


Maharashtra State Electricity Transmission Co. Ltd
(CIN No.U40109MH2005SGC153646)

<p>From Office of the Chief Engineer EHV Project Cum O&M Zone, Pune Administrative Building, 3rd floor, Block No.402, Rasta Peth, Pune - 411 011 ☎ 020 26066106 (O) 020 26061132 E-Mail : cepune@mahatransco.in</p>	
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No. CE/EHV PC O&M/Zone/Pune/IT/160

Date: 24.01.2025

E-ENQUIRY (Through MSETCL web page)

Sub: E-Enquiry for ‘Supply & Installation of 4K 65 Inch Interactive display Panel for Zonal Office Pune with OPS & VC Device.’

Dear Sir/Madam,

Sealed and Super scribed quotations are invited for the ‘Supply & Installation of 4K 65 Inch Interactive display Panel for Zonal office Pune with OPS & VC Device’ as per ‘Scope of work’ & ‘Schedule-A’. You are requested to quote your lowest rate for above work.

The terms & conditions are as follows: -

1. The rate should be quoted on firm quotation basis. The validity period of the quotation should be a minimum of 120 days from the date of receipt.
2. Quoted rates should be inclusive of all taxes & rates should be given in prescribed format mentioned in ‘Schedule-A’ duly filled with the rates written in words and figures and signed.
3. **Scope of work:** As per ‘Annexure-A’
4. Enclose copy of following valid documents, along with quotations.
 - a) Registration under Shop Act or NOC of Gram panchayat or Udyam aadhar.
 - b) PAN card.
 - c) GST Registration certificate.
 - d) Minimum one ‘Work Order’ of similar work within last 3 years of any sector (MSETCL/MSEDCL/MSPGCL or any ‘Government/Semi-government/Private’ establishment)
5. **Your duly filled with sealed and super scribed quotation should reach this office on or before dtd. 27.01.2025 at 17.00 Hrs. without fail. Date of opening of quotation is 28.01.2025 at 12.00 Hrs. (Probable). Quotations received after due date & time will not be considered.**

6. The bidder is in his own interest expected to visit the site of the work and acquaint himself with the site conditions which may affect the work.
7. Bidder should not submit “Conditional Quotations” such conditional offer shall liable for rejection.
8. The successful Bidder shall accept the offer within 3 days from LOI/Work Order OR it will be presumed that concern bidder is not interested for same work. The successful Bidder shall pay 10% of the contract value towards ‘security deposit’ (S.D.) with the acceptance of LOI/Work Order. After expiry of the contract period, interest free ‘Security deposit’ will be refunded in normal course, subject to any deductions/penalty (if applicable) & as per MSETCL terms & conditions. In case of breach of contract during contract period, S.D. will be forfeited without assigning any reason.
9. The successful Bidder shall execute Agreement on Rs.500/- (Rs. Five hundred only/-) stamp paper in ‘MSETCL format’ within 3 days from the issue of Work Order/LOI. Bidder shall bear Cost of the ‘stamp paper & execution of agreement’.
10. Any disputes related to the contract shall be subject to the exclusive jurisdiction of Pune District Court only.
11. The right to place a ‘work order/LOI’ or to ‘cancel’ this work without assigning any reason is reserved with this office.

Thanking You.

Enclosed: ‘Schedule- A’ and ‘Scope of Work (Annexure-A)’

Yours faithfully

**Sd/-
(Anil Kolap)
Chief Engineer
EHV PC O&M Zone Pune**

**Copy to:
AGM (F&A), EHV PC O&M Zone Pune.
MF/Notice Board**

SCHEDULE 'A'

Sub: E-Enquiry for 'Supply & Installation of 4K 65 Inch Interactive display Panel for Zonal Office Pune with OPS & VC Device.'

