TENDER DOCUMENT

FOR

SUPPLY ALONG WITH WARRANTY OF SOLAR EQUIPMENTS AND/OR MEDICAL APPLIANCES FOR PRIMARY HEALTH CENTERS

In

THE DISTRICTS OF NORTH KARNATAKA

by

SELCO Solar Light Pvt Ltd
#690 15th Cross J P Nagar 2nd Phase
Bangalore - 560078

(May 2021)

1. Tender Notice

a. Introduction

SELCO Solar Light Private Limited, hereon mentioned as SELCO ,started in 1995, is a well recognized social enterprise known for its path breaking work in poverty alleviation by providing energy access to underserved communities. SELCO specializes in designing, installation and maintenance of solar applications for households, educational institutions, health centers, small businesses and other such renewable energy needs. SELCO works with a huge network of partners all over the country and is well known for its solutions.

Currently, SELCO in partnership with GIZ is implementing solar powered solutions in 36 Primary Health Centers of North Karnataka. Through this tender, SELCO invites quotations from vendors for supplying solar equipment and medical appliances to be installed as part of the project.

b. Invitation for Tender:

Selco invites Online Bid for the Tender on “SUPPLY OF SOLAR EQUIPMENTS AND/OR MEDICAL APPLIANCES FOR PRIMARY HEALTH CENTERS IN THE DISTRICTS NORTH KARNATAKA” from Bidders who are a ‘Registered Company with manufacturing or supplying facility in India.

The Tender Papers & Specifications may be downloaded from Web site https://selco-india.com/ (For view and download). Offer / Bid is required to be submitted by email mode only to procurement@selco-india.com.

c. Time Schedule for the Bid

S. No.	Description	
1	**Tender Notice No.**	SELCO/GIZ/01-2021
2	**Date of Tender Advertisement**	(5-5-2021)
3	**Particulars of the work**	Supply of Solar equipment and/or Healthcare appliances for 36 primary health centers across north Karnataka with comprehensive maintenance at the identified sites as per Warranty and Service Terms.
4	**Tender Fee (Rs)/EMD**	NA
5	**Last Date to receive *Pre-Bid queries***	Kindly send your pre-bid queries by 10.05.2021 via email only to **procurement@selco-india.com**
6	**Last date for online submission of Tender**	20.05.2021 up to 17:00 hrs
7	**Mode of submission of Tender**	Only by email **procurement@selco-india.com**
8	**Period of work**	To be completed within 60 days from the date of award of work.

2. Bid Details and Important Instruction to Bidders

a. The bidder can bid for either/ both Solar System or/and Medical Equipment.
b. The technical bid along with financial bid are required to be submitted via email only at **procurement@selco-india.com**. No hard copies will be accepted. The technical and commercial bid shall comprise all the technical details of solar equipments and medical appliances offered in accordance with MNRE and recognised Medical Authorities in India specifications . The last date for submission of bid is 20.05.2021 up to 17:00 hrs.
c. The tender is invited on behalf of GIZ. However, Letter of Acceptance / letter of Intent/work order shall be issued by SELCO. Bidders will have to abide by all the terms and conditions against Letter of Intent (LOI) / Letter of Acceptance (LOA) / work order placed by Selco.
d. The pre-bid queries can be sent by 10.05.2021 via email only to SELCO as per below given details. The replies to the queries will be posted on the Selco website within 3 working days in the form of FAQs. No separate reply emails will be sent to the bidders.
e. All queries and clarifications that may be required pertaining to this Tender should be referred to:

Mr. Sachindra S N,

Area Manager, Logistics

Selco Solar Light Pvt Ltd

No.690, 15th cross, J.P. Nagar 2nd phase

Bengaluru-560078

Email - **procurement@selco-india.com**

3. Eligibility Criteria for Bidders

a. The bidder should be: A Registered Company in India for supply of - Solar components and medical appliances (Relevant Test Certificates for the components recognized organisation in India is mandatory).
b. The bidder should have a minimum 3-year average turnover of Rs. 1 Crore. The certified copy of balance sheet for any 3 consecutive years (2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant along with CA certificate for turnover & Net worth to be included in Technical bid.
c. The bidder should provide all the materials as per the technical specifications given in the tender document. In case of any changes / modification identified at later stages of the procurement process / installation in the field, then SELCO will not be responsible for payment due to rejection.
d. The Medical Equipments must have a valid United States' Food and Drug Administration (FDA) / Conformitè Europëenne (CE) /Indian Certification for Medical Devices (ICMED) certification as applicable.
e. Valid ISO/equivalent certificate of the original Equipment Manufacturer for the Medical Equipments.

f. The bidder should have Test Certificates (at least 1 certificate) for the Solar components as per MNRE/BIS specifications from recognized testing centre not older than 5 years. The bidder has to submit these test reports along with Bid.

g. The bidders should have at least one service centre or authorised dealers for the equipment in Karnataka at the time of bid participation and the bidder must submit the details of the service centre along with the Bid.

h. Self-Declaration Certificate to declare that the organization is not blacklisted.

