

**MORMUGAO PORT TRUST**  
**ENGINEERING MECHANICAL DEPARTMENT**

Quotation no.: CME/XEN(E-P)/quotation/2022/03



**QUOTATION**  
**FOR**  
**“SUPPLY AND INSTALLATION OF CCTV CAMERAS AT ALL**  
**ELECTRICAL SUBSTATIONS AT THE PORT”**

Due at 11.00A.M on 10.02.2022

Website : <https://www.mptgoa.gov.in/>

**MORMUGAO PORT TRUST**  
**ENGINEERING MECHANICAL DEPARTMENT**

Quotations are invited in a sealed cover from experienced firms duly superscribed as QUOTATION FOR “Supply and installation of CCTV cameras at all Electrical substations at the Port ”.

**Details about Quotation:**

Quotation No.	CME/XEN(E-P)/quotation/2022/03
Name of Work	Supply and installation of CCTV cameras at all Electrical substations at the Port.
Completion Period	30 days from the date of issue of Letter of intent (LOI)
Estimated Cost (INR)	Rs.4,85,800/- (excl. of GST)
EMD	Rs.11,465/- (Rupees Eleven Thousand four hundred and sixty five only incl. of 18% GST) Bidder claiming exemption under MSE shall produce exemption certificate as per Clause 1.2.2.2 of this document.
Cost of Quotation Document	Rs. 590/- (Rupees Five hundred and ninety only) (incl. of 18% GST). Non-refundable or exemption (MSME) certificate as per Section-I, General Terms and Conditions, clause No 1.1. Note: Bidders not providing EMD & Quotation Document Cost (producing exemption (MSME) certificate) before due date and time shall be disqualified.
Penalty	As indicated at clause No 1.11.
Security Deposit	3% of the contract value as per Section-I, General Terms & Conditions, clause No 1.7.
Payment terms	100% payment on satisfactory completion of the works, acceptance by the Port and upon submitting undisputed bills alongwith relevant documents (EPF/ESI challans, muster roll, wage register). Contractor bank details to be furnished as per Appendix-I.
Bid Submission	As indicated at clause no. 1.6.
Bid Validity	<b>120 Days</b> from the due date of submission of the quotation.
Guarantee Period	One year as per the clause 1.9 from the date of satisfactory completion of works.
Date of submission	10.02.2022 till 11:00 Hrs.
Date of Opening	10.02.2022 at 11:30 Hrs
Address for communication and submission of bid:	Executive Engineer (E-P), Engineering Mechanical Dept., Mormugao Port Trust, Headland Sada, Goa – 403804.
Contact Details	Phone : 0832-2594243 ; Email : <a href="mailto:xenproj.mgpt@gmail.com">xenproj.mgpt@gmail.com</a>
Website	<a href="https://www.mptgoa.gov.in/">https://www.mptgoa.gov.in/</a>

**EXECUTIVE ENGINEER (E-P)**  
**MORMUGAO PORT TRUST**

## SECTION – I

### 1.0. GENERAL TERMS AND CONDITIONS

#### 1.1. Cost of the Quotation Document:

1.1.1. The Bidder is required to furnish Document cost of Rs.590/- (Rupees Five Hundred and Ninety only) (incl. of 18% GST) in the form of DD from Nationalized/Scheduled Banks in favour of the Financial Advisor & Chief Accounts Officer, MPT, payable at Vasco, Goa, to be submitted along with the Quotation. The Document cost is non-refundable.

1.1.2. Micro and Small Enterprises (MSE) registered with District Industries Centre (DIC) or Khadi and Village Industries commission or Khadi & Industries Board (KVIB) or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar memorandum or any other body specified by Ministry of MSME shall be exempted of payment of document cost on producing self-attested valid supporting certificates issued by the governing body.

#### 1.2. Earnest Money Deposit:

1.2.2.1. The Bidder shall furnish an EMD of 11,465/- (Rupees Eleven Thousand four hundred and sixty five only incl. of 18% GST), without EMD the quotation shall be treated invalid. The E.M.D. shall submitted in the form of DD from Nationalized/Scheduled Banks in favour of the Financial Advisor & Chief Accounts Officer, MPT, payable at Vasco, Goa.

