



Supply and Installation of indoor and outdoor CCTV system for Jhal Magsi Gas Field
Baluchistan

TENDER NO. TE/JM/PROJ/03/2024

TOR FOR SUPPLY AND INSTALLATION OF CCTV

Bids are required for supply and installation of outdoor and indoor CCTV system including cameras, cable, tv etc. for Jhal Magsi gas Field, located at District Jhal Magsi Baluchistan. The detail requirement is attached at Annexure –I & Annexure-II.

- i. Bidder to quote the material & services as per Annexure-I & Annexure-II. Contract will be awarded to the lowest in total (Annexure-I + Annexure-II).
- ii. Delivery and installation must be made within 2 weeks at Jhal Magsi site Baluchistan after placement of purchase order.
- iii. The detailed inspection of delivery material will be carried out at site.
- iv. LD charges in case of late delivery will be imposed up to maximum 15% of the amount of PO excluding tax.
- v. Payment will be made after delivery of material and system installation/commissioning at site.
- vi. Partial payment or advance cannot be made in any case.
- vii. All participating companies should have at least 3 years' experience in supply/installation of CCTV system for which bidder must provide at least three (03) POs for supply/installation of CCTV system.
- viii. Lodging will be provided to the installation team free of cost but meal will be charged.
- ix. Bidder must comply with industry HSEQ practices.
- x. The bidder must provide valid tax registration certificate i.e. NTN and PST and business location/ address and telephone numbers.
- xi. Earnest money/ bid bond of Rs: **100,000/-** in the shape of P.O/ DO Bank Guarantee shall be submitted with the bid.

TECHNICAL EVALUATION CRITERIA

Sr#	DESCRIPTION	MARKS	Min Qualifying Marks
i	Valid NTN/PST certificate	10	10
ii	Affidavit of Non-Black Listing duly attested by Notary Public	10	10
iii	Business address and telephone number	10	10
iv	Bidder must have three (3) years' experience in supply and installation of CCTV system. PO of last three years to be provided (at least three Nos of PO)	10	10
v	Clean acceptance of the TOR	10	10
Total			50

FINANCIAL BID FORMAT

<u>Sr#</u>	<u>Description</u>	<u>Quoted Price</u>
1	Total Cost for Annexure-I (a)	
2	Total Cost For Annexure-II (b)	
	Grand Total (c = a+b)	

- 1- Bidder to quote the price inclusive of all taxes.
- 2- Contract will be awarded to the lowest in total