4. Scope of Work and Technical Specifications

The scope of work includes SUPPLY OF SOLAR EQUIPMENTS AND/OR MEDICAL APPLIANCES FOR 36 PRIMARY HEALTH CENTERS IN THE DISTRICTS NORTH KARNATAKA, providing comprehensive warranty as per terms at various sites in villages/hamlet of various districts of North Karnataka at sites identified by Selco/GIZ as per the technical specifications given in section 5.1.

Primary Health Center Details:

SL No	District	Address of the PHC	Capacity of the solar solution
1	Belagavi	Primary Health Center, Kankumbi, Khanapur Taluk - 591302	Solar Panel -3.6 Kwp, Battery Bank - 180Ah@ 96V, Solar PCU - 5KW,6kVA @ 96V
2	Bidar	Primary Health Center, Lakhangaon, Bhalki Taluk - 585328	Solar Panel -3.6 Kwp, Battery Bank - 180Ah@ 96V, Solar PCU - 5KW,6kVA @ 96V
3	Dharwad	Primary Health Center, Mukkal, Kalghatagi - 581204	Solar Panel -3.6 Kwp, Battery Bank - 180AH@ 96V, Solar PCU - 5KW,6kVA @ 96V
4	Kalburgi	Primary Health Center, Chimanchod, Chincholi Taluk - 585307	Solar Panel -3.6 Kwp, Battery Bank - 180AH@ 96V, Solar PCU - 5KW,6kVA @ 96V
5	Uttara Kannada	Primary Health Center, Katur, Mundgod Taluk - 581349	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
6	Uttara Kannada	Primary Health Center, Malagi, Mundgod Taluk - 581349	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
7	Uttara Kannada	Primary Health Center, Hunagunda, Mundgod Taluk - 581349	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
8	Raichur	Primary Health Center, Gonal[Ragalparvi], Sindhanur Taluk - 584128	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
9	Yadgir	Primary Health Center, Malla B, Shorapur Taluk - 585224	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V

10	Bellary	Primary Health Center, kollour, Bellary Taluk - 583116	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
11	Bellary	Primary Health Center, Gudekote, Kudligi Taluk - 583135	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
12	Koppal	Primary Health Center, Venkatagiri, Gangavathi Taluk - 583227	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
13	Raichur	Primary Health Center, Matmari, Raichur Taluk - 584202	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
14	Raichur	Primary Health Center, Gunjahalli, Raichur Taluk - 584132	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
15	Haveri	Primary Health Center, Katenhalli, Haveri Taluk - 581110	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
16	Haveri	Primary Health Center, Kalakeri, Hanagal Taluk - 581104	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
17	Belgavi	Primary Health Center, Londa, Khanapur Taluk - 591302	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
18	Belgavi	Primary Health Center, Kakkeri, Khanapur Taluk - 591106	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
19	Chikkodi	Primary Health Center, Boragoav, Chikodi Taluk - 591216	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
20	Dharwad	Primary Health Center, Hebballi, Dharwad District - 580112	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
21	Dharwad	Primary Health Center, Byahatti, Hubli Taluk - 580023	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
22	Bagalkot	Primary Health Center, Belagali, Mudhol Taluk - 587113	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
23	Bagalkot	Primary Health Center, Sutagundar, Bagalot District - 587207	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
24	Vijayapur	Primary Health Center, Honawad, Vijayapura District - 586130	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
25	Vijayapur	Primary Health Center, Munagoli, Bagewadi Taluk - 586203	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
26	Haveri	Primary Health Center, Kabbur, Hanagal Taluk - 581104	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V