1.2.2.2. Micro and Small Enterprises (MSE) registered with District Industries Centre (DIC) or Khadi and Village Industries commission or Khadi & Industries Board (KVIB) or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar memorandum or any other body specified by Ministry of MSME shall be exempted of EMD on producing self-attested valid supporting certificates issued by the governing body.

1.2.2.3. In the event of Bidder withdrawing his Bid before the expiry of bid validity period of 120 days from the date of opening of Price Bid, the Bid (Quotation) submitted by the Bidder shall be cancelled and EMD shall be forfeited.

1.2.2.4. The Earnest Money Deposit of unsuccessful Bidders shall be returned on award of Contract to the successful Bidder. No interest shall be payable on the amount of E.M.D in any case. The Earnest Money Deposit of the successful Bidder shall be refunded only on receipt of Security Deposit as stipulated in the Quotation enquiry.

1.2.2.5. MPT reserves the right to forfeit the Earnest Money Deposit in respect of successful Bidder, if he fails to furnish the necessary Security Deposit towards performance within 15 days from the date of issue of Purchase Order (PO).

1.2.2.6 In addition to above, the EMD shall be forfeited by the Port in the following events:

i.) If the Bid is withdrawn or varied or modified in a manner not acceptable to Port during the validity or extended validity period as agreed by the Bidder.

- ii.) If the Bidder tries to influence the Bid evaluation, bid comparison or contract award decision.
- iii.) In case the Bidder, submits false certificate in terms of any documents supported to the Quotation / Enquiry.
- iv.) In case the bidder is found to indulge in corrupt or fraudulent practices at any stage including the execution of the contract.

**1.3.1. Financial Eligibility Criteria:**

The Bidder should have an Average Annual financial turnover of at least Rs.1,45,800.00 for the three financial years ie 2017-18, 2018-19,2019-20.

Incase of Micro and Small Enterprises, the Average Annual financial turnover shall be at least Rs.72,900.00, subject to production of certificate issued by MSME authorities.

**1.3.2. Minimum Eligibility Criteria:**

a) Experience of having successfully completed a similar work at any time during the last 7 years ending last day of month previous to the one in which quotations are invited. In support of this, the Bidder shall submit Self attested photo copies of LOA/work order/agreements showing the awarded contract value for "similar works" and satisfactory Completion Certificates issued by the Client, indicating the date of Completion and completed Contract Value failing which the work shall not be considered for evaluation. Also, the bidders are required to submit TDS certificates pertaining to the referred completed work and IT returns acknowledgement for previous two years. Incase the Bidder has carried out works for MPT, then the work order alongwith the completion certificate may be furnished alongwith the duly filled in price schedule, the TDS certificate need not be furnished.

**Similar works** means "Supply and Installation of CCTV camera surveillance system at Central Govt. / State Govt. / Port Sector / PSU or any reputed organisation."

b) The Tenderers shall submit letter of Authorisation from OEM, specifically for the subject Tender, indicating back to back support for IP cameras, Wireless Transmitters / Receivers, NVRs, and software.

c) All the proposed RF Equipment's (wireless) shall have ETA Approval (EQUIPMENT TYPE APPROVAL) issued by the Wireless Planning & Coordination Wing (WPC Wing) and a copy of the ETA shall be furnished.

**1.4. Evaluation of the Bid:**

1.4.1. An offer shall be considered responsive and for evaluation if:-

- (i) it is accompanied by requisite EMD or exemption certificate as per clause 1.2.2.2,
- (ii) it is accompanied by requisite Cost of Quotation document / exemption certificate as applicable,
- (iii) the validity of the offer is same as stipulated in the quotation document,
- (iv) it meets the Financial Eligibility Criteria as indicated at 1.3.1.
- (v) it meets the Minimum Eligibility Criteria and have furnished work order copy, work completion certificate copy and other documentation as indicated at 1.3.2. (b and c).
- (vi) The Bid is received by Port by Due date and time of submission including any extension thereof.