Annexure-I

S.NO	REQUIRED ITEM	SPECIFICATIONS	Model	MANUFACTURER	QTY	UM	RATE	TAX	AMOUNT
1 Camera									
1.1	Boundary Wall Camera	<ul style="list-style-type: none"> - 4MP, 1/3" CMOS image sensor, low illumination, high image definition - Outputs 4MP (2560 × 1440) @25/30 fps, and supports max. 4MP (2888 × 1520) @20 fps - H.265 codec, high compression rate, ultra-low bit rate - Built-in IR LED, max. IR distance: 30 m - ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments - Image Rotation, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes - Abnormality detection: Motion detection, video tampering, network disconnection, IP conflict, illegal access, voltage detection - 12V DC/PoE power supply - IP67 protection 			10	NOS			
1.2	Pan-Tilt-Zoom (PTZ) Camera	<ul style="list-style-type: none"> • Focal Length: 4.8 mm – 120 mm. • Pan Range: 0° to 360° endless, Tilt: -15° to 90°. • Temperature: -40°C to +60°C operational range. • Video Compression: Smart H.265+/H.264, MJPEG. • 25x Optical Zoom: Its 4.8–120mm lens provides a powerful 25x zoom, making it highly effective for long-range surveillance. • Starlight Technology: This model supports low-light performance with 0.005 Lux sensitivity in color mode and 0 Lux with IR on, ensuring clear imaging in very dim environments. • Should have 6 IR LEDs that allow for night vision up to 100 meters (328 feet). • With 300 presets, 5 patterns, and auto-tracking features, it offers extensive control and customization for dynamic surveillance needs. • Certified with IP66 for outdoor use, it also provides 6KV lightning protection, making it suitable for challenging environments. 			2	NOS			
2 Networking Components									
2.1	OFC 12 Core Fiber Cable	<ul style="list-style-type: none"> • Types: Single-mode (OS2) / Multimode (OM3/OM4). • Construction: Central FRP member, water-blocking yarn, UV-resistant outer jacket. 	12 CORE						
2.2	POE Switch	<ul style="list-style-type: none"> • Ports: 4 PoE ports, 2 uplink ports. • PoE Standards: IEEE 802.3af, IEEE 802.3at. • Range: Up to 250m PoE transmission with watchdog functionality • Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format • Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled) • Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding • AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel SMD Plus • AI by Camera: Face detection and recognition, perimeter protection; SMD Plus; people counting; stereo analysis; heat map • Connected to the third-party network cameras • Security baseline 2.3 				NOS			
2.3	NETWORK VIDEO RECORDER	<ul style="list-style-type: none"> • AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel SMD Plus • AI by Camera: Face detection and recognition, perimeter protection; SMD Plus; people counting; stereo analysis; heat map • Connected to the third-party network cameras • Security baseline 2.3 			1	NOS			
