	Sub Center	West Kameng	CHC Bhalukpong	Kamengbari
154	HWC LEMBERDUNG	Sub Center	Tawang	TAWANG	LEMBERDUNG
155	HWC THONGLENG	Sub Center	Tawang	LUMLA	THONGLENG
156	HWC MAGO	Sub Center	Tawang	JANG-THINGBU	MAGO

157	Changliang	Sub Center	Lohit	Tezu	Changliang
158	PHC KITPI	Primary Health Center	Tawang	KITPI	KITPI
159	Tidding	Sub Center	Lohit	Tezu	Tidding
160	HWC Ganga	Sub Center	Itanagar Capital Region	Itanagar	Ganga
161	HWC BICHOM	Sub Center	West Kameng	CHC Nafra	BICHOM
162	Kahre	Sub Center	Lohit	Wakro	Kahre
163	HWC JANGDA	Sub Center	Tawang	JANG-THINGBU	JANGDA
164	HWC BURAGAON	Sub Center	West Kameng	Sinchung	Buragaon
165	Tillai	Sub Center	Lohit	Wakro	Tillai
166	HWC Wanghoo	Sub Center	West Kameng	Singchung	Wanghoo
167	PHC Damin	Primary Health Center	Kurung Kumey	Damin	Damin
168	AHWC Huri	Ayush Health & Wellness Center	Kurung Kumey	Damin	Huri
169	AHWC Nampe	Ayush Health & Wellness Center	Kurung Kumey	Damin	Nampe
170	PHC BONGLENG	Primary Health Center	Tawang	MOGTO	BONGKAR
171	PHC LHOU	Primary Health Center	Tawang	JANG - THINGBU	LHOU
172	Keyang SC	Sub Center	East Kameng	Chayangtajo	Keyang
173	Namchar Bagang SC	Sub Center	East Kameng	Chayangtajo	Namchar Bagang
174	Sawa SC	Sub Center	East Kameng	Sawa	Sawa
175	Lada SC	Sub Center	East Kameng	Bameng	Lada
176	Pakke SC	Sub Center	East Kameng	Bameng	Pakke
177	Paksha SC	Sub Center	East Kameng	Bameng	Paksha

178	Tagang Warrang SC	Sub Center	East Kameng	Pipu	Tagang Warrang
179	Kotte Camp SC	Sub Center	East Kameng	Pipu	Kotte Camp
180	Sebibo SC	Sub Center	East Kameng	Seppa	Sebibo
181	Pachi SC	Sub Center	East Kameng	Seppa	Pachi
182	Pampoli SC	Sub Center	East Kameng	Seppa	Pampoli
183	Kakukao SC	Sub Center	East Kameng	Seppa	Kakukao
184	PHC Thembang	Primary Health Center	West Kameng	Thembang	Thembang
185	Nere SC	Sub Center	East Kameng	Bana	Nere
186	Ningcho SC	Sub Center	East Kameng	Bana	Ningcho
187	Seba SC	Sub Center	East Kameng	Bana	Seba
188	Margingla SC	Ayush Health & Wellness Center	East Kameng	Khenewa	Margingla
189	Rilloh	Primary Health Center	Pakke Kessang	Pakke Kessang	Rilloh
190	AHWC Chubam	Ayush Health & Wellness Center	Longding	Chubam block	Ozakho village
191	AHWC Longkhaw	Ayush Health & Wellness Center	Longding	Pongchau Block	Longkhaw
192	HWC pumao	Sub Center	Longding	Longding Block	Pumao
193	AHWC Konnu	Ayush Health & Wellness Center	Longding	Pongchau Block	Konnu village
194	SC Bonia	Sub Center	Longding	Pongchau Block	Bonai
195	HWC Banfera	Sub Center	Longding	Kanubari Block	Banfera
196	PHC Lawnu	Primary Health Center	Longding	Lawnu Block	Lawnu
197	PHC k. Noknu	Primary Health Center	Longding	Pongchau Block	K.Noknu

