

BOKARO POWER SUPPLY CO. (P) LTD.

**HALL NO:- M-01, OLD ADMINISTRATIVE BUILDING,
ISPAT BHAVAN, BOKARO STEEL CITY – 827001**

CIN:U40300DL2001PTC112074

Reg. Office : Ispat Bhawan, Lodhi Road, New Delhi - 110 003

TENDER NOTICE NO.: BPSCL/CEO/P&C/16-17/C-232/NIT-636/2670

Dated 01/06/2017



TENDER DOCUMENT

NAME OF WORK: Supply, Erection, Testing and Commissioning of Fire Detection and Alarm System.

COST: Rs.3500/-

(Rupees Three Thousand Five Hundred only)

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Bokaro Power Supply Co. (P) Ltd.

(A Joint Venture of SAIL & DVC)

Hall No: - M-01, Old Administrative Building,

Ispat Bhavan, Bokaro Steel City – 827001

NOTICE INVITING TENDER

CIN:U40300DL2001PTC112074

Reg. Office : Ispat Bhawan, Lodhi Road, New Delhi – 110 003

NIT No. : BPSCL/CEO/P&C/16-17/C-232/NIT-636/2670

Date: 01/06/2017

For and on behalf of BOKARO POWER SUPPLY COMPANY (P) LTD, sealed tenders in three parts, **Part - A** : Cost of Tender document & EMD, **Part- B** : Technical & Commercial Offer and **Part – C** : **Online Price Bid** are invited, from reputed, experienced and financially sound firms for the following work at our Power Plant.

Description of Work	Supply, Erection, Testing & Commissioning and Non-comprehensive AMC of Fire Detection and Alarm System
Earnest Money (in Indian Rs.)	Rs. 1,00,000/- (Rupees One lakh) only
Cost of tender documents (Non-refundable) (in Indian Rs.)	Rs. 3,500/- (Rupees Three Thousand Five Hundred) Only
Period of contract	01 (One) year from the date of commencement of Work.
Last date & time of submission of tender	14/07/2017 at 12.00 Hrs. (IST)
Bid opening Date & Time.	14/07/2017 at 12:15 Hrs. (Part A & B)

Qualifying Requirements / Eligibility Criteria :

1. Average annual turnover (AAT)

Bidder should have Minimum average annual turnover (MAT) of **Rs.156.90 Lakhs**

- ⇒ Average annual turnover shall be determined taking into consideration turnover of available preceding three consecutive financial years. Other income shall not be considered for arriving at annual turnover.
 - ⇒ Audited annual accounts along with auditor's report of the bidder should be furnished in support of the same. Where audited annual account is not mandatory as per the law, the bidder has to submit annual financial turnover during the consecutive last three (03) years, ending 31st March of the previous financial year duly certified by CA.
2. The bidder should be an manufacturer / an authorized representative of the Manufacturer / certified system integrator having infrastructural facilities of carrying out assembly, testing and repairing of FDA system in India. A declaration in this regard mentioning the available resources and organization strength should be submitted.
3. In case of bidder being an authorized representative / certified system integrator, a letter of Authorization from the Equipment Manufacturer must be submitted. The authorized representative / certified system integrator must have successfully executed at least one project based on system for which they are bidding.

4. Technical Capability :

The bidder should have requisite experience of supply, erection, testing and commissioning of Microprocessor based Addressable Fire Detection and Alarm System to any PSU, Central / State Government Organization / Semi Government / Joint Venture of PSUs / or Private Companies Registered under Company act 1956 (Proof of registration under Company act 1956 should be submitted by the bidder). The bidder should submit self-attested order copy (ies) of following as a documentary evidence of having installed a system in industrial setup of a power / process plant during last 7 years ending last day of the month previous to the one of issue of the NIT. The value of such Purchase Order (s) should be as follows :

- ⇒ Three similar completed works each costing not less than **Rs. 41.80 lakhs**
OR
⇒ Two similar completed works each costing not less than **Rs. 52.30 lakhs**
OR
⇒ One similar completed work costing not less than **Rs. 83.70 lakhs**

Note: *If the order consists of several items, the value of only similar items will be considered for evaluation.*

Similar Work means: *Supply, Erection, Testing and Commissioning of Microprocessor based Addressable Fire Detection and Alarm System.*

5. In support of their eligibility and experience, the bidder is required to submit self attested photo copies of work orders, completion certificates (by the concerned competent authority etc.) along with the techno-commercial bid. In addition, bidder shall submit an affidavit as per format at **Annexure-VII**, declaring that the documents submitted by them are genuine.
6. Bidding by a Consortium of vendors is not acceptable.
7. The bidder shall furnish authenticated copies of latest IT Return, Service Tax Registration, EPF certificate & ESI Certificate.

The bidder is also required to submit Annexure IX & X as instructed there in.

General Terms & Conditions:

- i) Offer shall be accompanied with Cost of the tender documents of **Rs. 3,500.00** (non-refundable) in the shape of Demand Draft / Banker's Cheque drawn from any Nationalized / Scheduled Bank except Co-Operative Bank, in favour of **Bokaro Power Supply Company (P) Ltd.**, Payable at Bokaro Steel City.

However Government organizations / Small scale industries registered with NSIC is not required to submit the cost of tender document subject to production of the documentary evidence like valid Registration certificate of the same item or group of item from appropriate Govt. Authority.

- ii) Offer shall be accompanied with Earnest Money Deposit (EMD) of **Rs.1,00,000.00 (Rupees One lakhs) Only** in the shape of Demand Draft / Pay Orders / Bankers Cheque Payable at Bokaro Steel City // Bank Guarantee having validity for, one (01) year, from any Nationalized Bank / Scheduled Bank except Co-operative Bank drawn in favour of **Bokaro Power Supply Company (P) Ltd.** as per format available at our website: www.bpscl.com

However EMD exemption wherever applicable may be availed of by Micro & Small Enterprises (MSEs) / PSUs / Govt. Undertakings and Co-operative Societies etc., as per Government policy. For MSEs, the exemption from EMD is to granted only on submission of valid notarized copy of certificate having a valid Entrepreneurs Memorandum (EM) number. SSI / NSIC certificate holders are required to submit a copy of Entrepreneurs Memorandum for EMD exemption.

- iii) The undersigned reserves the right to either reject any / all the tenders without assigning any reason thereof & also reserves the right to alter the qualifying requirements.

Note:

1. Tender documents are to be downloaded from Website: www.bpscl.com only.
2. Bidders are requested to visit above website regularly for any addendum / corrigendum / Extension till opening of the NIT. **Any such changes shall not be published through Press advt.**

For and on behalf of
Bokaro Power Supply Company (P) Limited

Sd/-

(J.M Prasad)

DGM (P&C)

Tel : 8986874098

Email : purchase.bpscl@gmail.com

Conditions & Rules to be observed in submitting Tenders

1.01 Manner of Submission of the Tender

The tender shall be divided into 03 parts as follows:-

- a) **Part A:** This part Comprises of Cost of Tender document & EMD, NIT No. & date marked with Part A.
- b) **Part B:** This part Comprises of Technical and Commercial details, consent on terms & conditions of NIT along with copy of System generated **acknowledgement-slip** for Online submission of sealed price bid etc. marked with (Part-B) Techno-Commercial Bid, NIT No. & Date (*In hard copy*)

Note : Part A & Part B shall be submitted in hard copy at following address :

DGM (P&C)
Bokaro Power Supply Co. (P) Ltd.
Hall No.M-01, Old ADM Building
Ispat Bhawan, Bokaro Steel City – 827001
Ph : 06452 240380, Tel :8986874098

- c) **Part C:** Online sealed Price Bid through URL : <http://www.buyjunction.in>

The process of submission of Online Price bid is as detailed hereunder-

Step 1: Type <http://www.buyjunction.in> in the internet explorer.