2.4	Giga Switch	<ul style="list-style-type: none"> • 5-Port Unmanaged Gigabit Switch • Supports five 10/100/1000 Mbps adaptive ports. • Specification Hardware Included Power Adapter Yes Ethernet Port Speed 10/100/1000 Mbps Description of Function Slots Port 1-5: 5 × 10/100/1000 Base-T Power Supply 5 VDC; 1 A Operating Temperature 0 °C to +45 °C (+32 °F to +113 °F) Operating Humidity 5%-95% (RH) Storage Temperature -40 °C to +70 °C (-40 °F to +158 °F) Storage Humidity 5%-95% (RH) Power Consumption Idling: 0.5 W Full load: 1.5 W Performance MTBF 363,24 years Switching Capacity 10 Gbit Packet Forwarding Rate 7.44 Mbps Packet Buffer Size 1.5 Mbit MAC Table Size 2K General Statics Protection Air discharge: 8 kV Contact discharge: 4 kV Lighting Protection Common mode: 2 kV Net Weight 0.16 kg (0.35 lb) Gross Weight 0.28 kg (0.62 lb) Product Dimensions 87.0 mm × 47.0 mm × 22.0 mm (3.42" × 1.85" × 0.87") Packaging Dimensions 94.0 mm × 111.0 mm × 67.0 mm (3.70" × 4.37" × 2.64") Casing Material Metal Installation Desktop mount Certifications CE, FCC 			2	NOS			
3 Storage, Display, and Other Accessories									
3.1	Hard Drive	<ul style="list-style-type: none"> • with tarnish resistance and +Rescue option. • Load/Unload Cycles: 300,000, rated for continuous operation. • Capacity To Record atleast for 20 Days for the give TOR • 4TB x 3 		SEA GATE	2	NOS			
3.2	LED 40"	<ul style="list-style-type: none"> • Resolution: 1920x1080 (Full HD), 40" of Size • OS: Android R, HDR10 support. • Connectivity: HDMI, USB, SPDIF, and A/V inputs. • With Complete Rack and Fittings 			1	NOS			
4 Cabling and Infrastructure									
4.1	Fiber Patch Cord	<ul style="list-style-type: none"> • Core Types: Single-mode (OS1/OS2) / Multimode (OM1-OM4). • Connector Options: LC, SC, ST, or MTP/MPO. • Jacket: PVC for indoor use, LSZH for fire safety, or armored for outdoor use 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			
4.2	HDPE Pipe	<ul style="list-style-type: none"> • Designed for secure underground or external fiber cable routing. • 1" Outer Dia and 2.4mm ± Thickness 	COMPLIANCE TO INTL PN	VENDOR TO SPECIFY BRAND		MTR			
4.3	HDMI Cable (5m)	<ul style="list-style-type: none"> • Features: Aluminum-Mylar shielding with PVC jacket. • Length to be 5 Meter 	BEST QUALITY	VENDOR TO SPECIFY BRAND	1	NOS			
4.4	UTP CAT6 Cable	<ul style="list-style-type: none"> • Oxygen-free copper conductor with PVC sheath. • Compliant with PoE, flame-retardant, and supports high-speed networks. • 23 Gauge Size 				MTR			
5 Racks and Distribution Frames									
5.1	6U Rack with Accessories	<ul style="list-style-type: none"> • To house network switches, NVRs, and other components securely. • With Complete accessories • 1.2mm Thickness 	METAL RACK	VENDOR TO SPECIFY BRAND	1	NOS			
5.2	ODF 12 Port	<ul style="list-style-type: none"> • Rack-mounted, loaded • Chassis: SPCC material, with ABS/PC trays for splicing. • 12 Port Converter 				NOS			
5.3	ODF 4 Port	<ul style="list-style-type: none"> • Rack-mounted, loaded • Chassis: SPCC material, with ABS/PC trays for splicing. 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			
5.4	ODF 8 Port	<ul style="list-style-type: none"> • Rack-mounted, loaded • Chassis: SPCC material, with ABS/PC trays for splicing. 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			
6 Power and Waterproofing									
6.1	Power Cable	<ul style="list-style-type: none"> • Voltage Rating: 250-440V. • Insulation: PVC-protected for heat and moisture resistance. • 3-strand, 0.029 inches each 	MILLION SUPREME	MILLION SUPREME		COIL			
