Request For Budgetary Estimate of DC High end equipment and associated work at Hospital in Delhi

HSCC/Delhi /Phase 3/2025 Date-20/11/2025

Supply, installation, testing and commissioning of DC high end equipment and associated work at Hospital campus:

Technical Specifications and Bill of Quantity proposed for above are enclosed herewith. It is requested to submit the Budgetary Quotation of the same inclusive of all taxes & duties.

The quotation should be on Company Letter Head with sign and stamp as per the BOQ format enclosed and should be submitted in Hard Copy only in a sealed envelope within 7 days of issue of this Notice at the following address:

General Manager (IT)
IT Department
HSCC (India) Ltd.,
E-6(A), Sector-1,
Noida (U.P.) - 201301.

General Manager (IT),
HSCC (India) Ltd.

Note-This is not tender & no work shall be awarded as per this advertisement, this is just a request for budgetary quotation for estimation purpose only.

1 KVA True Online UPS with In-Built Battery backup	
Parameter	**Required Specifications**
Configuration	1 KVA On-Line UPS Should have IGBT BOTH INVERTER & RECTIFIER STAGE , inbuilt cold start function
Technology	HIGH FREQUENCY DOUBLE CONVERSION DESIGN , EMI /RFI NOISE FILTER
Capacity & Output Power Factor	**1 KVA & 0.80**
Operating Voltage Range	110-300 VAC (Based on load at 50%), 160-300 VAC (Based on load at 100%)
Operating Frequency Range (HZ)	46 - 54 ±0.5Hz OR 56 -65 ±0.5Hz AUTO SENSING
Output Voltage	220/230/240 ±1%
Output Frequency	50 Hz/ 60 Hz ±0.2% ON BATTERY MODE
Overload Capacity	>110% , 30 SECNDS TURN TO BYPASS MODE ,>150% 300 MILI SECNDS TURN TO BYPASS MODE
Crest Factor	3:1
Noise (Db)	**<45 DB , (1 METER)**
Efficiency	> 91%
Harmonic Distortion	<2 % THD (Linear Load); <5 % THD (Non-linear Load)
TEMPERATURE & RH	Temp: 0–45 Deg C
	Relative Humidity: 0 to 95% non-condensing
Audible Alarms	Battery low voltage , abnormal power supply , ups failure , over load
LCD INDICATION	LCD DISPLAY INDICATING (input & out voltage / input & out frequency , load watt/ va percent , inverter temperature) OPERATION MODE SUCH AS : ONLINE , ON BATTERY , ON BYPASS
Battery Back-up & Other Details	The system must be capable of providing requisite battery back-up time of 15 minutes In-Built Battery back-UP using Sealed Maintenance Free Batteries.(Minimum VAH: 252)
Warranty	5 years both on UPS & Batteries

Note- Any items missing for completeness of IT infrastructure should be taken as per the requirement of the site.

Note-The specifications mentioned for each component are minimum and the SI shall provide the products with higher specifications if required for the completeness of the system.

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S.No.	Parameter / Feature	Detailed Specifications
2	Rating	2 X 5KVA
3	Technology	True Online, Double Conversion with PWM Technology & IGBT based Inverter
4	System Configuration	2x5 KVA Online UPS in parallel redundant equal load sharing Mode. One UPS should be capable of taking 100% load instantaneously in case other UPS fails. The parallel redundancy equal load sharing feature should be an inbuilt feature of the UPS, and should not be provided through some external parallel redundancy kit.
5	Nominal Input Voltage	230V single phase
6	Input Voltage Range	160V AC to 275V AC
7	Input Frequency	50 Hz +/- 3 Hz
8	Input Power Factor	> 0.9
9	Nominal Output Voltage	230 Vac +/- 2%
10	Output Frequency	50 Hz +/- 1 Hz
11	Output power factor	0.8 or higher
12	Overall efficiency	> 85%
13	Overload capability	110% for 10 minutes
14	THD at 100% non-linear load	<5.5%

