



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

TIRUCHIRAPPALLI – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

ENQUIRY

NOTICE INVITING TENDER

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Email : ykaruna@bhel.in

: vijayak@bhel.in

Website : www.bhel.com

TWO PART BID

Tender to be submitted in two Parts

Enquiry
Number:

2631900039

Enquiry Date:

01.10.2019

Due date for submission of
quotation:

25.10.2019

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity
10	Wireless Access Point as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com and https://eprocure.gov.in)	10 Nos

Important points to be taken care during submission of offer

1. Delivery terms shall be FOR BHEL Stores, Trichy.
2. Compliance Form No: MM/CE/IND/12 to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
3. Delivery period required is 2 months from the date of Purchase Order.
4. Demonstration and commissioning shall be done at BHEL Trichy by the supplier.
5. Time period required for Demonstration and Commissioning shall be 1 week from the date of intimation by BHEL to Supplier.
6. Demonstration & Commissioning shall be done free of cost.
7. EMD not applicable.
8. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.

BHEL's General guidelines / instructions, compliance form and technical specification can be downloaded from BHEL web site <http://www.bhel.com> and <https://eprocure.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2631900039".

Note: this is not an E-tender, hence Vendors are requested to ensure that the offer is reaching physically at our office before 14:00 Hrs. on the date of tender opening.

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

V. Karunakaran
1/10/19

V. KARUNAKARAN
Dy. General Manager
Capital Equipment / MM
BHEL / Tiruchirappalli - 620 014

WIRELESS ACCESS POINT, Qty. 10 nos.**Part A****SECTION – 1: Qualifying Criteria**

The BIDDER has to compulsorily meet the Qualifying criteria indicated in SECTION 1 to get qualified otherwise the technical offer will not be considered.

S. No.	PARTICULARS	BIDDER's RESPONSE
1.1	Only those Bidders /OEMs should quote, who have supplied and commissioned Networking components at least 1 location in the past 2 years (as on the initial date of opening of Tender).	
1.2	Only those Bidders /OEMs should quote, who have SERVICE-AFTER-SALES office/ Service Centre in India.	
1.3	BHEL reserves the right to verify the information provided by the vendor. In case the information provided by the vendor is found to be false/ incorrect, the offer shall be rejected.	

SECTION 2: The BIDDER is requested to provide the following information:

S. No.	PARTICULARS	BIDDER's RESPONSE
2.1	Number of Networking components / wireless access points installed till date	
2.2	List of customers to whom Networking components / wireless access points were supplied in the last 2 years.	
2.3	Year of Launch of the Model quoted against this enquiry.	
2.4	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centres in South India.	

Part B - Technical Specification

S No	BHEL Specification	Bidder's offer (With technical details)
1	Wireless Access point specification	
1.1	Access point (AP) should be a single device and should have an in build Virtual controller.	
1.2	802.11ac - 5GHz 4x4 MIMO and 2.4GHz 2x2 MIMO radios, with a total of four integrated Omni-directional downtilt dual-band antennas.	
1.3	The AP shall work on Power over Ethernet (POE) standard 48 Vdc 802.3af/802.3at	
1.4	Unrestricted functionality with 802.3at POE	
1.5	It shall be possible to auto configure the additional AP once the virtual controller is configured, all AP should be centrally managed.	
1.6	Shall support wireless IDS, rogue detection and containment	
1.7	The virtual controller should support fallback once the active controller AP fails.	
1.8	Mount kit to attach the AP to a wall or ceiling.	
1.9	AP shall have an operating temperature of 0°C to 50°C and humidity of 5% to 95% non-condensing.	
1.10	Shall abide by all mandatory Indian regulations and standards.	
1.11	In case of failure of controller, the other wireless AP device should take over automatically to ensure high availability of controller	
1.12	Should have management dashboard via browser to operate, monitor, and troubleshoot your network.	
1.13	Should be possible to apply access rules based on Network and role of user.	
1.14	Should have built in DHCP service.	
1.15	Should have management dashboard via browser to operate, monitor, and troubleshoot your network	
1.16	The product should be manufactured from OEM who is in the leaders or challengers quadrant in Gartner's wired and wireless LAN Access infrastructure latest report.	
2	Wireless Radio Specifications	
2.1	AP type: Indoor, dual radio, 5GHz 802.11ac 4x4 MIMO and 2.4GHz 802.11n 2x2 MIMO	
2.2	Software-configurable dual radio supports 5GHz (Radio 0) and 2.4GHz (Radio 1)	
2.3	Support for up to 255 associated client devices per radio, and up to 16 BSSIDs per radio	
2.4	Shall support 802.11b: Direct-sequence spread-spectrum (DSSS) and 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)	

S No	BHEL Specification	Bidder's offer (With technical details)
2.5	Shall supported different modulations like 802.11b: BPSK, QPSK, CCK, 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	
2.6	Transmit power shall be Configurable in increments of 0.5 dBm	
2.7	Shall support the below data rates (Mbps): 802.11b: 1, 2, 5.5, 11 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 802.11n (2.4GHz): 6.5 to 300 (MCS0 to MCS15) 802.11n (5GHz): 6.5 to 600 (MCS0 to MCS31) 802.11ac: 6.5 to 1,733 (MCS0 to MCS9, NSS = 1 to 4 for VHT20/40/80, NSS = 1 to 2 for VHT160)	
2.8	802.11n high-throughput (HT) support: HT 20/40	
2.9	802.11ac very high throughput (VHT) support: VHT 20/40/80/160	
2.10	802.11n/ac packet aggregation: A-MPDU, A-MSDU	
3	WiFi Antennas specification	
3.1	Four integrated dual-band Omni-directional antennas for 4x4 MIMO with maximum antenna gain of 3.1dBi in 2.4GHz and 5.0dBi in 5GHz shall be available. Built-in antennas are to be optimized for horizontal ceiling mounted orientation of the AP.	
3.2	The maximum gain of the combined (summed) antenna patterns for all elements operating in the same band shall be 3.9dBi in 2.4GHz and 5.7dBi in 5GHz.	
4	Interfaces	
4.1	One 10/100/1000BASE-T Ethernet network interface (RJ-45)	
4.2	Auto-sensing link speed and MDI/MDX	
4.3	802.3az Energy Efficient Ethernet (EEE)	
4.4	USB 2.0 host interface (Type A connector)	
4.5	Visual indicators multi-colour LEDs for System and Radio status	
4.6	Factory reset button shall be available.	
4.7	Serial console interface and adapter cable if any should also be supplied.	
5	Operation & troubleshooting Manuals (3 sets) for installation, troubleshooting and service of machine shall be supplied along with the equipment	
5.1	Soft copy of the manual in CD – 1 no.	
6	Installation and performance prove out of the offered equipment at BHEL works shall be done by the supplier's Engineer.	
7	Training: The Supplier's Service Engineer shall give training in the Operation of the equipment to BHEL Staff, during commissioning.	

Wireless Access Point

S No	BHEL Specification	Bidder's offer (With technical details)
8	Warranty period: 3 years from the date of installation. All software updates / patches shall be supplied by the supplier during the warranty period.	