198	AHWC Mintong	Ayush Health & Wellness Center	Longding	Longding	Mintong
199	AHWC Khanu	Ayush Health & Wellness Center	Longding	Wakka	Khanu
200	SC Lakbak Gongo	Sub Center	Upper Subansiri	Baririjo	Lakbak Gongo
201	SC Siga	Sub Center	Upper Subansiri	Chetam	Siga
202	SC Nava	Sub Center	Upper Subansiri	Limeking	Nava
203	SC- Riamuk	Sub Center	Upper Subansiri	Payeng	Riamuk
204	SC- Lingram	Sub Center	Upper Subansiri	Taliha	Lingram
205	SC- Eru	Sub Center	Upper Subansiri	Siyum	Eru
206	SC- Gite Ripa	Sub Center	Upper Subansiri	Gite Ripa	Gite Ripa
207	HWC-SC Yibuk	Sub Center	Siang	Boleng	Yibuk
208	HWC-SC Pareng	Sub Center	Siang	Boleng	Pareng
209	HWC-SC Pangkang	Sub Center	Siang	Boleng	Pangkang
210	SC Ugeng	Sub Center	Siang	Boleng	Ugeng
211	HWC RHO	Sub Center	Tawang	JANG-THINGBU	RHO
212	HWC-SC Riga	Sub Center	Siang	Boleng	Riga
213	Sanliam	Sub Center	Tirap	Lazu Block	Sanliam
214	SC Sitang	Sub Center	Siang	Boleng	Sitang
215	Barap	Ayush Health & Wellness Center	Tirap	Lazu Block	Barap
216	HWC-SC Riew	Sub Center	Siang	Pangin	Riew
217	HWC-SC Begging	Sub Center	Siang	Pangin	Begging
218	Nogna	Ayush Health & Wellness Center	Tirap	Lazu Block	Nogna
219	HWC KHARTENG	Sub Center	Tawang	LUNGLA	KHARTENG
220	SC Jorsing	Sub Center	Siang	Pangin	Jorsing

221	Charju	Sub Center	Tirap	Khonsa Block	Charju
222	UPHC Pasighat	Urban Primary Health Center	East Siang	Pasighat	Pasighat
223	HWC KHET	Sub Center	Tawang	MOGTO	KHET
224	Lamsa	Sub Center	Tirap	Khonsa Block	Lamsa
225	AHWC MANGNAM	Ayush Health & Wellness Center	Tawang	LUMLA	MANGNAM
226	HWC-SC Parong-I	Sub Center	Siang	Boleng	Parong-I
227	Old Katang	Sub Center	Tirap	Bari-Basip Block	Old Katang
228	PHC Namsing	Primary Health Center	East Siang	Mebo	Namsing
229	HWC-SC Parong-II	Sub Center	Siang	Boleng	Parong-II
230	New Lainwang	Sub Center	Tirap	Bari-Basip Block	New Lainwang
231	PHC Borguli	Primary Health Center	East Siang	Mebo	Borguli
232	Old Kolagaon	Sub Center	Tirap	Bari-Basip Block	Old Kolagaon
233	Kaimai	Sub Center	Tirap	Khonsa Block	Kaimai
234	PHC Liromoba	Primary Health Center	West Siang	Block	Liromoba
235	Chasa	Sub Center	Tirap	Khonsa Block	Chasa
236	PHC Rani	Primary Health Center	East Siang	Ruksin	Rani
237	Namsang	Sub Center	Tirap	Namsang Block	Namsang
238	Kenon	Sub Center	Tirap	Namsang Block	Kenon
239	Hwc Gemo-Tali	Sub Center	West Siang	Chc kamba	Gemo-Tali

240	Makat	Sub Center	Tirap	Namsang Block	Makat
241	HWC Ngomdir	Sub Center	West Siang	Bagra circle	Ngomdir
242	HWC pobdi	Sub Center	West Siang	Aalo west	Pobdi
243	PHC Dadam	Primary Health Center	Tirap	Khonsa Block	Dadam
244	PHC Kapu	Primary Health Center	Tirap	Khonsa Block	Kapu
245	PHC Sille	Primary Health Center	East Siang	Ruksin	Sille
246	PHC Paniduria	Primary Health Center	Tirap	Khonsa Block	Paniduria
247	PHC Yagrung	Primary Health Center	East Siang	Pasighat	Yagrung
248	HWC, Kumari	Sub Center	Namsai	Lekang	Kumari
249	PHC Bilat	Primary Health Center	East Siang	Ruksin	Bilat
250	PHC Soha	Primary Health Center	Tirap	Namsang Block	Soha
251	HWC darka	Sub Center	West Siang	Aalo West	Darka
252	PHC Notun Kheti	Primary Health Center	Tirap	Namsang Block	Notun Kheti
253	PHC Korang	Primary Health Center	East Siang	Ruksin	Korang
254	HWC-SC Ayeng	Sub Center	East Siang	Mebo	Ayeng
255	HWC-SC Motum	Sub Center	East Siang	Mebo	Motum
256	HWC-SC Berung	Sub Center	East Siang	Pasighat	Berung
257	HWC-SC Takilalung	Sub Center	East Siang	Pasighat	Takilalung
258	HWC-SC Lokpeng	Sub Center	Siang	Pangin	Lokpeng
259	HWC-SC Tarak	Sub Center	Siang	Pangin	Tarak