15	Battery Type	Sealed, maintenance-free
16	Battery Make	Panasonic / Rocket / CSB / Global Yuasa / Amaraja (Quanta) / EXIDE/ UPS OEM Make
17	Desired Backup	Min. 60 minutes backup on full load
18	Cold Start	Cold start on 100% load
19	Communication Port	RS232 or USB port & necessary communication cables to be provided
20	SNMP Card	Should come with an SNMP Card for connecting UPS to Ethernet LAN to monitor and manage the UPS with a standard Web browser, while simultaneously providing shutdown & restart for multiple windows, Linux & Unix computer systems over LAN
21	Power Management Software	The UPS must have Power Management Software to view & monitor UPS status, backup time & shutdown
22	Battery Refresh	The Vendor shall replace all the batteries after every 2.5 years, also replace batteries on failure.
23	Compliance	Latest Version of IEC/EN 62040 or Equivalent
24	Warranty	5 yrs OEM onsite warranty
25	Indicators	LCD/LED Display (on mains, on battery, replace battery, overload, etc), Input & output voltage, frequency, battery voltage

Item and Parameter	**Detailed Specification**
Integrated Infrastructure Solution	It is required to deploy the Micro Data Centre Solution for Critical IT Equipment.
Scale and Density of Integrated Data Centre	The required solution comprises of Single Rack of 45U Height (Min) each having effective total mounting space of minimum 45U per Rack available for User IT Equipment.
Cooling System	Solution provided should have integrated Rack Bottom Mounted (4U) - Self-contained Split Type Cooling Unit designed for cooling the racks with 24X7 operations in all respect as per ISHRAE/ASHRAE standard and also integrated with a remote monitoring system. Cooling unit of minimum 3.5 KW capacity for Single Rack Micro DC.
	It is required that Cooling Unit should not consume rack usable space more then 4U.
	EC Fans should be used for overall efficiency. These fans should be site replaceable as may needed for servicing. Variable speed is effectively implemented in line with the industry-standard best practices.
Racks	Individual modular racks should be of 45U (Height-Min) x 800 mm (width - Min) x 1200 mm (Depth - Min) Overall Depth of the setup should not be more than 1400mm All Steel Construction Rack with an Integral Base Frame should have the following features: - UDL Carrying Capacity of 1200 KG Minimum - Provision for Grouting Racks at the site as needed. - Efficient Space Management inside the rack ensuring maximum allowable space available for use.
	Rack colour should be customised as per customer demand / need.
	Required entity branding shall be done as per customer demand / need.

Rack Accessories	Following Rack Accessories should be included: - Blank Panels for closing the opening/gaps in the front mounting rails - Rack internal Cable Management for Vertical and Horizontal Cables - Front Panel Mounting Hardware - Brush Panel / Glands / Seals for all Cable Entry Points in the cabinet
	GUI Software capable of supporting:
	• Real Time Graphical Representation of the ultrasonic frequency band spectrum depicting the frequency oscillations within the current band.
	• Facility to generate a consolidated pdf summary report of all controllers or detailed pdf report of individual controller in real time or in a pre defined schedule. • Parameter Configuration of the controller.
	• PCB view of each controller.
	Proposed Biometric System should have built in Smart Card Reader.
	Digital swing handle lock shall have integrated LED indicator
Rack Integrated Fire Detection and Suppression System	Fire detection and suppression system, modular type fire suppression system (FK-5-1-12) to cover entire racks. Dedicated nozzles for the suppressant should be provided in each logical compartment of the entire system. The design should be as per NFPA standards guidelines.
	Fire Detection and Suppressant System should not consume any rack space
	Compatible with Monitoring System: Should be Easily integrated into BMS or DCIM software with protocols like SNMP, MODBUS over TCP/IP, and JSON-RPI
	Small Form Factor: Should Support existing cabinet infrastructure or mount outside a rack, in an equipment closet, or other areas to better use the available space with rackmount or vertical mount options.
Metered Distribution Board	Following DB's shall be provided to ensure appropriate Electrical Power Distribution over 4 Racks. - Main Power DB. - Raw Power DB. - UPS incoming & outgoing DB
	Each DB shall have appropriate size breaker & cable as per industry standard.
	All power cables shall be of FRLS rating for appropriate protection.
	Each DB shall have Energy Meter with Modbus RS485 connectivity
Services	On-Site Installation, Testing & Commissioning for all above mentioned component.
	Handover of Product documents, Operational Manual and As-built drawing.
	5 Year warranty on handover
	On-site Training from Certified CDCP DC professional.
	Material Freight + Loading + Unloading