1.4.2. In case the bidder submits Bid with alterations/additions, conditional offer / imposes own terms and conditions / does not accept tender conditions completely, his/her Bid shall be summarily rejected.

1.4.3. **Evaluation** will be done on Basic Price (Total of price in the Price Schedule (BOQ)) and lowest offer shall be considered among all Bidders for award of work. The rates offered shall be exclusive of GST. If any new tax imposed by the State/Central Govt., same shall be reimbursed by producing documentary proof. In case the rates quoted in figures and words are not identical, then rates entered in words shall be deemed as the price quoted for the item in question.

**1.5. Bid Validity:**

The Bid validity shall be 120 days from the due date of submission of the quotation.

**1.6. Submission of Quotation**

1.6.1. The sealed envelope containing EMD, DD towards cost of document **or** SSI/MSME exemption certificate; work order; completion certificate, etc should be super-scribed as “Supply and installation of CCTV cameras at all Electrical substations at the Port”, alongwith the duly filled price schedule shall be dropped before the due date and time in the TENDER BOX located on second floor of the Port’s Administrative Bldg. Mechanical Engineering Department at Headland Sada.

1.6.2. Bidder shall submit only one quotation by due date and time. In the event the Bidder is submitting more than one quotation, then all his quotations shall not be opened and summarily rejected.

1.6.3. The Bidder shall be allowed to be present during the opening of the quotation, in-case he/she desires to. However, necessary COVID-19 related SOPs to be followed and valid RT-PCT test report / vaccination certificate to be produced before the CISF at the main gate.

**1.7. Security Deposit:**

The contractor shall within 15 days from the date of issue of PO, shall furnish a DD towards Security Deposit equivalent to 3% of the contract value, rounded off to nearest 100 rupees. This Security Deposit will be converted to Performance Guarantee upon completion of the work. The DD shall be from Nationalized/Scheduled Banks in favour of the Financial Advisor & Chief Accounts Officer, MPT, payable at Vasco, Goa.

The Security Deposit converted to Performance Guarantee will be refunded to the contractor after satisfactory completion of contractual guarantee period as per clause no.1.9. from the date of satisfactory completion of work and acceptance by Port.

The Board may, at its option, forthwith forfeit the above Security Deposit in whole or part, if in the opinion of the Board the contractor has failed to fulfill any or all of the conditions of this contract without prejudice to any and all rights of the Board to recover from the contractor any amount falling due to the Board through non-observance by the contractor of any of the clause thereof.

**1.8. Completion Period:**

The entire work shall be completed within **30** days from the date of issue of Letter of Intent (LOI).

### **1.9. Guarantee Period:**

The Contractor shall guarantee the subject work for a period of one year from the date of satisfactory completion of work and acceptance by Port. If any defect is observed during the guarantee period, the same shall be rectified by the Contractor, free of cost under guarantee obligations.

### **1.10. Payment Terms:**

i.) 100% payment after satisfactory completion of the works. Separate invoices shall be raised towards supply of materials and towards installation / execution works.

The payment will be released within 30 days from the date of receipt of undisputed bills in duplicate and with all other supporting documents (EPF/ESI challans, muster roll, wage register).

The contractor shall furnish their bank account details alongwith other details as per Appendix-I. The payment will be made in ECS mode. A copy of the PAN card, GST Registration, EPF& ESI registration.

### **1.11. Penalty:**

The fault, if any, should be attended within 48hrs from time of intimation of complaint from Port, failing which an amount of Rs. 1000/- per day or part thereof will be deducted from security deposit as penalty.

### **1.12. EPF/ESI:** Applicability of EPF and ESI Act. (applicable in-case of manning)

The Bidder / Contractor shall ensure strict compliance of the labour laws including those under the Employees State Insurance Act, 1948 and the Employees Provident Fund & Miscellaneous Provisions Act, 1952 and rules and regulations framed therein.