6.2	Waterproof Steel Box	<ul style="list-style-type: none"> • For secure outdoor equipment storage. • 10" x 12" with key lock • 1.2mm Thickness 	METAL BOX GOOD GUAGE	VENDOR TO SPECIFY BRAND		NOS			
7 ADDITIONAL EQUIPMENT									
7.1	Media Converter Giga	<ul style="list-style-type: none"> • Media Converter Giga Standards and Protocols IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Auto-negotiation of Half-Duplex / Full-Duplex transfer mode Ports: 1 1000M SFP port, 1 10/100/1000M RJ45 port (Auto MDI/MDIX) Wave Length: Depends on the used SFP module Network Media 1000BASE-X Multi-mode/Single-mode SFP module Network Media 1000BASE-T UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 1000 STP (maximum 100m) LED Indicators, PWR, Link/Act Dimensions (W*D*H) 3.72*2.9*1.1 in. (94.5*73.0*27.0 mm) Power Supply: External Power Adapter Max Power Consumption: 1.7W Safety & Emission: FCC, CE, RoHS Operating Temperature: 0°C-40°C (32°F-104°F) Storage Temperature: -40°C-70°C (-40°F-158°F) Operating Humidity: 10%-90% non-condensing Storage Humidity: 5%-90% non-condensing 				NOS			
7.2	PVC Box (4" x 4")	<ul style="list-style-type: none"> • PVC Material 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			
7.3	Wireless Mouse	<ul style="list-style-type: none"> • Type: Wireless • Connection: 2.4G Hz • Ergonomic Design: Symmetric • Sensor Technology: Optical • Resolution: 1000 DPI • Report Rate: 125 Hz • Buttons No.: 3 • Receiver: Nano USB Receiver • Power Source: 1AA Alkaline Battery • System Requirements: Windows XP / Vista / 7 / 8 / 8.1 / 10 			1	NOS			
7.4	PTZ Bracket	<ul style="list-style-type: none"> • Material SECC & SUS304 • Dimension (WxHxD) 130.4mmx170mmx45mm (5.13"x6.69"x1.77") • Mast Diameter φ80-150mm (φ3.15"-5.91") • Pole mount bracket • Load Bearing 7kg(15.4lb) • Weight 0.85kg(1.87lb) • Camera Mount Series 			2	NOS			
7.5	Miscellaneous Equipment	<ul style="list-style-type: none"> • Includes ties, clips, flexible pipes, clamps, sockets, elbows, for 1" PVC, HDPE size and other items relevant to the Completion of CCTV Job. 	BEST QUALITY	VENDOR TO SPECIFY BRAND	1	NOS			
7.6	PVC CONDUIT	<ul style="list-style-type: none"> • 1 INCH PVC CONDUIT WITH ACCESSORIES 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			
8 SERVICES:									
8.1	CCTV INSTALLATION, LED, CIVIL WORKS, TESTING, COMMISSIONING, TRAINING & OTHER RELEVANT TO CCTV INSTALLATION	<ul style="list-style-type: none"> • Installation: Secure mounting of cameras, proper cabling, LED and network configuration, Fiber Fusion Splicing and Wiring, Civil Works: Digging, Trenching, Electrification (where required) with back standard Filling along with Breakers and other components installation of equipment relevant to CCTV Job Completion • Fiber Laying, UTP Laying and Power Cable with their conduits i.e., HDPE, PVC Pipe along with accessories (Clamp Distance on pipe to be at 3ft) 	WORK COMPLETION CERTIFICATE	N/A	1	JOB			
9 Warranty and Compliance									
9.1		<ul style="list-style-type: none"> • All components and installation must meet industry standards. • Warranty: Manufacturer and vendor to provide standard warranties for all supplied items for 1 year. • Safety Certifications: CE, FCC, RoHS, and others where applicable. 	DOCUMENTS TO BE PROVIDED	N/A					
SUB TOTAL									
GST 18%									
BST 15%									
GRAND TOTAL									