Step 2: Click on Login (present on Top right side of the Page)

Step 4: Click on **View Live Auctions and Tenders**.

Step 5: In the right side open/ global tenders link will be displayed.

Step 6: Click on the link for the above mentioned tender link present under Open tenders

Step 7: Click on new user if you are not registered in buyjunction earlier. Click on Existing user in-case you have already registered in buyjunction earlier. Existing users can login with their user id and password.

Please note foreign bidders are required to select their bidding currency from the drop down available before proceeding further (where ever applicable).

New Users:

Steps to get your **User Code** and **Password**

1. Click on the required tender link under “**Open Tenders**”
2. Choose your Auction currency in-case any option is coming to select currency. Click on “**New User**”
3. Fill up the “**Registration Form**” and click on “**Submit**”. All fields marked with (*) are mandatory fields.
4. On submitting the filled-up registration form, an auto generated email will be sent to the email address you have mentioned in the registration form containing your User Code and Password.
5. Changing of password on first login is compulsory.
6. On receipt of the User Code and Password you become an **Existing User**. Now follow the steps of existing user to login to the auction site.

Existing Users

1. Click on the required tender link under “**Open Tender**”
2. Click on “**Existing User**”.
3. Log in with your existing user code and password for placing your bid.
4. Read through the “**Bidding Procedure**” to proceed further for bidding.

Bidding Procedure

After logging in with your user id and password you have to accept the “**Auction Terms**”.

Steps to accept the “Auction terms”:

1. Click on “**Auction Terms**”.
2. Then click on “**View term without DSC**”
3. Click on the relevant auction terms appearing under “**Term**” column.
4. Select the check box on the left-side of the relevant auction terms.
5. Click on the button besides “**Accept**”.
6. Then click on “**Submit**”.
7. A message will be displayed to you mentioning your acceptance to terms for auction.
8. It is mandatory to accept the terms of online bidding in order to proceed for submission of bid.

Steps to Submit Price Bid

1. Click on “**Bids.**”
2. Then click on “**Live Auction.**”
3. Put your login password as transaction password
4. Select the auction id and click on add to watch list.
5. Now the bidding screen is visible.

6a. For Template Bidding

1. Click on **Icon “T”** on left column of bidding screen (Which will appear separately **for each lot**).
2. A template form will open where you need to fill up the price & click on evaluate at the bottom
3. If you want to quote the evaluated price then click on “**confirm**”.
4. After clicking on the confirm button of the template window, your price will appear in the “**New Bid**” box.

6b. For Non-Template Bidding

1. Fill your Price in the “**New Bid Box**” visible on the bidding screen.
2. Select the check box at the extreme left of the bidding screen
3. Click on “**Submit**” button placed at the bottom left of the screen.
4. Bid once placed will have to be honoured.
5. You will see “**Bid Accepted**” in the “**Result**” column. This indicates that your bid is accepted and registered in the system.

Steps to take a print-out of the receipt

1. Once you have placed your bid, to download Bid Receipt, kindly click on “**Download**”.
2. Then click on “**Bid Receipt for Open Tender**”.
3. Select the auction to generate receipt.
4. Take print out of the same market-wise (Term List)/ item-wise (Auction list).

Note:

1. **Current price, Market status, Start Bid Price, Bid Decrement, Effective Price** will not be available.
2. Time remaining for the event to close will be shown under the Bid Summary screen.
3. For any clarification on the bidding process please contact
Mr. Manish Nandwana _ 9163348165_ manish.nandwana@mjunction.in
Ms. Monalisa Shaw _ 9163348297_ monalisa.shaw@mjunction.in
Mr. Sumit Kumar Das – 8873002750 - sumit.das@mjunction.in for Bokaro Office
A copy of System generated **acknowledgement-slip for Online submission of sealed price bid to be submitted along with Techno-commercial Bid.**

- 1.01.1 A & B part should be sealed in separate envelopes, clearly superscribing on the top of each envelope the relevant part number and description along with NIT reference and date of opening and submit all the parts simultaneously in another sealed envelope clearly superscribing NIT reference and date of opening.

1.02 Tender Validity Period

The tender shall be valid at least for 150 (One hundred fifty) days from the date of opening.

1.03 General

- i) Tenderer's are requested to visit site for actual assessment of the job before submission of their offer.
- ii) The tender rates shall be written in English, both words and figures. In the case of any discrepancy between the words & figures of the rates quoted, the rates expressed in words shall be taken as correct. In the case of discrepancy in the Unit Rate and Amount, Unit Rate will govern.
- iii) All pages of the tender documents, conditions, specifications & all enclosures must be signed with seal of the company at the lower left hand corner by the tenderer before submission of the tender.
- iv) If the intending tenderer is a Firm or Company, then they shall, in the forwarding letter, mention the number and names of all the partners & shall sign before submitting the same, unless the Power of Attorney holder has specifically been authorized in this respect.
- v) If any tenderer withdraws his tender before its acceptance or refuses within a reasonable time without giving any satisfactory and acceptable explanation thereof, the tenderer shall be disqualified for making any tender of the BPSCL for a minimum period of one year and the Earnest Money will be forfeited.
- vi) **Handling of Earnest Money:**
 - a) Earnest Money will be refunded to the un-successful tenderer after finalisation of tender and no interest will be paid for the same. Bidders are requested to provide Bank Details for refund of EMD.
 - b) The amount of Earnest money will be adjusted against Security Deposit only in case of successful Tenderer.
- vii) In case the date of tender opening happens to be holiday, the tender will be opened on the next working day at the same time.
- viii) **Any conditional offer or offer having deviations from our qualifying requirement, specification & instruction sheets is liable to be rejected.**
- ix) BPSCL reserves the right either to reject any/all the tenders without assigning any reason thereof.

General Terms and Conditions

- 2.01 Bidders are requested to visit the site before submission of the bid to get acquainted with actual site condition.
- 2.02 You will have to follow and observe the safety & statutory requirements.
- 2.03 You will have to fully responsible for any sort of unsafe activity of your workmen.
- 2.04 All working personnel should have proper safety certificates issued by BPSCL before start of work.
- 2.05 Supervision of the work has to be carried out by the agency.
- 2.06 Work is to be carried out as per instruction & satisfaction of the Engineer-In-Charge.
- 2.07 Rates are to be quoted on firm price basis. Any conditional offer is liable to be rejected.
- 2.08 In case of any documents/information submitted by the bidder(s) found to be false or containing any misrepresentation of having any fraudulent declaration in it then in such eventuality legal action (including cancellation of contract, banning of business dealing, forfeiture of EMD, criminal proceedings etc.) as deemed fit may be initiated by BPSCL against the bidder.
- 2.09 **Payment Terms :**
- a). Supply Part**
- i. 80% of supply cost including 100% of taxes & duties etc. will be paid against receipt of materials at site duly certified by Engineer – in – charge.
 - ii. 10% of supply cost will be paid after commissioning of the system duly certified by Engineer – in – charge.
 - iii. 10% of supply cost will be paid after completion of guarantee period duly certified by Engineer – in – charge.
- b). Erection and commissioning**
- i. 80 % of total Erection & commission charges with 100% taxes & duties will be paid on pro rata basis as per progress of work duly certified by Engineer – in – charge.
 - ii. 10% of total Erection & commission charges after commissioning of the system duly certified by Engineer – in – charge.
 - iii. 10% of total Erection & commission charges after completion of observation/testing period of three months
- c). AMC**
- i. Payment of AMC Charges will be done on Pro rata basis as per satisfactory progress of work duly certified by Engineer in charge.

The expression satisfactory execution of the order shall mean fulfillment of all obligation arising out of and the guarantees stipulated in the contract. In default at satisfactory execution of the order the security deposit shall be forfeited to the BPSCL.