The Bidder / Contractor shall ensure that the statutory contribution towards the Employee State Insurance Act, 1948 and the Employees Provident Fund & Miscellaneous Provision Act, 1952 in respect of the employees engaged by him are deposited with the authority concerned and a proof having deposited the contribution should be produced at the office of CME by 10th of the succeeding month in which the payment was due.

In the event any Bidder raises a dispute that he is not covered under the provisions of Employees State Insurance Act, 1948 and the Employees Provident Fund & Miscellaneous Provision Act, 1952 such Bidder should obtain Certificate from the Competent Authority of EPF under these Acts and produce the same documentary evidence at the office of the Chief Mechanical Engineer.

The amount recovered if any, as statutory dues in respect of the Employees Provident Fund and Miscellaneous Provisions Act, 1952 and the Employees State Insurance Act, 1948 shall be released only after producing documentary evidence / no dues certificate from the authorities under these Acts.

### **1.13. Security & Safety Requirements:**

It will be entirely the contractor's responsibility to take required steps to adequately safeguard the personnel carrying out the work and to ensure that the work is carried out in such a manner that maximum safety to the personnel is assured. Further any insurance of the personnel as per regulations in force has to be taken care of by the contractor.

The contractor shall comply with all regulations imposed by the customs and Port security authorities in respect of the passage of vehicle, materials and personnel through customs and Port barriers. No photographs/films of the work or any part thereof and of Plant/premises shall be taken or permitted to the contractor without the specific approval of the General Administration Department of the Port.

**1.14. Gate Pass:**

Necessary RFID entry passes shall be obtained by the Contractor at their own cost with the approval of Port Officials for entry into Port area. The same can be obtained online from our website [www.mptgoa.gov.in](http://www.mptgoa.gov.in).

**1.15. Injury/Damage to persons and property:**

- i.) The contractor shall take all precautions while carrying out the contract work against any possible damage to Port property. Should any such damage be done by the contractor, he shall make good or bear the cost of making good the same, when brought to his notice, without delay to the satisfaction of the Engineer, failing which the same will be recovered from the bill.
- ii.) The contractor shall indemnify the Port against any claim that may arise for any damage to or loss to Port property or injury caused to Port personnel or to any labour engaged by the contractor, during the execution of the contract. The Port will not be responsible for any failure on the part of the contractor or his agent to take necessary measures or precautions in this regard. In this regard contractor will be wholly responsible, if any injury/death of his person on duty, and contractor shall take necessary insurance policy to cover the staff while at work to meet any such eventualities.

**1.16. Force Majeure:**

Notwithstanding anything in this contract to the contrary, neither the MPT nor the contractor shall be liable or deemed to be in default for any failure or any delay in performance hereunder, if caused by “force majeure” which term shall mean but not be limited to fire, explosion, natural causes like flood, earthquake, civil commotion, strikes epidemic, pandemic and other acts of God, action of enemies, act of any government or other similar causes beyond the control of the party affected, who shall notify the other party within a reasonable time from the beginning of the operation of said cause and shall thereafter exert all diligence to overcome such cause of delay and resume performance.

**1.17. Personal Protective Equipments:**

The Contractor shall be solely responsible, at his own cost, for the supply of required PPE to his workers and staff and he shall also ensure the use of PPE such as helmets, safety shoes, nose masks, hand gloves, Safety Harness or any other equipment as required depending on nature of work by his staff at site.

**1.18. Foreclosure of Contract**

Notwithstanding anything in the contract document, the contractor agrees that the Port shall be entitled to foreclose the contract on occurrence of the following events:

- i. In the event of breach of contract by the Contractor
- ii. An emergency or

iii. for national security and /or national interest and /or public reasons.

Upon the occurrence of the events specified in the above (i),(ii) and (iii)above, the Port reserves the right to fore close the contract at any point of time during the contract period on the issue of the termination notice. The Port shall not be liable to compensate the contractor or any other person for any losses or estimated loss of profits during such period.