Annexure-II

S.NO	REQUIRED ITEM	SPECIFICATIONS	Model	MANUFACTURER	QTY	UM	RATE	TAX	AMOUNT
Camera									
1.1	Indoor Plant Security Camera	<ul style="list-style-type: none"> • 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image. • Outputs max. 2 MP (1920 × 1080)@30 fps. • H.265 codec, high compression rate, ultra-low bit rate. • Built-in multi-core light, the max. IR distance is 30 m and the max. warm light distance is 15 m. • DWDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. • ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. • Built-in Mic. • 12 VDC/PoE power supply, easy for installation. • IP67 protection. • Supports human detection. 			4	NOS			-
Networking Components									
2.1	OFC 12 Core Fiber Cable	<ul style="list-style-type: none"> • Types: Single-mode (OS2) / Multimode (OM3/OM4). • Construction: Central FRP member, water-blocking yarn, UV-resistant outer jacket. 	12 CORE			MTR			-
2.2	POE Switch	<ul style="list-style-type: none"> • Ports: 4 PoE ports, 2 uplink ports. • PoE Standards: IEEE802.3af, IEEE802.3at. • Range: Up to 250m PoE transmission with watchdog functionality. • Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format • Max. decoding capability: 6 × 1080p@30 fps. Supports adaptive decoding • 1-channel face detection and recognition (AI by NVR); 1-channel perimeter protection (AI by NVR); up to 10 face databases and 5,000 face images; 4-channel SMD Plus (AI by NVR); • AI by camera: Face detection and recognition, perimeter protection, and SMD Plus. • Connected to the third-party network cameras • Security baseline 2.1 • Multi-channel Playback Up to 16 channels • Record Mode Manual record; alarm recordings; motion detection recordings; scheduled recordings • Storage Local HDD and network • Backup USB device • Playback Function 1. Play; pause; stop; fast forward; fast backward; rewind; play by frame 2. Full screen; backup (vide clip/file); partially zoom in; audio on/off 			2	NOS			-
2.3	NETWORK VIDEO RECORDER	<ul style="list-style-type: none"> • 5-Port Unmanaged Gigabit Switch • Supports five 10/100/1000 Mbps adaptive ports. • Specification Hardware Included Power Adapter Yes Ethernet Port 5 Ethernet Port Speed 10/100/1000 Mbps Description of Function Slots Port 1-5: 5 × 10/100/1000 Base-T Power Supply 5 VDC; 1 A Operating Temperature 0 °C to +45 °C (+32 °F to +113 °F) Operating Humidity 5%-95% (RH) Storage Temperature -40 °C to +70 °C (-40 °F to +158 °F) Storage Humidity 5%-95% (RH) Power Consumption Idling: 0.5 W Full load: 1.5 W Performance MTBF 363,24 years Switching Capacity 10 Gb/s Packet Forwarding Rate 7.44 Mpps Packet Buffer Size 1.5 Mbit MAC Table Size 2K General Statics Protection Air discharge: 8 kV Contact discharge: 4 kV Lighting Protection Common mode: 2 kV Net Weight 0.16 kg (0.35 lb) Gross Weight 0.28 kg (0.62 lb) Product Dimensions 87.0 mm × 47.0 mm × 22.0 mm (3.42" × 1.85" × 0.87") Packaging Dimensions 94.0 mm × 111.0 mm × 67.0 mm (3.70" × 4.37" × 2.64") Casing Material Metal Installation Desktop mount Certifications CE; FCC 			1	NOS			-
2.4	Giga Switch	<ul style="list-style-type: none"> • with tarnish resistance and 4Rescue option. • Load/Unload Cycles: 300,000, rated for continuous operation. • Capacity To Record atleast for 20 Days for the give TOR • 4TB x 3 • Resolution: 1920x1080 (Full HD), 32" of Size • OS: Android R, HDR10 support. • Connectivity: HDMI, USB, SPDIF, and A/V inputs. • With Complete Rack and Fittings • 32" 			1	NOS			-
Storage, Display, and Other Accessories									
3.1	Hard Drive	<ul style="list-style-type: none"> • with tarnish resistance and 4Rescue option. • Load/Unload Cycles: 300,000, rated for continuous operation. • Capacity To Record atleast for 20 Days for the give TOR • 4TB x 3 			1	NOS			-
3.2	LED 32"	<ul style="list-style-type: none"> • Resolution: 1920x1080 (Full HD), 32" of Size • OS: Android R, HDR10 support. • Connectivity: HDMI, USB, SPDIF, and A/V inputs. • With Complete Rack and Fittings • 32" 			1	NOS			-
Cabling and Infrastructure									
4.1	Fiber Patch Cord	<ul style="list-style-type: none"> • Core Types: Single-mode (OS1/OS2) / Multimode (OM1-OM4). • Connector Options: LC, SC, ST, or MTP/MPO. • Jacket: PVC for indoor, LSZH for fire safety, or armored for outdoor use 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