Any penalty for which the successful tenderer shall be found liable or any liquidated damages which shall be payable to the BPSCL in terms of the Contract, shall also be recoverable by the BPSCL from the Security deposit. If such security deposit will not be adequate for the purpose of liquidating the amount of penalty and/or damages as contemplated, the amount in excess thereof shall be deducted from any sum or sums which may be due or may become due to the successful tenderer from the BPSCL on any account whatsoever.

Notwithstanding what has been stated above if the successful tenderer shall have duly performed all his obligation under and the guarantees stipulated in the contract and observe all the terms and conditions thereof and no penalty shall have been recoverable from him and / or the BPSCL shall not have suffered any damages whatsoever, then security deposit

shall be refunded, on receipt of a certificate from the Engineer in - charge that there is no claim against the Successful tenderer under the Contract.

- 2.10 Contractor will produce medical fitness certificate for his workers prior to CLC clearance for working at height. Height passes to be obtained from safety department.
- 2.11 You will have to strictly adhere to the provision of various labour laws including payment of bonus Act 1965.
- 2.12 You will have to pay Rs.4/- extra to the working persons as per BPSCL rules above minimum wage of one day.
- 2.13 Offer is to either type written or by handwritten and in no case partly type written and partly hand written. No corrections, overtyping shall be permitted without duly authenticated.
- 2.14 Tenders shall be accompanied by a copy of latest IT Return submitted, Service Tax Registration No. (if applicable) of the Individual / Party/Firm submitting the Tender.
- 2.15 Paying authority –In - charge (F&A), BPSCL.
- 2.16 Tenderers shall quote their firm rates and no negotiations will be held except with the lowest tenderer, if required.
- 2.17 In accepting the order you are understood to accept to all responsibilities for completing the work in all respect.
- 2.18 Where a claim of Service Tax is preferred and admitted, the tenderer must satisfy that he is a registered contractor under Service Tax Act and possesses a Certificate of Registration in the firm's name in which the service is made and shall in proof thereof, while submitting bills for payment, furnish the number, date and other particulars of such Certificate.
- 2.19 The manpower (labour and Supervisor) deployed for completion of the job and for compliance of work & safety of the workmen should be adequate. However the compliance and completion of the job cannot be restricted to labour supply but on the actual execution of the job to be certified by the Engineer – In – charge.
- 2.20 **VDA Clause** : During operation of the contract, if there is an upward revision of minimum wages, VDA by the appropriate Government, the Contractor shall be entitled to reimbursement of such additional amount on actual basis subject to production of documentary evidence. The base date shall be the Bid opening date OR Revised offer date (in case of negotiated prices)
- 2.21 **Work accident** :
 - a. You will be totally responsible for the safety of the workers employed by them. In the event of any work-accident, major or minor, your representative you must take care of the injured person immediately and provide him the required treatment as suggested by the doctor. The injured person may be admitted to BGH for the treatment by paying the charges as demanded by the hospital authority.
 - b. You shall be fully responsible for making payment of compensation to your own workmen or to those of your sub-contractor in respect of any accident or injury occurring to them. BPSCL will in no way be responsible for it and will remain indemnified against all such claims of compensation in such cases
- 2.22 **SUBMISSION OF BANK GUARANTEE FOR QUOTING UNWORKABLE RATE:**

If a tenderer quotes unworkable rates i.e. if the quoted price is less than the lower limit of the estimated price and is considered for placement of order, the party will be asked to justify the rate quoted and will have to give Performance Guarantee Bond (in addition to the Security Deposit) in the form of Bank Draft/Bank Guarantee. The amount of Performance Guarantee Bond will be equal to the difference between lower limit of estimated price and quoted price of the tenderer. Earnest Money of the tenderers who refuse to give Performance Guarantee Bond will be forfeited and they will not be considered for taking participation in any kind of Tender for next Six (06) months from the date of issue of letter to the Defaulter Firm, if order / contract is not finalised from the present tender.
- 2.23 **FORCE MAJEURE** : Vendors / Contractor shall not be considered in default if delay occurs due to cause beyond their control such as acts of God, natural calamities, civil wars fire, strike, frost, floods, riot and acts of unsurpassed power. Only those causes which have

duration of more than seven days shall be considered in force majeure clause. In the event of delay due to such clause the delivery / completion period will be extended for a length of time equal to the period of force majeure of at the option of owner order may be cancelled without any liability what so ever on the part of the owner.

2.24 **RATE FINALIZATION:**

BPSCL reserves the right to finalize the rate through either of the following modes:

1(a). Either through Online Seal Bid Price Bid obtained just before Reverse Auction

OR

1(b). Opening of Online Price (*submitted on www.buyjunction.in*)/ physical Price Bid, submitted at the time of techno-commercial bid.

2. Through Reverse Auction to be conducted by our service provider M/s. mjunction.

3. If RA is not concluded for any reason, RA may be re-launched or case may be determined on the basis of online/physical price received along with the techno-commercial bid.

4. Where it is decided not to conduct the RA, the techno-commercially accepted bidders shall be asked to submit online sealed or physical sealed decrement/s. In this case – On line/ physical price bid/s and online decrement or physical decrements, as decided by BPSCL, shall be opened together on same day and case be processed.

2.25 **The Parties should clearly indicate their prices firm in all respects till execution of the work order.**

2.26 In case of asking any variation on any account whether sales tax or Service tax (wherever applicable) will not be treated as firm price on that account and hence parties should state everything clearly.

2.27 **Special Instruction:** Tender will be opened on **14.07.2017 at 12.15 PM**. If it is declared a holiday by BPSCL then in the next working day at the same time in the presence of Tenderer's Authorized Representatives, who wish to be present.

Scope of works:

1.0 The scope of work includes the complete Design, Engineering, Supply, Erection, Testing, Commissioning, Performance Tests and Handing over of Analogue addressable type Fire Detection and Alarm System for various premises on turnkey basis.

The broad areas where fire detection system is to be installed are listed below:

- a. Unit Control Rooms / Electrical Control Rooms
- b. MCC Rooms, HT/LT Switchgear Rooms including 6.6 KV&11KV Room
- c. Designated Cable Galleries & Cable Tunnels
- d. Battery Rooms

The detailed list of areas to be covered is as follows:

Sl. No.	Description	Approx. Size in Meter	False Ceiling
1	GCB-1	35X8X3.5	Yes
2	Dust Feeder Room	30X8X3.5	No
3	GCB-2	20x8x3.5	Yes
4	Operator Room	8x8x3.5	Yes
5	MCC-6	15x8x3.5	Yes
6	UCR-1	15x8x3.5	Yes
7	Stair & Lobby	8x8x3.5	No
8	UCR-2	25x8x3.5	Yes
9	Non-Operating Room	15x8x3.5	No
10	MCC-7	15x8x3.5	Yes
11	MCC-8	15x8x3.5	Yes
12	ECR-II	20x20x5	Yes
13	ECR-I	30x30x5	Yes
14	6.6 KV Room-1	120x7x4.5	No
15	6.6 KV Room-2	120x8x4.5	No
16	LT S/G CPP	120x10x4.5	No
17	Exciting Panel -6	5x3x4.5	No
18	Exciting Panel -7	5x3x4.5	No
19	Exciting Panel -8	5x3x4.5	No
20	11 KV Room	90x10x4.5	No
21	Bowl Mill Cable Gallery	90x6x3	No
22	CPP 6.6 KV Cable Gallery& TPP	120x8x3.5	No
23	LT S/G TPP	90x10x5	No
24	Switch Yard Tunnel-1	90x3x3	No
25	11 KV Room No-3 Cable Gallery	90x4x5	No
26	11 KV Room No-2 Cable Gallery	90x4x5	No
27	11 KV Room No-1 Cable Gallery	90x4x5	No
28	11 KV to 6.6 KV Tunnel	30x4x5	No
29	Switch Yard Tunnel-2	80x4x5	No

The specification shall be read in conjunction with general conditions of contract. The contractor has to strictly agree to all the terms and conditions mentioned in tender documents. Detailed scope

of work is given in next point. Items not specifically mentioned but required for completion of the job shall be treated as included.

