

**HLL LIFECARE LIMITED**  
**As Consultant to**  
**MINISTRY OF HEALTH & FAMILY WELFARE**  
**GOVERNMENT OF INDIA, NEW DELHI**  
**PRADHAN MANTRI SWASTHYA SURAKSHA YOJNA- Ph II**

**TENDER**  
**FOR**  
**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF SOLAR**  
**HOT WATER GENERATING SYSTEM AT SUPER SPECIALITY HOSPITAL**  
**AT GOVT. RAJAJI MEDICAL COLLEGE, MADURAI UNDER PMSSY PH II**

**PART-III**  
**PRICE BID**

**Tender No. HLL/IDS/18/75 Dated: - 21.12.2018**



**HLL Lifecare Limited**  
(A Government of India Enterprise)

**एचएलएल लाइफ़केयर लिमिटेड**  
(भारत सरकार का उद्यम)

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## **1 COMMERCIAL CONDITIONS**

1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

1.0.2 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for **SITC of Solar hot water generating system at Super Speciality hospital at Govt. Rajaji Medical College, Madurai under PMSSY Ph II.**

1.0.3 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/ equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.

1.0.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

### **1.1 UNIT RATES**

1.11 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

### **1.2 BRIEF DESCRIPTION OF PRICING**

1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.

1.2.2 The price quoted shall be the final amount for this finished work.

### **1.3 INCOME TAX**

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

### **1.4 SALES TAX AND EXCISE DUTY**

The tenderer shall include all applicable taxes and duties in their quoted rates. The bid which mention that applicable taxes and duties extra shall be summarily rejected.

### **1.6. SUBMISSION OF BILL**

1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

### **1.7. EXTRA ITEMS**

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

## **1.8. OVER TIME WORK**

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.

1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.

1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners and the consultants.

1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

## **2 SPECIAL CONDITIONS**

### **2.1 EXECUTION WORK**

2.1.1. The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Engineer-in-charge from time is to be carried out and completed in all parts to the entire satisfaction of the Employer. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contact.

### **2.2. CERTIFICATE OF COMPLETION**

2.2.1 The contractor shall intimate to the Engineer-in-charge in writing as and when the works are completed and put into beneficial use in order to enable the consultants to check certify to the owners to take over the work.

2.2.2 The work shall not be considered as completed and put into beneficial use until the EIC have certified in writing that the same has been completed and put into beneficial use.

2.2.3 The defects liability period of one year shall commence from date of such completion or any specific date mentioned therein.