**1.19. Work not to sublet:**

The contract shall not be assigned or sublet without the written prior approval of the Engineer in charge.

**1.20. Indemnification:**

The contractor shall be deemed to indemnify and keep indemnified the Port from and against all actions, claims, demands and liabilities whatsoever under and in respect of the breach of any of the provisions of any law, rules or regulations having the force of law, including but not limited to –

- a) The Minimum Wages Act, 1948.
- b) The Dock Workers (Regulation of Employment) Act, 1948
- c) The Building And Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996
- d) The Dock Workers' Safety, Health & Welfare Act, 1986
- e) The Payment of Wages Act, 1936.
- f) The Workmen's Compensation Act, 1923.
- g) The Employees Provident Fund Act, 1952.
- h) The Contract Labour (Regulation and Abolition) Act, 1970; Rules 1971.
- i) The Payment of Bonus Act, 1965.
- j) The Payment of Gratuity Act, 1972.
- k) The Equal Remuneration Act, 1976.
- l) The Employees State Insurance Act, 1948 & Employees State Insurance (Amendment) Act,1989
- m) Child Labour (Prohibition and Regulation) Act, 1986.
- n) The Maternity Benefits Act 1961
- o) Interstate Migrant Workmen (Regulation Of Employment & Conditions Of Service) Act, 1979.
- p) Motor Vehicle Act, latest revision

**1.21. Taxes:**

The contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.

The Contractor shall remit the GST amount in the invoice to the Government within the due dates and also file the returns by mentioning the GSTIN of the Mormugao Port Trust (MPT) to enable Port to avail eligible Input Tax Credit (ITC). The Contractor shall indemnify MPT from any loss of eligible ITC of GST paid by it to the Contractor based on their tax invoice, due to non-payment of GST or non-filing of GST returns by the Contractor or non-compliance of GST Act/provisions. The Contractor shall remit such GST amount with applicable interest and penalties to the MPT within 7 days from the date of intimation by MPT about non-availing of eligible ITC. MPT also reserves its right to deduct such GST amount with interest and penalties from the subsequent bills, Security Deposit or any amount due to the contractor by MPT.



**Other terms and conditions:**

- i) All tools and tackles shall be arranged by the Contractor at their own cost.
- ii) **The Bidders are advised to visit the site and get acquainted regarding the nature of the work involved at site conditions before quoting the rate.**
- iii) The technical specification at Section II and Price Schedule (Bill of Quantities) at Section III to be read in conjunction to ensure the actual supply and works involved.
- iv) The Crane shall be provided by the Port on chargeable basis for execution of the work.
- v) The contractor shall provide any other items which have not been specifically mentioned in the Price Schedule (Bill of Quantities), but which are found necessary for completion of the works without incurring any additional expenditure to the Port.
- vi) The Contractor shall pay the labour engaged by him for the work a fair wage, as may be fixed by the Labour Department of the State as per the applicable Minimum Wages Act. The payment shall be strictly made to the labour by the contractor through Bank Account.
- vii) Address for communication and submission of bid:
  - 1.) Executive Engineer (E-P)  
2<sup>nd</sup> floor A.O. Bldg, Headland Sada, Engineering Mechanical Dept., Mormugao Port Trust,  
Mormugao, Goa – 403804.  
Phone: 0832-2594243.
- xi) Further amendments if any, visit our website <https://www.mptgoa.gov.in/>

**EXECUTIVE ENGINEER (E-P)  
MORMUGAO PORT TRUST**

## SECTION-II

### TECHNICAL SPECIFICATION

#### **2.0. GENERAL**

Mormugao Port Trust invites a quotation for the work of “Supply and installation of CCTV cameras at all Electrical substations at the Port”.

#### **2.1 SCOPE OF WORK:**

Supply, Installation, testing & commissioning of Out-door type IP camera based Fixed complete with housing and mounting kit and all other accessories Including Camera mounting structures, Transmitters & Receivers complete with all accessories, NETWORK VIDEO RECORDER, LED DISPLAY MONITOR, POE switches, Junction Boxes and laying of CAT6, Power cable, OFC and PVC heavy duty conduit pipes.