S.No.	**CABLING FOR DATA SYSTEM**
	Category 6A UTP LSZH Cable, 4 Pair
1	Category 6A Unshielded Twisted Pair 4 pair cable shall be compliant with TIA/EIA-568-C.2 channel perfomance
2	Category 6A UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP.
3	23 AWG solid copper conductor with a frequency of 500 MHz
4	All Category 6A cables shall meet or exceed the following characteristics:

5	**Mechanical Characteristics**
6	Construction
7	4 twisted pairs separated by internal X shaped, 4 channel, full separator.
8	23 AWG Conductor dia
9	Insulation = High Density Polyethylene
10	Conductor = Bare Copper
11	Jacket=LSZH
12	Jacket colour=Blue
13	Cable Diameter =7.6mm ± 0.3mm
14	Sequential meter marking =YES
15	Temperature Rating =(- 20 to +60 C)
16	Filler Required= Yes
17	Packing =305 Mtrs.
18	Low Frequency Electrical Paramere
S.No.	**Cat6A Patch Panel**
	Min. Required Specification
1	Patch Panel made of SPCC in 24 port configurations.
2	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit.
3	Have port identification numbers on the front of the panel.
4	Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel
5	IDC: Suitable for 22-24 AWG stranded and solid wire compatible with both 110 & Krone punch down tools
6	Improved cable management with optional cable management bar
7	The Cat-6A transmission performance is in compliance with the ANSI/TIA/EIA 568C.2 standard and ISO 11801
8	Mechanical Characteristics: Plastic Housing: PBT+Glass Fiber, UL94V-0 rated
9	Jack Connector: Operating Life: Minimum 750 insertion cycles
10	Material: Phosher bronze with nickel plated
11	Contact Plating: 50µ" Gold plated on plug contact area
Sr.No.	**Information Outlet Cat6A**
1	Single Port I/O , Face Plate with shutter and back box
2	Write on labels in transparent plastic window – supplied with plate
3	Should be able to support variety of jacks – UTP, STP etc.
4	Category 6A, TIA568 C.2
5	All information outlets for 22-26 AWG copper cable shall:
6	Use insulation displacement connectors (IDC)
7	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits.
8	Insertion force: 20N max
9	Jack Specification: Plastic Housing: Polycarbonate, UL94V-2 rated or equivalent
10	Operating Life: Minimum 750 insertion cycles
11	Contact Material: Phosphor Bronze with nickel plated

12	Contact Plating: 50 µinches gold on plug contact area	
S.No.	**Patch Cord Cat 6A**	
	Characteristics:	
1	Cat6A patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends	
2	Cat6A patch cord should meet the TIA/EIA 568C.2 and ISO/IEC 11801 standard	
3	**Specification:**	
4	Length	1/2/3 mtr
5	Conductor:	24 AWG, Multi-strands
6	Conductor Metal	Bare Copper
7	Insulation Material	HDPE
8	Material	LSZH
9	Color Code	Yellow
10	Heat Resistance	75°C
S.No.	**6 Core Fiber Optic Cable, Armoured, SM LSZH**	
1	The 6 core armored fiber cable type is a Matched Cladding Single Mode	
2	Fiber dual coated with acrylate coating with LSZH sheath,	
3	The fiber is optimized for operation at 1310 nm and at 1550 nm.	
4	Should fulfill the requirements of:	
5	· IEC 60793-1/60794-1-2	
6	· ISO 11801	
7	· ITU-T REC G.652.D	
8	Nominal mode field diameter: 9.2 µm	
9	Mode field diameter tolerance: ±4%	
10	Cladding diameter: 125 µm	
11	Cladding diameter tolerance : ±1 µm	
12	Mode field concentricity error : < 1 µm	
13	Cladding non-circularity: < 2 %	
14	Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.: CORE	
S.No	**6/12/24 Port LIU loaded with LC Adapter and Pigtail.**	
1	6/12/24 port Loaded LIU accommodate LC Single mode adapters.	
2	Cold steel base material with powder coating. Aluminum top and front cover for light mounting	
3	can manage both splices and terminations	
4	should have fiber magic sticker provision inside for 900um tight buffered fiber storing	
5	Accessory kit consists of cable ties, mounting ear screw earthing.	
6	Front-Mounted Cable Saddles for jumper management	
7	Removable Top & Front cover for better access to interior of LIU	
8	Rubber grommet allow for pre-terminated fiber trunk installation, protects cable and minimizes dust build-up	
S.No	**LC-LC Fiber LSZH Patch Cord, 3m, SM**	