Sr.No.	Description of Item	Quantity	Unit	Exclusive Price	GST Amount (18%)	Total Price
	A	B	C	D	E	F
1	Supply of 65 inch Interactive Display Panel	1	Each			
2	Supply of OPS	1	Each			
3	Supply of VC Device	1	Each			
4	Installation of Interactive Display Panel with OPS & VC Device	1	Each			
Total						

Sd/-
(Anil Kolap)
Chief Engineer
EHV PC O&M Zone Pune

Scope of Work (Annexure-A)

Sub: Supply & Installation of 4K 65 Inch Interactive display Panel for Zonal Conference Hall,Pune with OPS & VC Device.

Overview:

This document outlines the technical requirements for the Supply & Installation of a 65-inch 4K interactive with Open Pluggable Specification (OPS) with Video Conference Device (VC device)

A) Specifications for 4K 65 Inch Interactive display Panel:

1. Display Specifications

- a. **Size:** 65-inch screen.
- b. **Resolution:** Ultra High Definition (UHD).
- c. **Brightness:** Minimum of 350 nits for visibility in well-lit environments.
- d. **Contrast Ratio:** Minimum of 1200:1 (typical) to ensure clear differentiation between colors and shades.
- e. **Surface:** Anti-glare coating with a hardness level of at least 7H to minimize reflections and enhance durability.
- f. **Viewing Angle:** Horizontal and vertical viewing angles of 178 degrees for a wide audience.

2. Touch Functionality

- a. **Technology:** Infrared recognition for accurate touch response.
- b. **Touch Points:** Minimum of 40 simultaneous touch points for collaborative work.
- c. **Resolution:** High touch resolution for precise input.
- d. **Compatibility:** Support for both Windows (min 40 touch points) and Android (min 20 touch points).

3. Processing and Storage

- a. **Processor:** Multi-core architecture, including at least 4 Cortex-A73 cores and 4 Cortex-A53 cores.
- b. **RAM:** Minimum of 4GB to handle intensive applications.
- c. **Internal Storage:** At least 32GB for storage of essential software and documents.
- d. **Operating System:** Android 11 or higher, with upgradability for future compatibility.

4. Connectivity

- a. **Input Ports:**
 - o Min Three HDMI ports.
 - o USB ports (minimum four USB 3.0 and two USB 2.0)
- b. **Output Ports:**
 - o One 4k HDMI output
 - o One 3.5mm earphone jack audio output.
- c. **LAN Ports:** Dual RJ45 ports for network connectivity.
- d. **Wireless Connectivity:** Dedicated slot for Wi-Fi module to enable wireless presentations and device connections with wireless connectivity module.
- e. **OPS Slot**

5. Audio and Multimedia

- a. **Speakers:** Integrated sound system with dual speakers (min 12W) and a subwoofer.

6. Ergonomics and Environmental Requirements

- a. **Mounting:** VESA 600x400mm wall mount compatibility.
- b. **Blue Light Filtering:** Integrated low blue light technology to reduce eye strain.
- c. **Flicker-Free Technology:** Ensures visual comfort during prolonged usage.

7. Software Requirements

- a. **Annotation Tools:** Pre-installed software for real-time annotation and whiteboarding.

- b. **Wireless Presentation Support:** Integrated applications to enable screen sharing via multiple protocols (e.g., AirPlay, Miracast, Chromecast).
- c. **Device Management:** Centralized control software for remote management of devices.

8. Accessories

- a. **Included Components:**
 - Two touch-enabled pens with variable sizes and colors.
 - USB touch cable for input device integration.
 - HDMI cable for video connectivity.
 - Mounting screws and clamps for installation.
 - Camera plate for video conferencing setup.
- b. **Optional Upgrades:** Slot-in PC for enhanced performance.

9. Warranty and Certifications

- a. **Certifications:**
 - Compliance with energy efficiency standards (e.g., Energy Star 8.0).
- b. **Warranty:** 3 years onsite warranty by agency with standby spares.

B) Specifications for Video Conference (VC) Device:

1. Advanced Optics and Resolution:

- 4K Ultra HD resolution for clear and detailed visuals.
- Super wide-angle lens with a minimum field of view (FOV) of 120° to capture all participants.