The schematic for CCTV network is indicated at Appendix-II.

The installation of the cameras is as indicated below:

<b>Sr. no.</b>	<b>Location</b>	<b>No. of Cameras to be installed</b>
<b>1</b>	<b>Substation A</b>	<b>5</b>
	a) 33KV Panel Room	2
	b) 3.3KV Panel Room	1
	c) LT Panel Room	2
<b>2</b>	<b>Harbour Substation</b>	<b>2</b>
<b>3</b>	<b>Headland Substation</b>	<b>1</b>
<b>4</b>	<b>Hospital Substation</b>	<b>1</b>
<b>5</b>	<b>Admin Bldg Substation</b>	<b>3</b>
	<b>Total</b>	<b>12</b>

#### **2.2 STANDARDS and CODES**

- i.) The Fixed Cameras and Network Video Recorders shall comply with ONVIF standards and shall be UL/CE and FCC Certified.
- ii.) The Cameras, NVR and its Software shall be from the same OEM and shall comply with ONVIF standards.
- iii.) Wireless shall be UL/ CE and FCC Certified.

## **2.3 TECHNICAL SPECIFICATIONS:-**

### **2.3.1 IP FIXED CAMERA**

Total sensor pixels	2 Megapixel
Sensor Type	1/2.7" (+/- 10%), Progressive Scan CMOS,
Lens	Automatic Vari-focal Lens
Frame Rate	25/30fps (1920x1080)
Minimum Illumination(Color/Monochrome)	0.08Lux@F2.0@1/25s
Video functions	Digital zoom
	3DNR(Dynamic Noise Reduction)
	HLC and Backlight Compensation
	ICR (Auto Day night)
IR distance	20 meter
Input Voltage	Dc 12V and PoE with IEEE standard
Ingress Protection	IP66 by default without any adaptation
Video compression	H.264/MJPEG
Streaming Capacity	Two-Stream
Memory	Card of 64GB
ONVIF	ONVIF compliant
Certifications	UL/CE and FCC

Note: Cameras shall be supplied with its suitable Power supply and its mounting arrangements as per site conditions i.e. wall, pole mount any with all required accessories & fitments.

### **2.3.2 WIRELESS TRANSMITTERS & RECEIVERS.**

Data rate	50Mbps
Type	Capable of Point to point
Frequency Range	5 Ghz and above (free operating frequency range)
Range	15Km.
Channel width	5MHz / 10 MHz / 20MHz / 40 MHz
Modulation	MIMO-OFDM (64-QAM or higher) with Forward Error Correction (FEC)
Transmit power range	20 dBm and above
Powering Method	POE
Ingress Protection	IP67 by default without any adaptation
Operating Temperature	10 deg to 55 deg
Wind survival	150 km/hr
Encryption	128bit AES
Certifications	UL/CE and FCC Certified

### 2.3.3 NETWORK VIDEO RECORDER 16 CHANNEL

No of Channels supported	16 channels
Power Input	12DC, 5A
Storage	Enterprise class Hard disk, 4 HDD slots and loaded 18 TB HDD (Multiples of 4TB, 6TB)
Support Image Format	H.264/MJPEG
Max number of cameras	16
Supported browser	OS windows 7/8/10
Alarm	Input- 16, Output - 4
External storage	USB port
Output	2 HDMI port
Network Interface	2 number of 10M/100M/1000M
ONVIF	ONVIF compliant
Certifications	UL/CE and FCC

NVR Shall be supplied with suitable video management software for parallel monitoring on minimum five PC, recorded images if required shall be downloaded in PC also. NVR shall support external storage device also for future expansion of storage systems.