4.2	HDPE Pipe	<ul style="list-style-type: none"> • Designed for secure underground or external fiber cable routing. • 1" Outer Dia and 2.4mm ± Thickness 	COMPLIANCE TO INTL PN	VENDOR TO SPECIFY BRAND		MTR			-
4.3	HDMI Cable (5m)	<ul style="list-style-type: none"> • Features: Aluminum-Mylar shielding with PVC jacket. • Length to be 5 Meter • Oxygen-free copper conductor with PVC sheath. • Compliant with PoE, flame-retardant, and supports high-speed networks. • 23 Gauge Size 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
4.4	UTP CAT6 Cable	<ul style="list-style-type: none"> • Compliant with PoE, flame-retardant, and supports high-speed networks. • 23 Gauge Size 				MTR			-
Racks and Distribution Frames									
5.1	4U Rack with Accessories	<ul style="list-style-type: none"> • To house network switches, NVRs, and other components securely. • With Complete accessories 	METAL RACK	VENDOR TO SPECIFY BRAND		NOS			-
5.2	ODF 4 Port	<ul style="list-style-type: none"> • Rack-mounted, loaded • Chassis: SPCC material, with ABS/PC trays for splicing. 	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
Power and Waterproofing									
6.1	Power Cable	<ul style="list-style-type: none"> • Voltage Rating: 250-440V • Insulation: PVC-protected for heat and moisture resistance. • 3-strand, 0.029 inches each 	MILLION SUPREME	MILLION SUPREME		COIL			-
6.2	Waterproof Steel Box	<ul style="list-style-type: none"> • For secure outdoor equipment storage. • 10" x 12" with key lock • 1.2mm Thickness 	METAL BOX GOOD GUAGE	VENDOR TO SPECIFY BRAND		NOS			-
ADDITIONAL EQUIPMENT									
7.1	Media Converter Giga	<ul style="list-style-type: none"> • Media Converter Giga Standards and Protocols IEEE 802.3z, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Auto-negotiation of Half-Duplex / Full-Duplex transfer mode Ports: 1 1000M SFP port, 1 10/100/1000M RJ45 port (Auto MDI/MDIX) Wave Length, Depends on the used SFP module Network Media 1000BASE-X Multi-mode/Single-mode SFP module Network Media 1000BASE-T UTP category 5e cable (maximum 100m) EIA/TIA-568 1000 SFP (maximum 100m) LED Indicators, PWR, Link/Act Dimensions (W*D*H), 3.7*2.9*1.1 in. (94.5*73.0*27.0 mm) Power Supply, External Power Adapter Max Power Consumption, 1.7W Safety & Emission, FCC, CE, RoHS Operating Temperature: 0°C-40°C (32°F-104°F) Storage Temperature: -40°C-70°C (-40°F-158°F) Operating Humidity: 10%-90% non-condensing Storage Humidity: 5%-90% non-condensing 			2	NOS			-
7.2	PVC Box (4"x4")	PVC Material	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
7.3	Wireless Mouse	<ul style="list-style-type: none"> • Type: Wireless • Connection: 2.4G Hz • Ergonomic Design: Symmetric • Sensor Technology: Optical • Resolution: 1000 DPI • Report Rate: 125 Hz • Buttons No.: 3 • Receiver: Nano USB Receiver • Power Source: 1AA Alkaline Battery • System Requirements: Windows XP / Vista / 7 / 8 / 8.1 / 10 			1	NOS			-
7.4	Miscellaneous Equipment	Includes ties, clips, flexible pipes, clamps, sockets, elbows, for 1" PVC, HDPE size and other items relevant to the completion of CCTV Job.	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
7.5	PVC CONDUIT	1 INCH PVC CONDUIT WITH ACCESSORIES	BEST QUALITY	VENDOR TO SPECIFY BRAND		NOS			-
SERVICES:									
8.1	CCTV INSTALLATION, LED DISPLAY SETUP, CIVIL WORKS, TESTING, COMMISSIONING, TRAINING, AND OTHER SERVICES RELATED TO CCTV IMPLEMENTATION.	Installation: Secure mounting of cameras, proper cabling, LED and network configuration, Fiber Fusion Splicing, Wiring Electrification (where required) and Enclosures installation with breakers and other components installation of equipment relevant to CCTV Job Completion Civil Works: Digging, Trenching with back stand and Filling Fiber laying, UTP laying and Power Cable with their conduits i.e., HDPE, PVC Pipe along with accessories (Clamp Distance on pipe to be at 3ft)	WORK COMPLETION CERTIFICATE	N/A	1	JOB			-
Warranty and Compliance									
9.1		<ul style="list-style-type: none"> • All components and installation must meet industry standards. • Warranty: Manufacturer and vendor to provide standard warranties for all supplied items for 1 year • Safety Certifications: CE, FCC, RoHS, and others where applicable. 	DOCUMENTS TO BE PROVIDED BY VENDOR	N/A					-
SUB TOTAL									
GST 18%									
BST 15%									
GRAND TOTAL									