260	HWC-SC Komsing	Sub Center	Siang	Pangin	Komsing
261	HWC-SC Rottung	Sub Center	Siang	Pangin	Rottung
262	HWC-SC Yemsing	Sub Center	Siang	Pangin	Yemsing
263	HWC-SC Mangnang	Sub Center	East Siang	Ruksin	Mangnang
264	HWC-SC Sika-Tode	Sub Center	East Siang	Ruksin	Sika-Tode
265	HWC- SC Depi	Sub Center	East Siang	Ruksin	Depi
266	HWC-SC Debing	Sub Center	East Siang	Ruksin	Debing
267	HWC-SC Jomo	Sub Center	Siang	Rumgong	Jomo
268	HWC-SC Niglok	Sub Center	East Siang	Ruksin	Niglok
269	HWC-SC Molom	Sub Center	Siang	Rumgong	Molom
270	HWC Ngorlung	Sub Center	East Siang	Ruksin	Ngorlung
271	HWC Ledum	Sub Center	East Siang	Ruksin	Ledum
272	HWC-SC Damda	Sub Center	Siang	Rumgong	Damda
273	HWC-SC Lorging	Sub Center	Siang	Rumgong	Lorging
274	HWC-SC Mirem	Sub Center	East Siang	Ruksin	Mirem
275	AHWC Nyorak	Ayush Health & Wellness Center	West Siang	Aalo	Nyorak Rakte
276	HWC Jirdin	Sub Center	West Siang	Aalo East	Jirdin
277	HWC-SC Remi	Sub Center	East Siang	Ruksin	Remi
278	AHWC DEGI POTOM	Ayush Health & Wellness Center	West Siang	Darak	Degi potom
279	HWC-SC Mer	Sub Center	East Siang	Mebo	Mer
280	HWC-SC Mikong	Sub Center	East Siang	Ruksin	Mikong
281	SC Airfield	Sub Center	East Siang	Pasighat	Airfield
282	Primary health centre Logum Jini	Primary Health Center	West Siang	Logum Jini	Logum Jini

283	HWC-SC Bogne	Sub Center	Siang	Kaying	Bogne
284	AHWC SC KEAK	Ayush Health & Wellness Center	West Siang	Kamba ADC	Keak
285	HWC-SC Reying	Sub Center	Siang	Payum	Reying
286	AHWC Doko Putu	Ayush Health & Wellness Center	West Siang	Yomcha	Doko Putu
287	PHC Payum	Primary Health Center	Siang	Payum	Payum
288	Angu	Ayush Health & Wellness Center	West Siang	Bagra	Angu
289	PHC Kaying	Primary Health Center	Siang	Kaying	Kaying
290	PHC Pessing	Primary Health Center	Siang	Rumgong	Pessing
291	PHC Lazu	Primary Health Center	Tirap	Lazu Block	Lazu
292	PHC Borduria	Primary Health Center	Tirap	Khonsa Block	Borduria
293	PHC Riga	Primary Health Center	Siang	Boleng	Riga
294	Hwc siru rijo	Sub Center	West Siang	Yomcha	Tea garden
295	PHC Dite Dime	Primary Health Center	Siang	Boleng	Dite Dime
296	PHC Supple	Primary Health Center	Siang	Boleng	Supple
297	PHC Yembung	Primary Health Center	Siang	Pangin	Yembung
298	Sc Dumde kayi	Sub Center	West Siang	Block	Dumde kayi
299	HWC, Jona III	Sub Center	Namsai	Namsai	Jona
300	HWC, Momong	Sub Center	Namsai	Chowkham	Momong