Contractor to comply all works as per IS 2189, TAC and NFPA Guidelines. In case of conflict the stringent shall govern.

2. **SUPPLY :** As per Bill of Materials:

BILL OF MATERIALS

Sl. No.	Description	Quantity	UOM
1	Cat.No.- 08520211411 Fire Alarm Control Panel : Microprocessor based 7 loop analog addressable intelligent type main Fire Alarm Control Panel with Color LCD screen display, modular type, expandable minimum up-to10 loops and networkable, OPC, along with its configuration software and battery bank with charger. EN-54 & VDS/UL Approved.	02	Set
2	Cat.No.- 08520211412 Repeater Panel: Color LCD Screen Display Screen / 640 character LCD Display, networkable active Repeater Panel . EN-54 & VDS/UL Approved.	02	Nos.
3	Cat.No.-. 08520211413 Optical cum Thermal Detector: Intelligent Addressable Multi criteria Optical cum Thermal Detector with inbuilt fault isolator (those manufacture not having detectors with inbuilt isolator, must consider Isolator base / additional Isolator Module extra after five devices) and interchangeable detector base. EN-54 & VDS/UL Approved.	686	Nos.
4	Cat.No.- 08520211414 Optical cum Chemical Detector : Intelligent Addressable type, maintenance easy, Optical cum Chemical Detector with pollution sensor, detector with inbuilt fault isolator (those manufacture not having detectors with inbuilt isolator, must consider Isolator base / additional Isolator module extra after five devices) and interchangeable detector base. EN-54 & VDS/UL Approved.	12	Nos.
5	Cat.No.- 08520211415 Response Indicator	76	Nos.
6	Cat.No.- 08520211416 Break Glass Type Manual Call Point : Intelligent Addressable Break Glass Type Manual Call Point . EN-54 & VDS/UL Approved.	76	Nos.
7	Cat.No.- 08520211417 Sounder or Hooter : Addressable type loop powered /external powered Sounder or Hooter with multiple tone & programmable sound pressure level, in case hooter is not loop powered and addressable the cable for same is to be considered separately and additional Addressable Interface Module has to consider. EN-54 & VDS/UL Approved.	56	Nos.
8	Cat.No.- 08520211418 Control Relay Module : Addressable Control Relay Module for tripping of auxiliary unit like AHU, Dampers etc. EN-54 & VDS/UL Approved.	23	Nos.
9	Cat.No.- 08520211419 Monitor Module : Addressable type Monitor Module for monitoring of potential free contacts / resistances / impedances etc. EN-54 & VDS/UL Approved.	23	Nos.
10	Cat.No.- 08520211420 Heat Sensing Cable :	9,670	Mtrs.

	Digital Linear Heat Sensing Cable Fixed type.		
11	Cat.No.- 08520211421 Linear Heat DetectionUnit : Intelligent Addressable analogue Linear Heat DetectionUnit for digital heat sensing cable with inbuilt / external fault isolator module (those manufacture not having detection unit with inbuilt isolator, must consider Isolator base / additional Isolator module extra after each detection unit). EN-54 & VDS/UL Approved.	50	Nos.
12	Cat.No.- 08520211422 2C x 1.5 mm² Armored Copper Cable in the existing surface /recessed /tray as required.	6000	Mtrs.
13	Erection Hardware	As required	

Note :

1. The minimum no. of equipment to be supplied has been mentioned in BOM, however the vendor must assess the site for actual requirement of equipments for successful completion of the FDA System.
2. For the items not covered in the above Bill of Materials, the Bidder shall furnish the full details of such items that they proposes to offer with the details of the standards followed.

3. ERECTION AND COMMISSIONING :

- a. Erection, testing & commissioning of intelligent analog addressable Fire Detection and Alarm System comprising of Addressable Analogue Intelligent Detectors, Manual Call Points, Response Indicators, Fire Alarm Control Panel, Hooter and Accessories in designated areas.
- b. SMF Battery backup for 4 hours and float cum boost charger in – built to the panel.
- c. Laying of all types of cables & cabling accessories.
- d. Fixing of GI Pipes / GI Conduits and other accessories wherever required for laying of cables.
- e. Minor civil work required for installing fire alarm system equipment.
- f. Preparation of Design and detailed engineering drawings.
- g. Submission of operation and maintenance manuals.
- h. Submission of as built drawings.
- i. Earthing – Extension of nearest available power earth ring to the panel location and connecting the equipment's to the earth ring as per IE rules and safety guidelines.
- j. Provision of special earth for equipment electronics.
- k. Training of customer engineers on maintenance and operation aspect of system.

All items indicated against Fire Detection cum Alarm System shall be supplied by contractor as per approved drawings and contractor has to supply following Documents after successful commissioning of system:

- a. Operators Manual
- b. As - Built Drawings
- c. Technical Literature &Service manuals for various components.

Contractor will include training for Customer's personnel at site.

4. **ANNUAL MAINTENANCE CONTRACT :** Contractor has to include Non Comprehensive AMC of the system for Two Years after warranty period in the offer with Spares List that will be required for AMC Job.
- a. Deputation of at least one skilled manpower on regular basis, who will work under direct supervision of the contractor.
 - b. The spares for maintenance contract will be provided by the purchaser. A list of spares for Two Years shall be submitted along with the offer by the bidder.
 - c. AMC Contractor who is engaged in carrying out AMC shall bring his own tools and tackles, site testing equipment required for maintenance of equipment and system.

Fire Detection and Alarm equipment offered shall be complete in all respects and any equipment/ accessories not explicitly indicated in the Bill of materials, but considered essential for proper functioning of equipment and system shall be treated as included in the contractor's scope of supply and work.

Note: The technical specification of the system is given in Annex-IV.

TECHNICAL SPECIFICATIONS

These specifications together with the Bill of Materials & Quantity shall cover the Design, Supply, Erection, Testing, and Commissioning of State-of-Art Fire Detection and Alarm Systems.

1. **SYSTEM** : An integrated 32-bit Microprocessor based 7 loop modular, networkable intelligent addressable system (expandable up to min 10 loops or more), with each loop capable of handling at least 125 detectors and 125 devices in any combination with loop length of 300 m. The panel shall have LCD screen display capable of showing min. 640 characters.

EN-54 & VDS/UL Approved.

The system shall comprise of the following:

- a. Intelligent, addressable, two nos. inbuilt fault isolator Multi criteria detector, Spark/Ember type detector, heat detectors, and indoor manual call points.
- b. Digital Linear Heat sensing cable, addressable linear heat detector and interfacing modules for connection to Fire alarm panel.
- c. Microprocessor based fire alarm panel with necessary configuration software along with Battery and Battery charger.
- d. Bases of detector
- e. Response Indicator.
- f. Fire warning Hooter
- g. Cabling (including power & control) required for complete Fire Detection and Alarm System.
- h. Earthing of complete Fire Detection and Alarm System.
- i. Terminal boxes and junction boxes as required for complete fire alarm system.
- j. Accessories for mounting and supporting all equipment's covered in this specification.
- k. Audio hooters distributed over various areas to alert during fire for evacuation.
- l. Relay modules, necessary input/output module
- m. Any other items which are required to make the system complete in all respects and for satisfactory operation of the system.