## **BILL OF QUANTITIES**

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
	<b>HOT WATER GENERATOR SYSTEM</b>				
1	Supply, installation, testing and commissioning of hot water generator (electrically operated) including wiring up to panel, earthing, necessary accessories and safeties and capable of delivering hot water at 55 - 60 Deg.C.. complete				
	<b>Hot Water Generator capacity : 5000 LPD (5 Tons)</b> Hot water generator(Air to water heat pump) 5HP 400L/Hour 60 deg. C with all accessories including circulation pump, wiring up to panel, earthing etc	Nos	1		
2	Supply, installation, testing and commissioning, of MS fabricated floor supported Vertical type <b>5000 litres</b> storage capacity Hot water Storage tank. The tank shall be suitable for a minimum working pressure of 5 kg/sq.cm. The tank shall be fabricated out of 6mm thick MS plate and dish end shall be 8 mm thick .The tank shall be insulated with 50 mm thick glass wool covered with chicken wire mesh including 26 gauge aluminium cladding or as per manufacturers specifications.				
	The inside portion of the tank shall be finished with two coats of spray galvanising of 100 microns. The tank shall include 450 mm dia manhole, inlet and outlet pipe connections, drain pipe and level indicators, 1 nos. Pressure gauges, 1Nos.temperature guage at inlet and outlet side, flow meter etc. including structural supports for mounting on concrete pedestal.	Nos	1		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
	<b>PUMPS AND ACCESSORIES</b>				
3	Supplying, installing, testing and commissioning of hot water return / circulation pumps. Pumps shall have bronze impeller and SS shaft with rotary shaft (mechanical) seal. Each pump shall be provided with suitable electric motor with DOL starter wiring up to panel, earthing etc. complete. Each pump shall be suitable for automatic for automatic / manual operation.				
	2 Nos. Hot water (60-65 deg.C) return pumps( <b>one working + one stand by</b> )				
	flow rate - 2.0 LPS				
	Head - 25	Set	2		
4	Supply and fixing of MS flanges with bolts, nuts, washers 3 mm thick compressed asbestos insulation gasket.				
a]	15 mm dia	Nos	28		
b]	20 mm dia	Nos	32		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
c]	25 mm dia	Nos	92		
d]	32 mm dia	Nos	12		
e]	40 mm dia	Nos	28		
f]	50 mm dia	Nos	42		
g)	65 mm dia	Nos	20		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
5	Supply and installation of Cast Iron Flanged 'Y' stainers				
a]	25 mm dia	Nos	4		
b]	40 mm dia	Nos	4		
c]	50 mm dia	Nos	4		
d)	65 mm dia	Nos	4		
6	Providing and fixing of GM 20 mm dia automatic air release valve( the air release valve shall be suitable for hot water).	Set	4		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
	<b>SOLAR WATER HEATERS</b>				
7	Solar Panels				
	Supply, installing, testing, commissioning and handing over of Solar flat plate collectors as per ISI specifications or reputed make more and above ISI specifications, complete with inlet and outlet water headers ,drain connections, etc...				
	Panel size : 2000 * 1000 mm	Nos	30		
8	<b>Hot water piping for solar panels</b>				
	Supply, installation, testing, commissioning of SS/ Copper pipes with flanged ends for circulating pumps				
a]	50mm dia	Nos	10		
b]	40mm dia	Nos	10		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
	<b>Internal Connecting Piping</b>				
9	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for Hot and Cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in caharge. Make:Supreme,Finolex,Prince etc.,				
a)	25mm nominal outer dia.Pipes	RMT	140.00		
b)	32mm nominal outer dia.Pipes	RMT	40.00		
c)	40mm nominal outer dia.Pipes	RMT	30.00		
d)	50mm nominal outer dia.Pipes	RMT	70.00		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
e)	62.5mm nominal inner dia.Pipes	RMT	95.00		
10	Supply, installation of insulation for exposed hot water pipe as per the Technical Specifications				
a)	25mm nominal outer dia.Pipes	RMT	80.00		
b)	32mm nominal outer dia.Pipes	RMT	20.00		
c)	40mm nominal outer dia.Pipes	RMT	20.00		
d)	50mm nominal outer dia.Pipes	RMT	40.00		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
e)	62.5mm nominal inner dia.Pipes	RMT	80.00		
11	Providing and fixing Gun metal gate valve with C.I. wheel of approved quality (screwed end). Make: Lehry,Supreme,Finolex,Prince etc.,				
a)	25mm nominal outer dia.Pipes	Nos	14.00		
b)	32mm nominal outer dia.Pipes	Nos	5.00		
c)	40mm nominal outer dia.Pipes	Nos	3.00		
d)	50mm nominal outer dia.Pipes	Nos	10.00		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
e)	62.5mm nominal inner dia.Pipes	Nos	8.00		
12	Gunmetal non-return valve-vertical (screwed end)				
a)	50mm nominal outer dia.Pipes	Nos	5.00		
b)	62.5mm nominal inner dia.Pipes	Nos	5.00		
13	Circulation pump between Solar Panels and Tank (1/2 HP Single phase Kirlosakar make)including wiring up to panel, earthing etc	Nos	4.00		

SL. NO	DESCRIPTION	UNIT	QTY	RATE (Rs. in words & in figures)	Amount (Rs.)
14	Suitable Control Panel with incomer, DOL starter, with all Accessories required for the fully functioning of the above system	Nos	1.00		
15	Supply & laying of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable confirming to IS 7098 (part 1) ammended upto date.				
	4 x 16 sqmm	RMT	75		
16	Supplying and making end termination with brass compression gland and aluminium lugs including gland earthing for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	4 x 16 sqmm	Nos	2		
17	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	RMT	150.00		
	<b>Total Amount</b>				