27	Kalburgi	Primary Health Center, Petsirur, Chittapur Taluk - 585211	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
28	Bidar	Primary Health Center, Basvakalyan, Basvakalyan Taluk - 585419	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
29	Bidar	Primary Health Center, Holesamudra, Aurad Taluk - 585326	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
30	Yadgir	Primary Health Center, Yelheri, Gurumitkal Taluk - 585214	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
31	Gadag	Primary Health Center, Bagewadi, Mundargi Taluk - 582118	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
32	Gadag	Primary Health Center, Kalkeri, Mundargi Taluk - 582118	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
33	Bagalkot	Primary Health Center, Hippargi, Jhamakhani Taluk - 587311	Solar Panel -5.4 Kwp, Battery Bank - 200AH@ 120V, Solar PCU - 6KW,7.5kVA @ 120V
34	Bellary	Primary Health Center, Sirigere, Siraguppa Taluk - 583121	Solar Panel -7.2 kWp, Battery Bank - 270Ah@ 120V, Solar PCU - 8 KW,10kVA @ 120V
35	Koppal	Primary Health Center, Hanamanal, Kushtagi Taluk - 583277	Solar Panel -7.2 kWp, Battery Bank - 270Ah@ 120V, Solar PCU - 8 KW,10kVA @ 120V
36	Yadgir	Primary Health Center, Rajan kollur, Shorapur Taluk - 585224	Solar Panel -7.2 kWp, Battery Bank - 270AH@ 120V, Solar PCU - 8 KW,10kVA @ 120V

Note:- *The capacity of the Solar System and quantity/type of Medical equipment may vary across Health centers.

5. Technical Specification and Warranty of the Solar Components

5.1 System Details

There are 3 different capacities of Solar Systems that has to be supplied by the bidders

SL No	Type of System	Quantity
1	3.6 KWp	4
2	5.4 KWp	29
3	7.2 KWp	3

a. 3.6 kW Solar PV Standalone Power plant

Sl.No	Products	Capacity	Qty
1	Solar Module (72 Cells)	300 Wp, 24 V	12 Nos.
2	Solar Lead Acid Battery	180 Ah, 12 V	8 Nos.
3	Module Mounting Structure	Structure should withstand minimum 150 km/hr wind speed	1 set
4	Solar Power Conditioning Unit with MPPT & IGBT Technology	5 kW, 6 kVA, 96 V	1 No.
5	Cables and wiring	As per standard	1set.
6	Earthing Cable	10 sq.mm.	As required

7	Array Junction Box (AJB)	MCB & Surge Protection Device	1 Set.
8	Grid Input Protection Box	MCB & Surge Protection Device	1 Set.
9	Battery Rack	Minimum 120 microns galvanisation	1 Set
10	Lightning Protection System	Lightning conductors with earthing strip and its consumables	1 Set
11	Earthing Kit	Earthing enhancing compound.(Chemical kit)with minimum 1.2mtr copper bonded	3 set
12	All electrical consumable	ISI make	As required
13	Misc and miscellaneous	Standard make	As required

b. 5.4 kW Solar PV Standalone Power plant

Sl. No	Products	Capacity	Qty
1	Solar Module (72 Cells)	300 Wp, 24 V	18 Nos.
2	Solar Lead Acid Battery	200 Ah, 12 V	10 Nos.
3	Module Mounting Structure	Structure should withstand minimum 150 km/hr wind speed	1 set

4	Solar Power Conditioning Unit with MPPT & IGBT Technology	6 kW, 7.5 kVA, 120 V	1 No.
5	Cables and wiring	As per standard	1set.
6	Earthing Cable	10 sq.mm.	As required
7	Array Junction Box (AJB)	MCB & Surge Protection Device	1 Set.
8	Grid Input Protection Box	MCB & Surge Protection Device	1 Set.
9	Battery Rack	Minimum 120 microns galvanisation	1 Set
10	Lightning Protection System	Lightning conductors with earthing strip and its consumables	1 Set
11	Earthing Kit	Earthing enhancing compound.(Chemical kit)with minimum 1.2mtr copper bonded	3 set
12	All electrical consumable	ISI make	As required
13	Misc and miscellaneous	Standard make	As required

c. 7.2 kW Solar PV Standalone Power plant

Sl. No	Products	Capacity	Qty
1	Solar Module (72 Cells)	300 Wp, 24 V	24 Nos.
2	Solar Lead Acid Battery	135 Ah, 12 V	20 Nos.
3	Module Mounting Structure	Structure should withstand minimum 150 km/hr wind speed	1 set
4	Solar Power Conditioning Unit with MPPT & IGBT Technology	8 kW, 10 kVA, 120 V	1 No.
5	Cables and wiring	As per standard	1set.
6	Earthing Cable	10 sq.mm.	As required
7	Array Junction Box (AJB)	MCB & Surge Protection Device	1 Set.
8	Grid Input Protection Box	MCB & Surge Protection Device	1 Set.
9	Battery Rack	Minimum 120 microns galvanisation	1 Set
10	Lightning Protection System	Lightning conductors with earthing strip and its consumables	1 Set
11	Earthing Kit	Earthing enhancing compound.(Chemical kit)with minimum 1.2mtr copper bonded	3 set