2. **CODES AND STANDARDS** :

EN - 54 & VDS, UL

The CONTRACTOR shall be solely responsible for obtaining the required approval and clearances for the different components and systems of the fire detection and alarm system from the following authorities as applicable:

- a. Tariff Advisory Committee (TAC) of the Insurance Association of India
- b. Local Fire Authorities

3. DESIGN REQUIREMENTS

- a) Fire alarm system shall be designed to provide continuous surveillance against fire in the areas covered by the system under all conditions. The system should comply with NFPA 72 Style 7 requirement.
- b) The equipment shall be designed and manufactured in accordance with the best engineering practice and shall have proven for the services intended.
- c) The installation practices adopted for fire detection and alarm system shall be as per the relevant standards.
- d) The number of detectors, spacing and their locations shall comply with NFPA 72E / BS 5839 Part 1 / IS 2189. The actual quantity of detectors required, taking into consideration total area to be protected, type of building construction, air movement, air velocity, ceiling obstruction etc., so as to obtain complete coverage, shall be worked out by the Contractor based on the final drawings of the various buildings during detailed engineering.
- e) Analogue addressable type detectors & rate of rise of temperature detectors, linear heat sensing cables Manual call points etc. shall generally comply with standard requirements.

The automatic fire detectors shall be of analogue addressable type having the following features:

- i) Individual addressing capability at the fire alarm panel to facilitate precise pointing of fire location / detector activated.
 - ii) Discrimination between a false fire and real fire condition.
 - iii) Detection and automatic calibration / setting of over / under sensitive detector by decreasing or increasing their sensitivity levels.
 - iv) Pre-alarm in case of detector or a section of detectors requiring maintenance.
 - v) All types of addressable detectors / interface units shall be compatible with the fire alarm panel.
 - vi) The detectors shall have easy disassemble for cleaning and sealed sensor head to prevent entry of dust, dirt, insect's etc. to reduce nuisance alarms.
 - vii) The detectors shall provide auto addressing & physical address-setting by means of rotary / binary switches.
 - viii) The detectors shall be ceiling mounted type.
- f) The devices shall be looped together and then connected to the fire alarm panel. The address of each detector shall be indicated on the respective fire alarm panel. BIDDER shall furnish in the BID, the number of detectors in each loop and the number of loops in each panel. BIDDER shall furnish the areas covered in each loop. Optimization of cable quantities shall be considered while designing the system. The detectors shall be suitably distributed in each loop and connected to the MFAP (Main Fire Alarm Panel).
 - g) The detectors shall be suitable for testing from the fire alarm panel without operating any detector & firefighting system
 - h) Areas where two types of detectors are provided such as multi-sensor and linear heat sensor cables in cable galleries, both the type of detectors shall be suitably cross zoned such that fire is detected only when both types of detectors located in that area operate. Operation of any one of this type of detectors shall give an alarm.
 - i) Each detector shall be provided with an indicating lamp glowing steadily to indicate that it has operated which shall otherwise flash intermittently to indicate the healthy condition of the detector and sensing circuits.

- j) The detectors shall continually monitor any changes in sensitivity due to the environmental effects of dirt, smoke, temperature, etc. This information shall be stored in the processor and transferred to the loop controller.
- k) When the detectors are mounted below the false floor or in inaccessible position, response indicator for each of the detectors and test switch shall be mounted on a separate box, which shall be suitable for mounting on the wall. If the detectors are mounted above the false ceiling, response indicators with test switch shall be mounted directly below the detector (on the false roof).
- l) Smoke detectors shall be intelligent and addressable devices, and shall connect with two wires to one of the Fire Alarm Control Panel loops. The multi- criteria Optical Cum Thermal detector should have measure thermal conditions and an earliest detection of smoke with the optical smoke detectors. All sensor signals should analyze continuously by the internal evaluation electronics (Intelligent Signal Processing) and are linked with each other via an inbuilt microprocessor. The area covered by each smoke detector shall be as per EN – 54 & VDS / UL Approved.

Each detector shall have in built fault isolator units for highest fault tolerance or those manufacture not having with inbuilt isolator, must consider Isolator base / additional Isolator module extra after five detector.

The status LED should have easy viewing angle.

- m) Heat detectors shall be intelligent and addressable devices, and shall connect with two wires to one of the Fire Alarm Control Panel loops. The Heat detector should have measure Maximum thermal conditions and Rate of rise of heat at the occupancy. All sensor signals should analyze continuously by the internal evaluation electronics (Intelligent Signal Processing).The area covered by each smoke detector shall be as per EN – 54 & VDS / UL Approved. Each detector shall have in built fault isolator units for highest fault tolerance / those manufacture, not having Monitor Module with inbuilt isolator, must consider Isolator base / additional Isolator module extra after five detector.

The status LED should have easy viewing angle.

- n) Maintenance Easy Optical Cum Chemical Smoke Detectors shall be intelligent and addressable devices and shall connect with two wires to one of the Fire Alarm Control Panel loops. The Optical Cum Chemical Smoke Detectors should have an earliest detection of smoke with the optical smoke detectors and Carbon Mono-Oxide Sensors. All sensor signals should analyze continually by the internal evaluation electronics (Intelligent Signal Processing) and are inked with each other via an inbuilt microprocessor.

- i) The status LED should have easy viewing angle.

- ii) The area covered by each smoke detector shall be as per EN – 54 & VDS / UL Approved. Each detector shall have in built fault isolator units for highest fault tolerance.

- iii) The Optical Cum Chemical Smoke Detector (CO Detection Technology) should come with pollution sensor technology to intimate the FACP immediately for any kind of pollution.

4. LINEAR HEAT DETECTION SYSTEM (LHS) : Linear heat detection system shall be provided in Cable Galleries.

Linear heat detection system shall comprise digital LHS cables, interface units and necessary hardware required for installation.

5. MANUAL CALL POINTS : Each area shall be provided with a Manual Call Point and Hooter. The Manual Call Points shall be of the wall mounting or pedestal mounting type. Manual Call Points shall be so located that no person need travel more than 30m from any point within the premises in order to raise an alarm & preferably located near the exit. Required number of Response Indicators and Isolators shall be provided in each loop. Necessary Relay Modules to complete the scope shall be provided.

Manual call points shall be of Break Glass Type, which can be reset and reused.

6. FIRE ALARM CONTROL PANEL

Illuminate fire zone.

Active alarm warning devices

Operate internal fire sounder.

Devices shall be deactivated by operation of the "Silence Alarm" switch.

Reset of the controller, after the fire incident has been investigated, will be achieved by operation of the reset-switch.

The enclosures of panels shall be fabricated from sheet steel, minimum thickness 1.5 mm and shall be provided with a hinged lockable door protection to at least IP: 65 shall be provided. The fire alarm control panels shall comply with IS: 2189. Alarm panels shall, as a minimum requirement is equipped with the following:

- a. Mains supply "ON" Indicator.
- b. "FIRE" Indicator.
- c. "Fault" Indicator.
- d. Alarm indicator for each Loop.
- e. Alarm accepts push button to acknowledge fire alarm signals, silence external audible alarms.
- f. Reset facility to restore monitoring systems to the quiescent condition.
- g. Integral sealed battery and trickle battery charger.
- h. Termination for incoming and outgoing wiring systems.
- i. Suitable System fault indication both visual and audible.
- j. Integral power supply with battery stand by (suitable for 4 hour backup) as per IS: 2189.

The Addressable Fire Alarm Control Panel (FACP) shall be networkable type. FACP shall have its own microprocessor, software, memory and Touch Screen Display / 640 Character LCD Display.

The panel should be modular in nature and expandable from single loop to up to minimum 10 loops with each loop capable of up to 125 detectors & 125 devices in any combination.

Adequate ventilation and cooling arrangements shall be provided in the panel for heat dissipation.

7. **REPEATER PANEL** : Repeater panel shall repeat all group annunciation / alarms that appear on control room FACP and shall be located in two control rooms. The display and control functions provided at repeater shall be same as that of Main Panel. The unit shall be aesthetically designed, suitable for wall / structure mounting. The unit shall be designed for power supply and operating conditions, same as that of Main Panel.

8. CABLING SYSTEM :

- a. **CABLES** : Cables required for complete fire alarm system for interconnecting Fire Alarm Panels, Detectors, Manual Call Points, other field devices, Repeater Panel, etc., shall be 1100V grade, multi core, annealed, high conductivity stranded copper conductor, extruded PVC insulated, laid up inner sheathed, galvanized steel strip / wire armored, outer FRLS extruded PVC sheathed cable as per IS-1554-Part - I, 1988. The detector wiring shall be of CLASS A type.