301	AAM PHC INNAO	Primary Health Center	Changlang	DIYUN	DIYUN
302	HWC KAMBU	Sub Center	West Siang	CHC kamba	Kambu
303	UPPER BALISO	Primary Health Center	Pakke Kessang	Seijosa	Upper Baliso
304	VEO	Primary Health Center	Pakke Kessang	Pakke kessang	Veo
305	Devegollo	Sub Center	Pakke Kessang	Pakke kessang	Devegollo
306	LONGRAN	Sub Center	Changlang	Changlang	Longran
307	Ayush health and wellness centre, Balupathar	Ayush Health & Wellness Center	Changlang	Diyun	Balupathar
308	Deban	Sub Center	Changlang	Miao	Deban
309	HWC Bijoypur	Sub Center	Changlang	Bordumsa	Bijoypur
310	Hwc Rima putok	Sub Center	Changlang	Nampong Rima	Rima
311	HWC Mudoi	Sub Center	Changlang	Diyun	Mudoi
312	AAM- PHC NAMTOK	Primary Health Center	Changlang	Changlang	Namtok
313	HWC Kantang	Sub Center	Changlang	Kantang	Kantang
314	SC Yanman	Sub Center	Changlang	Khimiyong	Yanman
315	SC Manabhum	Sub Center	Changlang	Diyun	Manabhum
316	SC Tongthung Havi	Ayush Health & Wellness Center	Changlang	Khimiyong	Tongthung havi
317	HWC Phangtip	Sub Center	Changlang	Yatdam	Phangtip HWC
318	HWC SC Songking	Sub Center	Changlang	Khagam CD block	Songking
319	PHC Nampong	Primary Health Center	Changlang	Nampong	Nampong

320	PHC iduli	Primary Health Center	Lower Dibang Valley	Roing-Koronu block	Iduli
321	HWC Borkhet	Sub Center	Changlang	Bordumsa	Borkhet
322	SC Renuk	Sub Center	Changlang	MANMAO	Renuk
323	Rajanagar	Sub Center	Changlang	Bordumsa	Rajanagar
324	AAM WATLOM	Sub Center	Changlang	Yatdam	Watlom
325	Kherembisa	Sub Center	Changlang	Bordumsa	Kherembisa
326	PHC Balek	Primary Health Center	East Siang	Pasighat	Balek
327	AHWC Lewang	Ayush Health & Wellness Center	Changlang	Khagam -Miao	Lewang
328	AHWC Sohelaktong	Ayush Health & Wellness Center	Changlang	Kantang	Sohelaktong
329	AHWC KENGKHU	Ayush Health & Wellness Center	Changlang	Changlang	Kengkhu
330	Primary Health Centre Kharsang	Primary Health Center	Changlang	Miao Khagam	Kharsang
331	SC Lungpang	Sub Center	Changlang	Nampong	Lungpang
332	Namphai	Sub Center	Changlang	Khagam	NAMPHAI
333	College campus	Sub Center	Changlang	Block	Village
334	Gumtung	Sub Center	Pakke Kessang	Pakke kessang	Gumtung
335	Palin	Sub Center	Pakke Kessang	Pakke kessang	Palin
336	Pakro	Ayush Health & Wellness Center	Pakke Kessang	Pakke kessang	Pakro
337	Alongtopte	Sub Center	Pakke Kessang	Pakke kessang	Alongtopte
338	Khodaso	Ayush Health & Wellness Center	Pakke Kessang	Pakke kessang	Khodaso
339	Niti-Darlong	Ayush Health & Wellness Center	Pakke Kessang	Seinosa	Niti Darlong

340	Goloso	Ayush Health & Wellness Center	Pakke Kessang	Seijosa	Goloso
341	Dipik	Sub Center	Pakke Kessang	Seijosa	Dipik
342	PHC wakka	Primary Health Center	Longding	Wakka	Wakka
343	Patte	Sub Center	Pakke Kessang	Seijosa	Patte
344	Nomorah	Sub Center	Pakke Kessang	Seijosa	Nomorah
345	HWC Kokila	Sub Center	Papum Pare	Balijan	Kokila
346	AYUSH Health and Wellness Center, Niji	Ayush Health & Wellness Center	Kamle	Gepen	Niji
347	AYUSH Health and Wellness Center, Yattap	Ayush Health & Wellness Center	Kamle	Kamporijo	Yattap
348	SC Asali	Sub Center	Lower Dibang Valley	Roing-Koronu block	Asali
349	SC chidu	Sub Center	Lower Dibang Valley	Roing -Koronu block	Chidu
350	Sc meka	Sub Center	Lower Dibang Valley	Roing-Koronu block	Meka
351	HWO, Solungtoo	Sub Center	Namsai	Namsai	Solungtoo
352	Sc New Abali	Sub Center	Lower Dibang Valley	Roing-Koronu block	Abali
353	HWC, Dharampur	Sub Center	Namsai	Namsai	Dharampur
354	HWC,Bogamur	Sub Center	Namsai	Namsai	Bogamur
355	HWC, Mannow	Sub Center	Namsai	Namsai	Mannow
356	Sc bijari	Sub Center	Lower Dibang Valley	Dambuk-paglam block	Bijari
357	HWC, Wingko	Sub Center	Namsai	Namsai	Wingko