12	All electrical consumable	ISI make	As required
13	Misc and miscellaneous	Standard make	As required

5.2 Component-wise Technical Details

S.No	Component Name	Technical Specifications
1	Solar Panel	Solar PV module array to be of high efficiency Solar Modules utilizing Crystalline Silicon (Multi/Mono crystalline) Solar PV cells. Since the modules would be used in high voltage circuits, the High Voltage Insulation test shall be carried out on each module and a test certificate to that effect will have to be provided. Solar PV Modules shall conform to IEC 61215 Ed 2 and IEC 61730 standard. Test certificates to be submitted along with the bid with other requirements. With RFID on the module, following details to be provided: a) Maximum Power, Pmax b) Open Circuit Voltage, Voc c) Short Circuit Current ,Isc d) Voltage at Max Power Vmp e) Current at Max power Imp f) Efficiency of cell, Ef, c g) Efficiency of module, Ef, m

2	Solar Lead Acid Battery	The battery Bank of the solar system shall be Lead acid/VRLA type tubular Gel batteries. The battery to be supplied must be approved from authorized test centers of MNRE. The firm will submit an undertaking along with IEC certificate from the manufacturer of the battery that the batteries supplied are warranted for a period of five years. Main features of the battery (as applicable) a) The batteries shall comprise 2V Cells with suitable capacity at C10 rate. b) Polypropylene/Hard Rubber Container. c) Terminals: Of lead alloy, suitable for bolted connection. d) Recharge ability: at very low rates charging rates as low as 0.05% of the normal charging current. e) High charging efficiencies: Ah efficiency; In excess of 90%. f) Low rate of self discharge: less than 3% per month at 27°C. g) Capacity to sustain partial state of charge should with stand partial state of charge up to six months. h) Very Low maintenance. j) Tripper must be provided for overcharging protection.
3	Module Mounting Structure	a) Structure shall be designed for simple mechanical and electrical installation. It shall support SPV modules at a given orientation, absorb and transfer the mechanical loads to the ground properly with lightning arrester as per IEC 62561 Series(Part 1,2 &&) (Chemical earthing). The mounting structure should be Galvanized & with anticorrosive paint, if required for the joints. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels & shall withstand heavy winds. Support structure design and foundation or fixation mounting arrangements should withstand minimum horizontal wind speed of 140 kmps / hr (Design devalue shall be greater than 140 kmps /hr) on the roof of Health centers. b) Tilt angle adjustment:- Fixed as per roof available at site.

4	Solar Power Conditioning Unit	Minimum Key features desired aMinimum Key features desired are: a) MPPT charge controller to extract upto 30% more power from Panels b) Hybrid charging : Charging from both mains and solar c) Selectable source priority: Choose source priority from solar, battery and grid d) Compliance to IEC standards for safety, reliability and quality. e) Display of Solar Voltage, Battery Voltage, Inverter Output Voltage, Load percentage. e) Solar PCUs with inbuilt MPPT charge controllers are specially designed for solar applications. f) Confirmed National & International standards for safety and efficiency and reliability, such as IEC or as specified by MNRE
5	Cables and Accessories	All the cables shall be supplied conforming to IS 694 & shall be of 650. Only PVC Copper cables shall be used. The size of the cables between array interconnections, array to junction boxes, junction boxes to charge Controllers etc shall be so selected to keep the voltage drop and losses to the minimum. All installation accessories, which are required to install and successfully commission the power plant, are to be provided. Only copper wires of appropriate size and of reputed make shall have to be used. Cables are high temperature resistant and flame retardant cables that have been made using special technology rated for higher current carrying capacity.
6	Earthing Cable	10 Sq mm Copper wire

7	Array Junction Box (AJB)	a) The junction boxes shall be dust vermin and waterproof and made of FRP / Thermo Plastic with IP65 protection. b) The terminals shall be connected to copper bus bar arrangement of proper sizes. c) The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables. d) Suitable markings shall be provided on the bus bar for easy identification and cable ferrules shall be fitted at the cable termination points for identification. e) The rating of the JB's shall be suitable with adequate safety factor to interconnect the Solar PV array. f) Surge Protection Device shall be provided inside the Array Junction Boxes. g) Trippers(MCB) as required must be provided for easy maintenance of the module along with junction box.
8	Grid Protection Box	MCB & Surge Protection Device
9	Battery Rack	A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank. Battery interconnecting links shall be provided for interconnecting in series and in parallel as per requirement. Connectors for inter cell connection (series/parallel) shall be maintenance free screws. Insulated terminal covers shall be provided. A proper supporting rack structure to hold the entire set of batteries and structural material shall be hot dip galvanized steel with a minimum galvanisation thickness of 120 microns.
10	Lightning Protection System	Protection shall meet the safety rules as per Indian Electricity Act.
11	Earthing Kit	Earthing Kit contains 8.5Kgs of Earth Enhancing Chemical compound Curenite and Copper bonded 14.2mm 100 microns 1.2mtrs Rod without brazing.
12	All electrical consumable	ISI Make