### 2.3.4 DISPLAY MONITOR 40" LED

Resolution	1,920 x 1,080 (16:9)
Type	60 Hz LED BLU :1920x1080(16:9)
Pixel Pitch(mm/in)	0.15x0.46
Active display(mm/in)	885.6x498.1
RGB	Analog D-SUB, DVI-D
Video	CVBS, Component, HDMI
Audio	Stereo mini jack

### 2.3.5 Miscellaneous Items

Misc items, like saddles, fitting materials, switch, sockets, screws, nuts, fasteners, jointers, sealants, accessories, etc as required to run the system included in quote.

## 2.4 SYSTEM OVERVIEW/ GENERAL FEATURES:

- System capable to work for Day & Night operations (Automatic)
- System in Central Control Room should work on its Power back up mode automatically in case of Power failure.
- All such locations where mounting structures and related accessories are required should be provided by the contractor within the cost quoted. Site survey should be undertaken.
- All equipment's should be heavy duty for 24 Hours operations.
- All required equipment's mentioned/not-mentioned but required for smooth running of system is to be in outdoor weatherproof enclosure.
- **Recording & Viewing features:**
  - Event recording
  - Motion Detection (sequential recording)
  - Scheduled recording
  - Adjust brightness, Contrast, Saturation & hue for a clearer view
  - Support digital zoom in to view specific areas
  - 24hours/day, 7days/week unmonitored surveillance recording

- **Play back and search**
  - Playback 20 video records simultaneously
  - Search video records by camera, date, event types and time segments
  - Remote viewing and control, Non-stop recording
  - Backup video records manually or by schedule and directly backup recording files to CD/DVD/USB.

## **2.5 INSTALLATION & COMMISSIONING**

- a) The Contractor shall carry the work as per the BOQ.
- b) The Contractor shall commence and complete the work within 30days from date of issue of LOA to the satisfaction of the Chief Mechanical Engineer or his representative. Necessary scaffolding and safety measures for entire erection shall be done by the contractor.
- c) The work should be carried out with utmost safety precaution with minimum possible disruption of existing camera feeds.
- d) The installation of the various equipment's shall be carried as per the site condition and as directed by the EIC. The Contractor shall carry out the works in co-ordination with the on-going AMC Contractor.
- e) **Technical brochures/ data sheets of Cameras, wireless and NVR should be submitted with the tender specifically for models the tenderer intends to supply.**  
**Note:** Change in the location of cameras will be at the discretion of the Engineer.
- f) The Contractor / partners that will provide firmware updates and system maintenance, ensuring it is always up to date and quickly fixing any uncovered security flaws.
- g) The Contractor should remove all default usernames and passwords from all cameras and recording systems to prevent unauthorized access protocols as default usernames and passwords are a key cause for most cyber security issues. Installations to be done by adopting specific security.
- h) The Contractor shall ensure that the CCTV Network devices are not exposed to Internet.
- i) Power and water will be provided by the Port free of cost.

## **2.6 TESTS**

Necessary tests certificates as per relevant CE or UL certificate and ONVIF standards of the equipment's etc shall be submitted alongwith the bid for models quoted for camera, NVR to the satisfaction of the Chief Mechanical Engineer or his representative.

## **2.7 MANUALS, DRAWINGS AND GUARANTEE**

On completion of the work the Contractor shall supply 3 sets of operation and maintenance manuals after commissioning. The soft copy of all the drawings and manuals should also be provided which shall include General arrangement of the **"Wireless Digital Video Surveillance System"** with principal details, Schematic electric, electronic and programmable controller details and any other special feature which the bidder wishes to highlight.

The installation shall be guaranteed for 12 months from the date of acceptance and free maintenance shall be done during the guarantee period.

## **2.8 MAINTENANCE DURING GUARANTEE PERIOD.**

1. The contractor shall provide one-year guarantee for the equipment's installed. The maintenance during guarantee period shall include replacement of all defective components of the system including the cameras.