The Contractor shall supply and install all cables required for looping between Detectors and Manual Call Points and wiring out of connections to a marshaling/junction box in each zone as required.

- b. **JUNCTION BOXES (JB)** : Junction boxes shall be fabricated out of 2.0 mm thick CRCA sheet steel & shall be hot dip galvanized. For outdoor installation, they shall be of cast iron type and provided with a canopy at the top.

Junction boxes for indoor installation shall have degree of protection of IP 54. All the junction boxes shall have a weeping hole at the bottom plate and provided with necessary double compression brass cable glands. Two earthing terminals suitable for terminating 8 SWG GI wire shall be provided. All structures required for mounting the JBs shall be included in bidder's scope.

c. CABLE INSTALLATION AND ACCESSORIES

The detector wiring shall be of CLASS A type.

- i. All detector loop cables shall normally be two core, multi stranded, annealed copper conductor, armored with PVC insulation, FRLS outer sheath as per IS- 1554 Part-1 and 10853 Part-53. Other specific requirement of detector cables, if any, shall be clearly mentioned by the Bidder. Power cables shall be 3 x 2.5 mm², Cu conductor, PVC/PVC cable conforming to IS 1554, Part-I.
- ii. All detector circuit cables shall be armored and inside premises the same shall be clamped to the wall / ceiling.
- iii. In general out-door cables shall be laid on cable trays/ trenches and shall be armored.
- iv. For road crossing GI Pipes shall be used, if owner provided Cable crossing are not in the vicinity.

Cables for /fire detection and alarm system shall be routed in a convenient route acceptable to customer and as per approved drawings. Cabling shall be done in a neat manner with clamps at regular intervals.

9. APPROVED MAKES

DETECTORS	:	HONEYWELL / EDWARDS / BOSCH / SIEMENS
FACP	:	SIEMENS / EDWARDS / BOSCH / HONEYWELL
DIGITAL LHD CABLE	:	KIDDE / PATOL / SYSTEM SENSORS
MANUAL CALL POINTS	:	SIEMENS / EDWARDS / BOSCH / HONEYWELL
CABLES FOR DETECTOR LOOP	:	FINOLEX / DELTON / INCAB / MEM
POWER CABLES	:	DELTON / HAVELLS / MEM / POLYCAB

10. DRAWINGS & DOCUMENTS

Following drawings/documents shall be submitted in six sets by the successful bidder along with the supply of equipment:

- a) General arrangement/System configuration drawing for Fire Detection and Alarm System.
- b) Wiring diagram for Fire Alarm Panel.
- c) Cable schedule routing drawing, cable termination details etc.
- d) Layout details of detectors and other field devices.
- e) Power supply scheme.
- f) Total power requirement.

11. AMC FOR A PERIOD OF TWO YEARS AFTER EXPIRY OF WARRANTY PERIOD

- a. The rate quoted shall be firm for the entire period of maintenance contract.
- b. AMC Contractor who is engaged in carrying out AMC shall bring his own tools and tackles, site testing equipment required for maintenance of equipment and system etc.
- c. AMC Contractor shall adhere to all statutory regulations and Accepted safety norms of the installation in maintenance of the equipment/ system.
- d. Bidder shall submit Bank Guarantee of **Rs.5,00,000.00** (Five Lakhs only) against successful execution maintenance contract to cover the two year AMC period.
- e. The spares for maintenance contract will be provided by the purchaser. A list of spares for Two Years shall be submitted along with the offer by the bidder.
- f. AMC Contractor shall be responsible for the safety of equipment/ system at no extra cost to the Purchaser.

SPECIAL TERMS & CONDITIONS:

1. GENERAL :

- a. The instruction to the contractor shall be read in conjunction with the General Terms & Conditions, Technical Specifications, Scope of Work described in separate formats and other supplementary documents detailing the work.
- b. Notwithstanding the sub divisions of the documents into various volumes and parts, every part of each shall be deemed to be complimentary and supplementary to each other.
- c. In case of any conflict/contradiction, the stringent shall prevail. However any contradiction either between various parts of the documents or in the content of the document itself, shall be a matter of clarification to be obtained by the contractor from the purchaser. The purchaser's decision shall be final and binding.
- d. It is assumed that the contractor had studied the specification and satisfied himself regarding the workability of the proposed system and takes full responsibility for the proper system design, best quality of material and workmanship, guaranteed operation and smooth performance of all the equipment and accessories.
- e. Any loss of plant and equipment after receipt at site due to imprudence, negligence and unsuitable treatment and handling shall have to be replaced by the contractor at his cost.
- f. Any existing services or other property if damaged or demolished during the course of execution either willfully or negligently, shall be re-erected by the contractor at his own cost.
- g. The contractor shall take all precautions against damages due to rains or other natural calamities and no liability shall be with the purchaser for any loss on this account.
- h. The approval of drawings and/or inspection by Purchaser and/or their authorized representative shall not absolve or relieve the Contractor from any of his obligation under the contract and they shall wholly and solely responsible for the satisfactory operation and guaranteed performance of the system.
- i. Any equipment/ material which in any way fails to meet the requirements of the specification will be rejected by the Purchaser and the equipment/material involved shall not be used under the contract. The contractor shall be required to promptly furnish new material at his cost without hampering the overall schedule of commissioning of the project.
- j. Any changes or difficulties which might be encountered during the execution of work or any other problems due to local working conditions which are not anticipated/included in the tender document shall fall under full obligations of the contractor. No claim on account of any ambiguity in any respect will be entertained after the placement of order by the Purchaser.
- k. All equipment supplied shall allow access to facilitate connecting up, inspection, maintenance, repair and operate satisfactorily under such variations of load, pressure and climatic conditions as may occur during working.
- l. All materials, dimensional standards, tolerances, process of manufacturing and testing procedures shall be in accordance with the latest revision of the Standard Codes specified in this Technical Specification. In case where such suitable Standards are not mentioned, any acceptable Indian/International Standards shall be adopted.
- m. The contractor shall supply as per the approved makes of equipment/supplies, as given in the relevant clauses of this specification. In case of any deviation from the approved list of vendors for bought out items, prior written approval shall be obtained by Contractor from the Purchaser. Purchaser reserves the right to refuse approval for additional makes.

- n. The items described in the specification is indicative and not exhaustive. The contractor shall provide all the equipment and material required for the fire protection system to complete in all respects.
- o. The contractor shall be responsible for completeness of supplies, work and services to make the system complete, operative and properly hooked up to the Purchaser's network. Any equipment and material not specifically mentioned in this Technical Specification, but required for safe, smooth and efficient operation and guaranteed performance of the fire protection system shall be deemed to be included under the scope of work of the Contractor.
- p. The contractor shall submit the Quality Assurance Plan containing the overall quality management and procedures which he proposes to follow for performing the work during various phases of execution.

2. STANDARDS AND REGULATIONS :

- a. The design and engineering, manufacture, installation and performance testing (including safety, earthing and other essential provisions) of equipment and accessories covered under this specification shall, in general, comply with the latest issue of :

Applicable Standards and Codes of Practices published by Bureau of Indian Standards.

Central Board of Irrigation and Power

Indian Electricity Act, 2003

Central Electricity Rules

Indian Electricity Rules

T.A.C. & N.F.P.A. Codes and Regulation

- b. Equipment and Accessories for which Indian Standards are not available shall be designed, manufactured and tested in accordance with the latest issues of recognized standards such as IES, BS, VDE, DIN, FOCLPC), UL etc.
- c. In case of conflict between applicable standards referred to in this part and the Technical Specifications given in various volumes of this specification, stringent shall govern to the extent of such difference.