1	Optical fiber patch leads shall comprise of Simgle mode 9/125µm fiber with LC-LC fiber connectors Duplex Type terminated at each end. The optical fiber patch leads shall comply with the following specifications:
2	Fiber LSZH patch cords should be Zirconia ceramic ferrule Connector factory crimped with Pre-radiuses and pre-polished ferrule
3	Fiber patch cords should have <0.3 db. Insertion Loss
4	Fiber patch cords should have >/= 50dB for UPC Return Loss
5	Fiber patch cords should have be for 200 mating cycle for life Durability
6	Fiber patch cords should have (- 20 deg. C to + 60 deg. C) operative temperature
7	Fiber patch cords should have 3 Meter length
8	All the fibre and copper cable and component should be from same OEM
	Fiber Cable Outdoor MM OM4
1	Should be ISO/IEC 11801:2002; Uni-tube
2	Should Have 0.155 mm corrugated steel Armor
3	Type: Single Mode MM OM4
4	Cable Jacket material: 1.5 mm LSZH sheath
5	Minimum Cores 6
	Patch Cord LC – LC OM4 3 meter
1	Patch Cord Should be Multi Mode OM4
2	Type of Connector LC-LC
3	Jacket Material: LSZH
4	Should have option for Visual coding, mechanical coding and lock protection for security purpose.

NOTE-The specifications mentioned for each component are minimum and the SI shall provide the products with higher specifications if required for the completeness of the system.

Existing infra details-

Switch	
Distribution/Core	3
24P Port (Poe)	64
24 Port (Non-Poe)	20
AP	48
Controller	1

Note-In case any survey required at site should be done before work execution.

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Sr. No.	Item Description	Unit	Qty.	Rate	Amount
1	Trenchless for OFC Laying as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Mtrs.	800		
2	Supply, installation, testing and Commissioning of 19 " Rack 12 U Wall Mount Rack with all standard accessories that include Cable Manager, Power Bar with socket setc.as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos	40		
3	Supply, installation, testing and commissioning of 12 SM LIU as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos	31		
4	Supply, installation, testing and commissioning of SM Patchchord as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos.	78		
5	Testing of OLTS report as per the for all OFC connections mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Lumpsum	1		
6	Supply, installation, testing and commissioning of 1 KVA UPS System for all IT Racks as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos.	25		
7	Supply, installation, testing and commissioning of Network Rack with smart intelligent as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos	1		
8	Supply, installation, testing and Commissioning of AAA for authentication as per the requirement & complete in all respect and as directed to the satisfaction of engineer.				
9	Supply, installation, testing and commissioning of Upgradation/expansion of twenty data points as per the requirement with I/o, faceplate, gang box, patchchords and all required equipment to make it functional as per the requirement & complete in all respect and as directed to the satisfaction of engineer	Lot	4		
10	Supply, Laying, Testing, Commissioning of Cat 6A cable as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Mtrs.	8000		

11	Testing of Pentascanning for all the data points as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Lumpsum	1		
12	Supply, installation, testing and commissioning of 24 SM LIU as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos	12		
13	Reconfiguration of existing network as per the requirement for upgradation of the Network	Lot	1		
14	Supply, installation, testing and commissioning of SM Pigtail with detection of end point as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos.	500		
15	Supply, Laying, testing and commissioning of OS2 OFC as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos.	6200		
16	Supply, installation, testing and Commissioning of 19 " Rack 27 U Floor/Wall Mount Rack with all standard accessories with all standard accessories with mounted DC equipments to make all connections that include Cable Manager, Power Bar with socket setc.as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos.	2		
17	AMC of Network equipments at existing blocks for 3 years with upgradation of security appliance as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	No.	1		
18	Supply, installation, testing and Commissioning of 19" Rack 42U Wall Mount Rack with all standard accessories with mounted DC equipments to make all connections functional as per the requirement that include Cable Manager, Power Bar with sockets etc. as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	Nos	2		
	Total				