13	Consumables	Standard make - SS nut and bolts, nails to be supplied for required size.

5.3 ELECTRICAL APPLIANCES

Appliance Name	Quantity
LED Tube Light	**350**

Specifications

a. Input Voltage V - AC 90-300V
b. Lighting Color- Cool White
c. Color Temperature- 3000-6500K
d. Power Consumption- 20W
e. Frequency- 50Hz
f. Operating Temperature- -20 to 60 Degree Centigrade

5.4 Warranty

- The whole system including battery & inverter shall be warranted for 5 years.
- The PV Modules must be warranted for output wattage, which should not be less than 90% at the end of 15 years and 80% at the end of 25 years.
- The Performance Warranty of the Battery Bank should not be less than 5 Years. In case any battery gets defective, during the warranty period of five years the bidder will have to replace the same with a new one free of cost.
- Solar inverter Systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.
- Warranty for Electrical Appliances in section 5.3 should be of minimum 1 year.
- Required Spares for trouble free operation during the Warranty period should be provided along with the system.

6. Technical Specification and Warranty of the Medical Equipments

The list of appliances and quantity is as follows:

SL No	Appliance Name	Quantity
1	Examination Treatment Light for labour room	26
2	Baby warmer	29
3	Needle Cutter	37
4	Oxygen Concentrator	34
5	Suction Apparatus	26
6	Nebuliser	34
7	Digital Microscope	36
8	Centrifuge	34
9	Refrigerator	24
10	Water Purifier	26

Examination Treatment Light for labour room	
Technical Characteristics	1.Colour temperature to be between 3,000 and 5,000 K; shadowless. 2.Maximum illumination level at 1m distance to be at least 60,000 lux. 3. Colour rendering index to be 93 or greater 4. Minimum bulb life required 1,000 hours (incandescent type) or 20,000 hrs (LED type). 5. Field diameter required | |16cm, field depth required | | 50cm. 6. Focal length required | | 65 cm. 7. Heat to light ratio to be ≤ 6 mW/m2. lx. 8. Brightness control to allow full adjustment from zero to maximum illumination. 9. Bulb voltage and type to be clearly labelled on external body. 10. Replacement bulbs to be locally available. 11. Front panel to include power switch and battery state indicator. 12. Automatic switching to battery power in the event of power failure. 13. Should maintain cool temp and the heat disbursed through a exhaust fan.
Power consumption	30 Watt or below
Certificates	Should be FDA / CE approved product
Warranty	1 Year

Baby warmer	
Technical Characteristics	1.Specifications up to: 2000 mm (Height) X 900mm (Width) X 1100 mm (Length). 2.It should be microcontroller based radiant warmer with manual and servo options. 3.It should have facility to display skin set, skin observed temperature in degree C and heat power separately. 4.Should have user friendly touch panel control. 5.It should have ceramic or quartz infrared or calrod heater. 6.It should have audio-visual alarm facility for overheating beyond set temperature range. 7.It should have alarm facility for patient temperature less than or greater than the required temperature i.e. above or below the set range. Machine should sense the skin probe failure and cut off the heater. 8.Warmer head should be rotatable in different direction, so as to allow taking X-ray. 9.It should have alarm for probe failure, power failure, system failure and heater failure. 10.Observation light of 90 to 100foot candles or 1000 Lux (colour temperature range 3700K to 5100K) should be provided for inspection. 11.The desired temperature range from 25 to 40 degree C and settable temperature can be from 32 to 38°C. 12.It should have separate bassinet trolley, bed should be tiltable and have provision for x-ray cassette holder, Mattress foam density should be minimum 25 kg/cm3, transparent collapsible side walls easily detachable for cleaning. Mattress size should be minimum 20”X30”. 13.Should have a Feather Touch operation with large digital display and comprehensive alarms. Control Panel should be liquid proof and allow easy and hygienic disinfection. 14.Manual Mode can adjust Heater Output 10 -100 %, with 10% increment, an auditory and visual alarm shall be given at least every 15 min. 15.In manual mode, heater cut off / switch off, if the maximum irradiance at any point of the mattress area exceeds a total irradiance level of 10 mW/ cm2 (between 10 to 30 minutes). 16.Bed should be about 80 - 100 cms from the Floor and 80-90cms from the heat source. 17.Should have lockable castor wheels. 18.Green indicator light shall be provided to indicate that warmer is ready for normal use. 19.Markings on the bassinet and X-Ray cassette holder is mandatory to enable proper positioning of the baby while doing the X-Ray. At present we do not have this feature, but can be incorporated) 20.The size of the drop-down sides should be such that it is 5” above the mattress