2. Camera Performance:

- Pan/tilt functionality min $\pm 15^\circ$ for dynamic coverage.
- Min 5x digital zoom with voice-tracking technology for automatic focus on speakers.

3. Audio Excellence:

- Integrated speaker with a minimum 8W output.
- Beamforming microphone array with noise and echo cancellation.
- Full-duplex audio, automatic gain control, and a minimum 32K sampling rate.
- Microphone coverage distance minimum up to 6m (20 ft).

4. Connectivity and Compatibility:

- Multiple output options required, including HDMI 2.0, USB 2.0 Type-A, USB 3.0 Type-C, and Ethernet (RJ45).
- Plug-and-play functionality compatible with standard Windows operating systems like Windows 10 / 11 Pro etc. and conferencing software like MS Teams, Google Meet, Cisco Webex etc.

5. Operational Features:

- Digital noise reduction (2D and 3D) and advanced white balance settings for optimal video quality in various environments.
- Internal PTZ (Pan-Tilt-Zoom) and EPTZ (Electronic PTZ) support.

6. Physical and Installation:

- Compact design with dimensions approximately 600mm x 135mm x 115mm.
- Easy installation with included mounting brackets, screws, and anchors.

7. Optional Features:

- Bluetooth connectivity (minimum version 5.0) for seamless integration with external devices.

8. Warranty and Compliance:

- Minimum one-year warranty on parts and labour.

9. Additional Requirements:

The solution should integrate with existing conferencing setups and provide clear, uninterrupted video and audio quality for professional use.

C) Specifications for Open Pluggable Specification (OPS):

1. Processor and Performance:

CPU: Intel Core i5 processor, 11th Generation or equivalent. Minimum 8MB cache for efficient multitasking.

2. Graphics:

Integrated graphics capability equivalent to Intel Iris Xe.

3. Memory and Storage:

Memory: Minimum 8GB DDR4 SO-DIMM for efficient application handling.

Storage: 512GB SSD (M.2)

4. Connectivity:

LAN: RJ45 Gigabit Ethernet port.

Wireless: Dual-band Wi-Fi 6 (Intel AX201 or equivalent) and Bluetooth 5.2.

5. Minimum Input/Output Ports:

USB:

2 x USB 3.1 Type-A ports.

1 x USB 2.0 Type-A port.

1 x USB 3.1 Type-C port

HDMI: 1 x HDMI output for video connectivity.

Audio: 1 x combined audio/mic input.

6. Supported Media Formats:

Video: Compatibility with formats such as WMV, AVI, MPG, MPEG, and more.

Audio: Support for common audio codecs including MIDI, WAV, MP3

Image: Ability to display image formats like JPG, PNG, BMP, and TIFF.

7. Compliance and Packaging:

Compliance with relevant regulations such as BIS.

Package to include the slot-in PC module and minimum two antennas.

8. Operating System: Windows 11 Pro license (License key to be given by contractor)

General Terms & Conditions:

1. Product Condition: All systems must be brand new, sealed in original packaging, and not refurbished.
2. Supply and Installation: The contractor shall be solely responsible for the supply and complete installation of all specified items at their own cost wall mounted with suitable MSETCL conditions.
3. Warranty: A comprehensive onsite warranty of three (3) years must be provided for all supplied systems.
4. Relocation of Existing Equipment: The contractor will relocate the existing 55-inch TV screen to another location, installing it on a movable wall-mounted stand, at their own cost.
5. Remote Control: Remote controls must be provided as part of the complete package for all systems.
6. Installation Location:
Address: Office of the Chief Engineer,
Administrative Building, Block No. 402,
Rasta Peth, MSETCL, Pune-411011.
7. Adherence to Standards: All systems must comply with the standards specified on the respective brand's official web portal or user manual, and the contractor must ensure their delivery and installation as a complete package.

Sd/-
(Anil Kolap)
Chief Engineer
EHV PC O&M Zone, Pune