2. The Contractor shall arrange his own tools and tackles including ladder for carrying out the works during the installation and guarantee period.
4. During warranty period if any of the equipment supplied by the Contractor i.e camera, NVR, wireless transmitters and receivers, etc. are found defective /Damaged, same has to be replaced by the Contractor at their cost. Therefore Bidders shall assess the environmental conditions, wind speed etc in respect to the supply of quality of equipment's and workman ship so as to ensure continual stability in running of system successfully. The bidder shall maintain basic inventory of required spares for upkeep of the CCTV Camera Surveillance systems.
5. In case need arises, the technicians should be present after office hours and during holidays without any cost and liability to the Port. The tenderer shall provide contact telephone number/ mobile and E-mail address to also register complaints at his office.

**2.9.** The Bidder shall have a local office in Goa.

**EXECUTIVE ENGINEER (E-P)  
MORMUGAO PORT TRUST**

**SECTION-III**

**PRICE SCHEDULE (BILL OF QUANTITIES – BOQ)**

**Name of the Work:** "Supply and installation of CCTV cameras at all Electrical substations at the Port."

**Quotation No.:** CME/XEN(E-P)/quotation/2022/03

Sr. No	Description	HSN / SAC Code	Unit	Qty	Rate/Unit (Rs.)		Amount (Rs.)	Applicable GST (%)
					In Fig	In Words		
A	B	C	D	E	F	G	H=ExF	I
I.	<b>SUPPLY:</b>							
1.	2MP IP Camera as per Technical Specifications.		Nos	12				
2.	NVR 16 channel as per Technical Specifications.		Nos	1				
3.	4TB Surveillance Hard disk		Nos	1				
4.	8Port 100Mbps PoE switch		Nos	3				
5.	1Gbps Single mode media converter		Nos	2				
6.	Wireless modem with 50mbps throughput.		No	4				
7.	CAT 6 Indoor Cable 305Mtr bundle.		No	2				
8.	6U Network rack with fan, Power Strip and accessory		No	4				
9.	6 Port LIU with adapter and Pigtail loaded		No	2				
10.	SC-LC Single mode OFC Patch cord		No	2				
11	2" 3Mtr Pole		No	1				
12	Accessories like screw, clamp, bends, flexi pipe etc.		LS	1				

II. INSTALLATION:								
1.	Fixing, Installation of Camera		No	12				
2.	Fixing and Installation of NVR		No	1				
3.	Installation of Wireless Bridge		Pair	2				
4.	Laying of Casing capping		Mtr	300				
5.	Laying of Cat 6 cable		Mtr	900				
6.	Laying of HDPE Pipe		Mtr	350				
Sr. No	Description	HSN / SAC Code	Unit	Qty	Rate/Unit (Rs.)		Amount (Rs.)	Applicable GST (%)
					In Fig	In Words		
A	B	C	D	E	F	G	H=ExF	I
7.	Laying of OFC		Mtr	250				
8.	Fixing of Network rack		No	4				
9.	Splicing of OFC Cores		No	12				
10	Trenching (excavation of road and backfilling with excavated soil & concreting the surface.)		Mtr	50				
11.	Configuration of all equipment, supervision, documentation and 1year on-site Support		LS	1				
Total (in figures)								

Total (In Words) Rupees \_\_\_\_\_ only.

**Date:**

**Signature:**

**Place:**

**Name:**

**Address:**

**Office Seal of firm**

**Note:** 1.The offered rates shall be exclusive of GST.

2. Evaluation will be done on Basic Price (Total of price in the Price Schedule (BOQ)) and shall



be considered lowest among all Bidders for award of work subject to approval by Competent Authority.

3. The rates in figures and words should be the same, any discrepancies observed, the rate indicated in words shall be considered for evaluation. Also, any discrepancy noticed while calculating amount or summing up the total, the value indicated in words shall be considered for evaluation.

## **APPENDIX - I**

### **BANK DETAILS FOR ECS PAYMENT**

1. Name of the Bank and Branch :
2. Account Number :
3. MICR Number :
4. Type of Account :
5. IFSC Number :
6. Copy of PAN Card :
7. TIN Number :
8. GST Regn. No.:
9. EPF No. :
10. ESI Regn. No.

**Firm's Sign and Seal**

Place:

Date:

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