	surface and should be at least 6mm thick; clear and transparent. 21.If there is more than 60% heater output for 10 minutes it should cut off with alarm. 22.For the purpose of cable management there should be at least two number of tubing ports (edges covered by silicon rings) on the side walls. The height of the side walls should be minimum 110mm over the mattress. 23.X-Ray cassette tray should be at least 750X350mm and should adopt up to 20mm thick X-Ray cassette. 24.The bay bed should be crevice free for ease of cleaning, infection control. 25.The mattress used should be of biocompatible material. 26.Skin temperature probe should be small in size not more than 10mm diameter and 3-4mm thick to fix the probe firmly on the infant. Baby contact material should be biocompatible as per ISO 10993 standard requirement. It should be insulated on one side and have well conducting non-rusting, non-reacting metallic surface on the other side. Probe wire should be pliable, thin and soft. The attachment site of the probe with the wire should also be pliable and non-stiff.
Dimensions (metric)	Specifications up to: 2000 mm (Height) X 900mm (Width) X 1100 mm (Length).
Power consumption	Maximum 600 Watt
Certificates	Should be FDA / CE or or equivalent approved product ICMED or equivalent approval
Warranty	1 Year

Needle Cutter	
Technical Characteristics	1.A device which renders a plastic syringe of any type safe by removing, cutting or destroying the needle, needle hub, or syringe nozzle and which encloses the remains of the needle in a needle container 2.Material- Steel with copper binding 3.Operating Type- Automatic 4.Power Source- Power supply 220v + 10% 50Hz AC
Warranty	1 Year

Oxygen Concentrator	
Technical Characteristics	1.Flow rate: 0~5 LPM, purity > 93%. 2.O2 delivery pressure: 0.03 to 0.07 Mpa (4.35 - 10.15 PSI). 3.Atomising pellet (ml/min.) > 0.5, uninterrupted flow of oxygen. 4.Oxygen monitoring system (optional). 5.Low pressure alarm, high pressure alarm and power failure alarm. 6.Unit capable for supplying oxygen to two outlets simultaneously using two independent flow meters. 7.Dimensions (metric) : Max spec: 640 mm (H) x 410 mm (W) x 410 mm (D) 8.Weight (lbs, kg)- Max 30 kg 9.Noise (in dBA) - <50 db 10.Heat dissipation - Heat desipated using an internal exhaust, so that a maximum of 36.5 degree C is maintained. 1.Mobility, portability – Yes
Power consumption	Below 400W
Certificates	CE or FDA approved and company should be ISO 13485 certified; and shall meet IEC 60601-1, IEC 60601-1-2 standard requirements; and compile with ISO 15001-2010. ICMED or equivqlent approval
Warranty	3 Years

Suction Apparatus	
Technical Characteristics	1. 0-700 mm Hg ± 10 regulable, flutter free vacuum control knob, 2. 25ltrs/min, tight fitting jar cap, vacuum capacity; 18 litres/min, maximum depression: -75kPa (-563mmHg). 3. Wide mouthed 2 x 2 Ltrs. (Polycarbonate) with self-sealing bungs and mechanical over flow safety device. 4. Should have a noiseless Operation 5. Should provide filter to absorb moisture and water particles entering into the rotor. 6. Should be well-designed, cabinet made of Stainless Steel 304 Grade 7. Max: 43 x 30 x 68 cms
Power consumption	200 Watt or Below

Certificates	Should be FDA / CE approved product ICMED or equivalent approval
Warranty	1 Year

Nebulizer	
Technical Characteristics	1.Noise: <60dBA 2. A220 V AC + 10%, 50Hz power supply; 5A plug 3. Medication Capacity: 6 ml 4. Operating Air Flow Rate: 8 to 10 L/min 5. Average Nebulization Rate: 0.4 ml/min 6. Particle Size: 0.5 to 6 micro m 7. Mmad: 2.44 micro m
Certificates	FDA (US)/CE (EU) and BIS/ISO 13485:2003; ISO 27427-2013; IEC-60601-1.
Warranty	5 Year