- 3. **MAKE AND INTERCHANGEABILITY:** The make of major equipment shall be limited to preferred makes indicated under Technical Specifications.

4. INSTRUCTION MANUALS

Instruction manual shall give step by step procedure for:

- Erection, testing and commissioning
- Operation
- Maintenance, and
- Repair

Maintenance instruction shall include:

- Diagnostics trouble shooting/fault location charts
- Tests for checking of proper functioning

- 5. **DRAWINGS AND DOCUMENTS** : The contractor shall submit within 01 month of placement of order a comprehensive list of drawings to be submitted by him for Purchaser approval.

The contractor shall submit following as-built drawings/documents in 03 sets:

- All approved drawings/documents
- All test charts and inspection certificates in bound volumes.

- Licensed operating software for Fire Detection and alarm System.

- 6. TIME SCHEDULE:** The delivery and erection of all equipment and integrated systems shall be supplied and commissioned within 12 months from the date of issue of Order.
- 7. INSPECTION :** The contractor shall submit an inspection procedure for all items to be supplied by him within 8 weeks of placement of order. The inspection procedure shall be finalized and approved by the purchaser.

No equipment/part item shall be dispatched without provisional acceptance certificate and dispatch instructions issued by the purchaser.

All equipment, assemblies shall be shop tested as per relevant standards and test certificated to be submitted by the contractor. Purchaser's representative shall have the option to visit the place of manufacture for stage inspection. All equipment shall be inspected by the Purchaser before dispatch of the equipment as per specification and approved drawings. The contractor has to make all arrangements for providing the necessary tools, tackles and instruments for free of cost to carry out the inspection.

The contractor is to meet the inspection & testing requirements for the equipment coming under statutory regulations IE rules, Tariff Advisory Committee etc. and submit certificates and documents from appropriate authority to Inspecting Engineer for the same.

8. TEST CERTIFICATES

For each of the items being manufactured, following test certificates and documents in requisite copies shall be prepared and submitted to the Inspecting Engineer for scrutiny and records

Materials Identification & physical and chemical test certificates for all materials except IS: 2062 – 1992 and FG150 IS: 210 – 197 materials used in manufacture of the equipment.

9. SITE TESTS:

All the equipment shall be tested at site to know their condition and to prove suitability for required performance. The contractor shall be responsible for satisfactory working of complete integrated system and guaranteed performance.

10. All interested bidder will have to make a site survey of actual locations before submitting their offer.
11. The vendor must submit following documents along with the offer:
 - a. Technical write-up on the proposed system including all its components along with Manufacturer's catalog.
 - b. Certificate of approval – UL/VDS/EN-54
 - c. Technical specification of each component, units/sub-units and cables.
 - d. General arrangement and mounting details of all units/sub-units.
 - e. Single line configuration diagram of system showing detector and other field devices connection.
12. Vendor has to take prior drawing approval for above documents before starting of actual erection and commissioning process.
13. Any other material/accessories not mentioned in BOM but required for commissioning of the system shall be considered by vendor in their offer.
14. All the interested bidders must also submit a list of mandatory spares required to maintain the system for a period of two years after warranty period along with price list. The prices shall be valid for at least twelve months from the date of offer.
- 15. SUBLETTING OF CONTRACT:** The bidder may engage sub-contractor(s) for erection, commissioning & AMC work with prior approval from BPSCL. For this, the proposed subcontractor(s) should have adequate work experience along with their working personnel having adequate qualifications & job competence in the respective area. The subcontractor will work under the technical supervision and guidance of Contractor.

16. **PENALTY CLAUSE:**

a) **AMC:**

- i. The Contractor may be penalized upto Rs 1000/- per case for poor workmanship.
- ii. Delay in attending the job due to shortage of manpower may attract a penalty of Rs 500/- per case.
- iii. In case of short supply of manpower as indicated in Clause-4(a) of scope of work at Annexure – III; a penalty of Rs 100/- per man days will be charged in addition to proportionate wage.
- iv. Penalty for damage/loss: The recovery, in respect of any spare which is damaged due to negligence on the part of contractor, will be done at the rates as per mentioned in the price catalogue of equipment supplier/latest PO values or any other source plus BPSCL overheads @25%.

b). **SAFETY CLAUSE :** Without prejudice to the right conferred by the clause above for stoppage of work for violation of safety requirements, you shall be liable for penalties mentioned below:

- i. Upto Rs. 5000/- by DGM (safety)/Head of safety Engg. Department /Head of the Department where work is being done for 1st violation of safety norm, non use of PPEs(Personal Protective Equipments) like safety shoes, hand gloves, safety helmets, goggles etc as per work requirements by you or your workers. This condition is applicable in case of violations of Road Safety norms also.
- ii. Fine upto Rs. 20,000/- on 2nd Violation as mentioned in clause (i) above.
- iii. You shall be debarred for one year / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering order on 3rd violation as mentioned in clause no (i) above.
- iv. Fine upto Rs. 10,000/- for violation in use of Full Body Harness by you or your worker for working at height (above 1.8 meter from immediate floor).
- v. Fine Rs. 25,000/- (minimum) to Rs. 50,000/- (Maximum) for serious injuries and disabilities caused by violations as mentioned in Clause No. (i) and (iv) above.
- vi. Independent of the above, you shall be fined Rs. 1,00,000/- (1 Lakh) or more and debarred / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering the order in case any Fatal accident occurs due to violations as mentioned in Clause (i) and (iv) above.

COMMERCIAL BID

Commercial Terms & Conditions:

1. Price Basis:
2. Packing & Forwarding:
3. Excise Duty:
4. Sales Tax/VAT:
5. Freight:
6. Insurance:
7. Service Tax:
8. Delivery Schedule:
9. Payment Terms: A.) Supply Part:
B.) Service Part
10. Consignee:
 - a) **If Excise Duty is not applicable** - BPSCL, B.S. City - 827 001.
 - b) **If Excise Duty is applicable** - As per our internal arrangement for availing CENVAT Credit by BSL/SAIL; Purchase Order will be placed by BPSCL with consignee as “**DGM (Stores) / BSL** on account BPSCL” and the same should be written in the invoice of successful tenderer. All other activities will be carried out by BPSCL.
11. Registered with
(‘01’ NSIC/ ‘02’ SSI/ ‘03’ NSIC & SSI/ ‘04’ DGS&D/ ‘05’ None)
Proof for ‘01’ to ‘04’ attached: YES / NO
12. To be furnished
(a) Drawing, QAP and other documents within days of date of the Order for approval
13. Guaranteed Period:
 - a.) months from date of dispatch **OR**
 - b.) months from the date of commissioning whichever is earlier
 - c.) of running hours.
14. Security Deposit for AMC: **Rs. Five Lakh (5,00,000.00) in the form of BG**
15. Liquidated Damage: If the work is delayed beyond the contractual period, a penalty @ 1/2% of the contractual value of the delayed portion of job per week of delay, subject to a maximum limit of 5% of the entire contractual value, will be deducted from the final payment.
16. Validity of offer up to: Day Month Year

(Minimum for a period of **150 days** from the date of opening)

PRICE BID FORMAT

Special Instruction –

1. *In the event of a L1 Bidder backing out prior to placement of order, in addition to forfeiture of EMD the bidder should be suspended for a period of six months from the date of issue of suspension order*
2. *Breakup of quoted unit LC (Landed Cost) excluding service tax rate shall be submitted by the bidder. In case of refusal of bidder to submit price break up, the bidder shall be suspended for a period of six months from the date of issue of suspension order.*
3. **Price Basis- L1 bidder will be decided on LC/LCNC basis.**

Price Break Up Format	
Sl. No.	
A.	SUPPLY PART:
A.1	Basic Price
A.2	Packing & Forwarding
A.3	Excise Duty & Ed. Cess (<i>as applicable at the time of supply</i>)
A.4	Sales Tax (CST / VAT)
A.5	Freight
A.6	Insurance
A.7	Third Party Inspection charge
A.8	Any other tax or charges
A.9	TOTAL : A:(A1+A2+A3+A4+A5+A6+A7+A8)
B.	SERVICE PART:
B.1	Installation, Testing & Commissioning
B.2	Non – Comprehensive AMC
B.3	Service Tax
B.4	TOTAL :B: (B1+B2+B3)
C.	LC : A+B
D.	LCNC : C-A.3

Detailed Price Break-up :

Sl. No.	Description	Quantity	Unit Rate	Amount
	SUPPLY :			
1	Fire Alarm Control Panel	02 Sets		
2	LCD Screen Display Screen	02 nos.		
3	Optical cum Thermal Detector	686 nos.		