358	Sc bomjir	Sub Center	Lower Dibang Valley	Dambuk-paglam	Bomjir
359	Nongtaw Khamti	Sub Center	Namsai	Namsai	Nongtaw Khamti
360	SC Newelope	Sub Center	Lower Dibang Valley	Hunli-desali block	New elope
361	HWC, Sitpanimiri	Sub Center	Namsai	Lekang	Sitpanimiri
362	HWC, Nongkhon	Sub Center	Namsai	Lekang	Nongkhon
363	AHWC NYUKMADUNG	Ayush Health & Wellness Center	West Kameng	Dirang	Nyukmadung
364	AHWC NAMSHU	Ayush Health & Wellness Center	West Kameng	Dirang	Namshu
365	Malinye	Sub Center	Dibang Valley	Etalin	Malihney
366	PHC Bagra	Primary Health Center	West Siang	Aalo West	Higi Bagra
367	HWO bishmaknagar	Sub Center	Lower Dibang Valley	Roing-Koronu block	Bishmaknagar
368	SC Brinli	Sub Center	Lower Dibang Valley	Hunli-desali block	Brinli
369	AHWC DENLO	Ayush Health & Wellness Center	Lower Dibang Valley	Roing -koronu block	Denlo
370	PHC Desali	Primary Health Center	Lower Dibang Valley	Hunli-desali block	Desali
371	PHC Paglam	Primary Health Center	Lower Dibang Valley	Dambuk - Paglam block	Paglam
372	Sub-centre Seema	Sub Center	Papum Pare	Sagalee	Seema
373	Ayush Health & Wellness Centre Gai	Ayush Health & Wellness Center	Papum Pare	Sagalee	Gai
374	Ayush Health & Wellness Centre Lichi	Ayush Health & Wellness Center	Papum Pare	Kimin	Lichi

375	Sub-centre Sonajuli	Sub Center	Papum Pare	Doimukh	Sonajuli
376	Mipi	Sub Center	Dibang Valley	Anini-mipi	Mipi
377	Anelih	Sub Center	Dibang Valley	Anelih-arzoo	Anelih
378	Dambuen	Sub Center	Dibang Valley	Anini-mipi	Dambuen
379	Alinye	Sub Center	Dibang Valley	Anini-mipi	Aliney
380	New anaya	Sub Center	Dibang Valley	Anelih-arzoo	New anaya
381	Emuli	Sub Center	Dibang Valley	Anini-mipi	Emuli
382	Gipulin	Ayush Health & Wellness Center	Dibang Valley	Anini-mipi	Gipulin
383	Health and Wellness Center, Mengikabak	Sub Center	Kamle	Kamporijo	Mengikabak
384	SC Chanu	Sub Center	Longding	Chubam Block	Chanu
385	HWC Sange	Sub Center	West Kameng	Dirang	Sange
386	AHWC KAROI	Ayush Health & Wellness Center	Papum Pare	Sagalee	Karoi
387	UPHC Itafort	Urban Primary Health Center	Itanagar Capital Region	Itanagar	D sector Itanagar
388	HWC Pachin	Sub Center	Itanagar Capital Region	Naharlagun	Pachin
389	HWC Lobi	Sub Center	Itanagar Capital Region	Itanagar	Lobi
390	AHWC APPBN Chimpu	Ayush Health & Wellness Center	Itanagar Capital Region	Itanagar	Chimpu
391	AHWC Nginu	Ayush Health & Wellness Center	Longding	Longchan Block	Nginu
392	PHC Etalin	Primary Health Center	Dibang Valley	Etalin	Etalin
393	AHWC JERIGAON	Ayush Health & Wellness Center	West Kameng	Nafra	Jerigaon