Digital Microscope	
Technical Characteristics	1.Body-Single mould sturdy stand, inclined Binocular body 30 °, 360º rotatable head. 2.Eyepieces-Highest quality 10 X/20mm wide angle anti fungus field eyepiece. one with pointer. Diopter adjustment must be present on both eye pieces. 3.Objectives- Parfocal, antifungus coated 4x, 10x, 40x and 100x (oil immersion) with semi planner achromatic correction. Objective should be well centred even if their position on turret is changed. 4.Optical system-Infinity corrected. 5.Stage - Double plate rack less horizontal mechanical stage preferably 100 x 140 mm with fine vernier graduations designed with convenient coaxial adjustment for slide manipulation preferably through 30 x 70 mm double slide holder. 6.Sub stage-Abbe condenser focusable, continuously variable iris diaphragm 7.Illuminator- Built-in LED light source with white light with intensity control and LED life of more than 10, 000 Hrs. 8.Finish-A durable textured acid resistant finish. 9.Battery backup : minimum 1 Hour. 10.Nose piece: Backward tilted revolving nose piece suitable to accommodate four objectives with click stop and rubber grip. 11.Focussing: Coaxial coarse and fine focussing knob, capable of smooth, fine focussing movement sensitivity; minimum: 300 micron; focussing stop for slide safety. 12.Accessories (mandatory, standard, optional)- Should provide with wooden storage box, dust cover, immersion oil.
Certificates	Should be FDA/CE/BIS approved product. ISO 13485 certification or Equivalent Electrical safety IEC 60601- General requirements(or equivalent BIS Standard) Certified to be compliant with IEC 61010-1, IEC 61010-2-40 for safety
Warranty	1 Year

Centrifuge	
Technical Characteristics	1.Stainless steel chamber 2.Power Consumption: 90W 3.Capacity (ml) : 6x15 4.Number of tubes: 6 5.Max RPM: 3500 6.Max RCF: 1600 g 7.Maintenance-free brushless drive motor with exact speed pre selection and display 8.Table top version 9.Power Supply Power input to be 220-240VAC, 50Hz as appropriate fitted with Indian plug
Certificates	Should be compatible with ICMED 13485 or ISO 13485 or other equivalent standards.
Warranty	1 year

Refrigerator	
Technical Characteristics	1.Minimum 200 L 2.Direct-Cool 3. 5 Star rated 4. Smart inverter compressor
Warranty	1 year on product, 10 years on compressor

Water Purifier	
Technical Characteristics	1.Electrical Purifier 2.Purification Function: RO + TDS + UF + UV 3.Water Type: Hard/Soft 4.Source of Water: Bore Well | Municipal Water | Tap Water upto 2000ppm 5.Installation: Wall Mount 6.Minimum 8 Litres Storage Tank Duty cycle of minimum 100L /Day 7.Filter Type: Carbon Block Filter | UF and Post Carbon Filter

	8.Power Consumption : 60 W - 100 - 250V AC,50-60 Hz 9.Body Material : ABS Food Grade Plastic
Warranty	1 year

7. Maintenance

· The bidder should provide 5 years comprehensive corrective maintenance of the Solar Photovoltaic inverter based system set, which shall include corrective maintenance during guarantee period. The bidder shall rectify defects developed in the system within Warranty period promptly.

· The maintenance shall include replacement of any component irrespective of whether the defect was a manufacturing defect or due to wear and tear or regular course of usage

· An Manual/technical document, in English a, should be provided for all the equipment individually.

· It should also have clear instructions about, DO's and DON'Ts and on regular maintenance related information

· Centralised telephone/mobile numbers should be provided along with a system to contact in case of failure or complaint, if Any.

8. Technical Bid

The bidder should provide the following details in the technical bid.

a. General Particular of Bidder

1	Name of Bidder	
2	Postal Address	
3	Mobile no.	
4	Telephone, Telex, Fax No	
5	E-mail	
6	Web site	
7	Name, designation, Mobile Phone No. email of the representative of the Bidder to whom all references shall be made	
9	Name and address of the Indian/foreign Collaboration if any	
10	Have anything/extra other than price of items (as mentioned in price Schedule) been written in the price schedule.	
12	Have the Bidder ever been debarred By any Govt. Deptt./ Undertaking to be given.	
13	Monthly supply capacity (attach supporting document)	

14	Details of offer (please mention number of pages and number of Drawings/layout)	
15	Reference of any other information attached by the tenderer (please Mention no. of pages & no. of drawings / system layout)	

b. Copy of Certificate of Registration to be included in Technical bid.

c. The bidder should have Test Certificates (at least 1 certificate) for the Solar components as per MNRE/BIS specifications from recognized testing centres. The bidder has to submit these test reports along with Bid.

d. The Medical Equipments must be of FDA / CE certified

e. Valid ISO certificates of the original Equipment Manufacturer for the Medical Equipments.

f. The certified copy of balance sheet for any 3 consecutive years (2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant along with CA certificate for turnover & Net worth to be included in Technical bid.

g. The bidder should have an experience of supplying materials to Government / Private partners during the last three years from the date of submission of TENDER. Related satisfactory letters from previous customers to be attached as part of the tender.

h. The bidder shall submit the design/system layout of their system offered in the bid as per the technical specifications given in the tender.

i. The bidders have to submit the details of the service centres/dealers located in North Karnataka along with the Bid.