4	Optical cum Chemical Detector	12 nos.		
5	Response Indicator	76 nos.		
6	Manual Call Point	76 nos.		
7	Sounder or Hooter	56 nos.		
8	Control Relay Module	23 nos.		
9	Monitor Module	23 nos.		
10	Digital Linear Heat Sensing Cable	9,670 mtrs.		
11	Linear Heat Detection Unit	50 nos.		
12	2C x 1.5 mm ² Armored Copper	6000 mtrs.		
13	Erection Hardware	Set		
Total for Supply Part (A)				
B.	SERVICE :			
1	Installation, Testing & Commissioning	Set		
2	Non – Comprehensive AMC	2 Years		
Total for Service Part (B)				
Rupees only				

Signature with seal of tenderer

ANNEXURE - VIII

CHECKLIST TO BE FILLED BY CONTRACTOR EXCEPT REMARKS:- All documents which is require for fulfill the qualifying requirement/ Eligibility criteria are to be submitted along with tender in serial order (clearly mention page no.) and the tenderer must fill the checklist of Annexure-V

CHECKLIST 1- OF DOCUMENT SUBMITTED BY TENDERER

Sl.No.	Document	Submit/ Not Submitted	Page No.	Remarks by BPSCL
1.	Valid work order			
2.	Completion Certificate			
3.	Partnership/ Proprietor			
4.	EPF			
5.	ESI			
6.	Latest ITR			
7.	* Service Tax Regn. No.			
8.	Turnover/ PL Sheet			
*If the agency is not under the preview of service tax then please write Not applicable (N.A.).				
Total numbers of pages in Techno-commercial Bid				

CHECKLIST-2 [PLEASE TICK (√) THE ONE WHICH IS APPLICABLE AND CUT (X) ANOTHER]

1.	All document as per NIT and Checklist 1	Submitted () Not submitted ()
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DECLARATION OF TENDERER:-

I M/s hereby declare that to best of my knowledge, the information given in the checklist is correct and complete, if any mistake/ incorrect statement will be found then you have right to reject and cancel (my) tender/application without any notice. I also hereby declare that I have read the all terms and conditions of tender document carefully.

Signature of tenderer with seal

(To be submitted on Supplier's Letter Head)

Format for Acceptance of General Terms & Conditions, Commercial Terms and all other Terms of the Reverse Auction

We _____ (Contractor Name)
having registered office at _____ (Address)
agree to all the Commercial, General & other Terms & Conditions listed in the
NIT No. _____
dated _____
for the work of _____ (subject work) through Reverse Auction.

We confirm that we are in a position to do the job as per the scope of work given in NIT/RFQ. We agree to participate in the Reverse Auction and abide by the rules.

We nominate an executive, whose details are given below, to put the bids on our behalf.

The details of the person authorized to bid on our behalf is as follows.

Name & Designation :
E-mail ID :
Contact phone nos. :
Address :

(Signature & Seal)

Place :
Date :

Format for submitting last quoted prices*(To be submitted on Company Letter Head of the Bidder)***(To be sent within 30 mins of conclusion of the Reverse Auction)**

To,

mjunction services limited
 1st Floor, Tata Centre
 43, Jawaharlal Nehru Road
 Kolkata – 700 071

Fax: 033 – 2288 3279**Ref: Reverse Auction forfor Bokaro Power Supply Co. (P) Ltd. held on**

Reference above, we hereby confirm our Market wise last quoted prices in the Reverse Auction held on forfor Bokaro Power Supply Co. (P) Ltd., Bokaro Steel City.

Market No.	Last Quoted Price

We also confirm that we will submit item wise price break-up, within two working days from the date of Reverse Auction.

Signature :

Name :

Designation :

Date :

ENVIRONMENT, HEALTH AND SAFETY

EHS (Environment, Health and Safety) Clause for contracts where overall site is under BPSCL control

Contractor's Responsibilities

The contractor shall during the entire term of contract undertake to perform the following obligations relating to environment, health and safety:-

1. Ensure that your workforce is not exposed to asbestos or asbestos containing atmosphere.
2. Take suitable control measures to ensure that the workers are protected from dust emission.
3. Monitor and ensure that the working area is free from any toxic gas, vapour and fume. Take adequate measures to reduce level of concentration below permissible limit. Exposure to any particular toxic gas, vapour or fume shall not exceed the maximum permissible limit prescribed in local regulation for any particular period of time. Ensure adequate ventilation and no immediate danger to life and health of personnel working at site.
4. Ensure that there is no flammable atmosphere and uncontrolled fire hazard in and around the work place. In case it is required to work in flammable atmosphere, implement safe working procedure and suitable control measures in order to work safely.
5. Ensure that the workers are protected from excessive noise and heat. Take adequate measures to reduce noise/heat level below the permissible limit.
6. Ensure safe access and egress in and around work place. Ensure proper maintenance of Platforms, staircases, ramps etc. Special care and all safety measures should be taken while working at height. Roof work and access to roofs must not be undertaken without prior permit.
7. All Personal Protection Equipments supplied by the contractor should be of internationally recognized standards. All tools and tackles bought by the contractor for use during the contract period should have proper and valid certification by competent authority.
8. All lifting equipments, tools and accessories provided by BPSCL should be maintained and returned back in sound condition after the completion of contract period.
9. Ensure that the illumination in and around workplace and access areas are maintained properly. Make sure to switch off the light, fan and air conditioners after use.
10. The contractor must ensure that all machinery and equipments are provided with earth fault circuit breakers at all times when using electrical leads. Use of electrical tape for temporary repair is prohibited.
11. Guards and covers for equipments/machineries are to be provided where ever necessary.
12. Gas cylinders shall be securely stored, transported, identified and used in line with legislation and EHS requirements.
13. Fire extinguishers and other fire fighting equipments provided in different locations should never be misused.
14. Contractor must ensure optimum use of water with minimum wastage.
15. Contractor shall also ensure that the work area is kept clean, tidy, & free from debris. The contractor is also fully responsible for protection of ground and underground from pollution.
16. Identify and highlight potential hazards / risks existing.
17. Ensure suitable corrective actions are implemented for identified issues.
18. Provide adequate emergency and first-aid facilities and it should be available in all shifts.
19. All workers should be trained and communicated about the onsite emergency and evacuation plan.
20. All equipments and plant should be maintained in safe condition.
21. The Contractor and their Personnel admitted to site must conduct themselves in an orderly and safe manner and conform at all times to the EHS Requirements. Fighting, engaging in horseplay, being under the influence of or possessing alcohol or drugs, gambling, soliciting, stealing, immoral or otherwise undesirable conduct is not permitted and shall not be tolerated. Upon knowledge of such conduct, BPSCL shall exclude the concerned person from the site and take all other appropriate measures as deemed necessary. BPSCL reserves the right to perform random drug and alcohol tests.
22. The Contractor shall immediately notify BPSCL of any environmental incident, injury, illness, near-miss, unsafe condition or practice and any loss or damage to property, including incidents related to the Contractor Personnel. An investigation report assessing the root cause, corrective action, and preventative action shall be submitted by the Contractor to BPSCL within 24-hours of the incident's occurrence.