9. Financial Bid

a. The equipment has to be supplied to 36 health care centers as per the list in the districts of North Karnataka.

b. The bidder may quote for only Solar System and/or only Medical Equipment. But in each category the bidder must quote for all equipments/components for all the health centers.

c. The bidders need to quote unit price (in Rs) including all taxes, warranty, insurance, maintenance, transport etc. and should also provide the cost breakup as per the given format in the tender document.

d. The financial bids will be evaluated on 'Total Price inclusive of all expenses & taxes'. The L1 bidder/s would be selected for the project

e. The financial bid of only techno-commercially qualified bidders will be considered and evaluated. The financial bids of bidders who will not meet the minimum qualifying criteria will be rejected.

10. Payment terms and conditions

The payments shall be made as per the following terms and conditions:

a. 25% of the total cost will be paid to the vendor through Demand Draft/Net-banking and bank transfer in advance along with the Purchase Order.
b. 35% of the total cost will be paid directly to the vendor after the delivery of material at site as per the technical specification and terms and conditions specified in the tender.
c. 30% of the total cost will be paid to the Vendor after installation and successful commissioning of the system.
d. Last 10% of the total cost will be released to the Vendor after 12 months of satisfactory operations.

11. Procedure for Bid Finalization

a. First the Technical bids shall be evaluated
b. The bidders who will qualify in techno-commercial evaluation will be considered for the financial evaluation.
c. The bidders shall be considered techno-commercially qualified if they meet the given “Minimum Eligibility Criteria” as defined in section 3 of the tender document.

d. SELCO reserves the right at the time of awarding the contract to increase or decrease the quantity of goods and locations of supply without any change in price or other terms and conditions.

e. SELCO reserves the right to accept any bid and to reject any or all bids.

f. List of successful Bidder(s) and shall be intimated in writing to the bidder.

g. Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process.

h. Subcontracting is not allowed for the project.

Annexure 1

S.No.	Criteria	YES/NO
1.	The bidder should be a Registered Company in India -Enclosed copy of registration.	
2.	The bidder should have: a minimum 3-year average turnover of Rs. 1 Crore. - Enclosed copy of balance sheet for any 3 consecutive years (2017-18, 2018-19, 2019-20) duly audited /certified by Chartered Accountant.	
3.	Bidders should have Test Certificates as per MNRE/BIS or equivalent from recognised test centers for the Solar System/components Bidders should have relevant BIS/ISO/ICMED or equivalent certificates for the Medical equipments. - Enclosed test report/certificate.	
5.	Bidder has not been blacklisted by any Govt. Agency [for not honouring the order after bidding OR not supplying in time OR not providing after sales service: - Enclosed self-certification.	
6.	The bidder/manufacturer has service centres in Karnataka: - Enclosed service centre details.	

Annexure 2

SL No	Type of System	Quantity	Cost of Material (Rs)	Cost of Warranty (Rs)	Cost of Insurance (Rs)	Cost of Transportation (Rs)	GST (Rs)	Total Cost (Rs)
1	3.6 KWp	4						
2	5.4 KWp	29						
3	7.2 KWp	3						
Total Price (Rs)								
Total Price in words (Rs)								

Appliance Name	Quantity	Cost of Material (Rs)	Cost of Warranty (Rs)	Cost of Insurance (Rs)	Cost of Transportation (Rs)	GST (Rs)	Total Cost (Rs)
LED Tube Light	350						
Total Price in words (Rs)							

Annexure 3

SL No	Appliance Name	Quantity	Material Cost (Rs)	Cost of Warranty (Rs)	Cost of Insurance (Rs)	Cost of Transportation (Rs)	GST (Rs)	Total Cost (Rs)
1	Examination Treatment Light for labour room	26						
2	Baby warmer	29						
3	Needle Cutter	37						
4	Oxygen Concentrator	34						
5	Suction Apparatus	26						
6	Nebuliser	34						
7	Digital Microscope	36						
8	Centrifuge	34						
9	Refrigerator	24						
10	Water Purifier	26						
Total Price (Rs)								
Total Price in words (Rs)								