

Government of West Bengal
Irrigation & Waterways Directorate
Office of the Executive Engineer
Metropolitan Drainage Mechanical Division
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Memo No : 1047 / 2B-4

Dated 07.09.2021

NOTICE INVITING EXPRESSION OF INTEREST (EOI)
E.O.I. No WBIW/EE/MDMD/EOI-06 /2021-22

For

A. Different electrical spare for the purpose of framing USOR (Mech & Elect) under Irrigation & Waterways Department , Govt of West Bengal during the year 2021-22

B. General.

1. The Executive Engineer, Metropolitan Drainage Mechanical Division, Irrigation & Waterways Directorate, Government of West Bengal invites Expression of Interest (EOI) for the work” **Different electrical spare for the purpose of framing USOR (Mech & Elect) under Irrigation & Waterways Department , Govt of West Bengal during the year 2021-22”**
2. The Expression of Interest (EOI) is required to provide indicative values of items of tee bill of quantities as per schedule attached in order to have comparison of cost between various prospective bidders and for sanctioning of rates from the competent authority of this Department.
3. These Expression of Interest (EOI) are purely for estimation purpose and to know the present market rate and under no circumstance, It shall be construed as quotation for placing the supply order. For competitive bidding separate notice inviting Tender will be published.
4. Prospective bidders are kindly requested to include the following information with their offer.

Contact information sheet:-

- a. Full name and address of the company.
- b. Full name of main contact person.
- c. E-mail address.
- d. Telephone , FAX and m..... numbers.
- e. Company GSTIN number, MOU with OEM.
- f. Estimated times of delivery.
- g. Payment terms.
- h. Validity period of quotes.

5. Literature and brochures, including full technical data and specifications.
6. Prospective bidders are required to specifically highlight how their product and integration of those will meet the proposed requirements and specification set out in this document. And in case of non compliance they may propose their own solution.
7. Quotation may be submitted through any of the following methods.

By Speed Post/Courier

A. Terms and conditions.

1. The currency of the quotations will be Indian Rupee For destination.
2. Quotation may be submitted writer in 15 days from the date of publishing of the Notice in Paper.
3. Part citation in budgetary quotes by an OEM, authorized agent/ dealer shall not be construed that he is eligible in the bidding process to be called later on. His eligibility shall be checked as listed out in the bidding document and then only will be permitted to participate.

B. Quoted Bid Price in EOI – Enclosed as separate Annexure

EnClo: As Stated

- Note:-
1. The quotation should be FOR destination basis. Rates are to be quoted inclusive of GST and other applicable Taxes . Their rates should also be reflected in this section so as to arrive at a final figure.

Executive Engineer
Metropolitan Drainage Mechanical Division.

Memo No : 1047 /2B-4 /1(2)

Dated 07.09.2021

1. Copy submitted to the Chief Engineer(M&E), Mechanical & Electrical Circle, Kolkata for his kind information please.
2. Copy submitted to the Superintending Engineer, Mechanical & Electrical Circle, and Kolkata for his kind information please.

Executive Engineer
Metropolitan Drainage Mechanical Division.

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ANNEXURE-A
SUPPLY OF LT AND HT CABLES

1. SUPPLYING OF FOLLOWING XLPE INSULATED ALUMINUM CONDUCTOR UNARMORED CABLES OF 1.1KV GRADE AS PER IS 7098 (PART 1) 1988 WITH UP TO DATE AMENDMENTS. (Rate in Rs. Per)

Conductor cross section in SQ MM	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
1 CORE																
2 CORE																
3 CORE																
3.5 CORE																
4 CORE																

2. SUPPLYING OF FOLLOWING XLPE INSULATED ALUMINUM CONDUCTOR ARMORED CABLES OF 1.1KV GRADE AS PER IS 7098 (PART 1) 1988 WITH UP TO DATE AMENDMENTS. (Rate in Rs. Per)

Conductor cross section in SQ MM	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
1 CORE																
2 CORE																
3 CORE																
3.5 CORE																
4 CORE																

3. SUPPLYING OF FOLLOWING THREE CORE HT POWER CABLE WITH STRANDED COMPACTCIRCULAR ALUMINIUM CONDUCTOR, CONDUCTOR SCREEN WITH EXTRUDED SEMI CONDUCTINGCOMPOUND, XLPE INSULATED, INSULATION SCREENING WITH EXTRUDED SEMI CONDUCTING COMPOUND IN COMBINATION WITH COPPER TAPE, CORES LAID UP, INNERSHEATH OF PVC, GALVANISED STEEL FLAT STRIP ARMOURED, AND OVERALL PVC SHEATHED CABLE CONFORMING TO IS 7098 (PART-2) 2011 WITH UP TO DATE AMENDMENTS. (Rate in Rs. Per)

Cable Size in sq.mm	A2XFY						
	3.3 KV(UE)	6.6 KV(E)	6.6 KV(UE)/11 KV(E)	11 KV(UE)	22 KV(UE)	33 KV(E)	33 KV(UE)
35							
50							
70							
95							
120							
150							
185							
240							
300							
400							

ANNEXURE-B
LAYING OF HT CABLES

Item No	Description of Items	Unit	Rate(Rs)
1.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
1.1.1	Up to 120 sq. mm	Meter	
1.1.2	Above 120 sq. mm and up to 400 sq. mm	Meter	
1.2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
1.2.1	Up to 120 sq. mm	Meter	
1.2.2	Above 120 sq. mm and up to 400 sq. mm	Meter	
1.3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/HUME/ METAL pipe as required.		
1.3.1	Up to 120 sq. mm	Meter	
1.3.2	Above 120 sq. mm and up to 400 sq. mm	Meter	
1.4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.		
1.4.1	Up to 120 sq. mm	Meter	
1.4.2	Above 120 sq. mm and up to 400 sq. mm	Meter	

ANNEXURE-C
JOINTING & END TERMINATION OF HT CABLES

Item No	Description of Items	Unit	Rate(Rs)
1.0	Supplying and making indoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11KV grade as required :		
1.1	70 sq. mm	Each	
1.2	120 sq. mm	Each	
1.3	240 sq. mm	Each	
1.4	300 sq. mm	Each	
2.0	Supplying and making outdoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11KV grade as required :		
2.1	70 sq. mm	Each	
2.2	120 sq. mm	Each	
2.3	240 sq. mm	Each	
2.4	300 sq. mm	Each	
3.0	Supplying and making straight through cable jointing with cast resin compound, including ferrule and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
3.1	70 sq. mm	Each	
3.2	120 sq. mm	Each	
3.3	240 sq. mm	Each	
3.4	300 sq. mm	Each	
4.0	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
4.1	70 sq. mm	Each	
4.2	120 sq. mm	Each	
4.3	240 sq. mm	Each	
4.4	300 sq. mm	Each	
5.0	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
5.1	70 sq. mm	Each	
5.2	120 sq. mm	Each	
5.3	240 sq. mm	Each	
5.4	300 sq. mm	Each	
6.0	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
6.1	70 sq. mm	Each	
6.2	120 sq. mm	Each	
6.3	240 sq. mm	Each	
6.4	300 sq. mm	Each	

Item No	Description of Items	Unit	Rate(Rs)
7.0	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required :		
7.1	70 sq. mm	Each	
7.2	120 sq. mm	Each	
7.3	240 sq. mm	Each	
8.0	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required :		
8.1	70 sq. mm	Each	
8.2	120 sq. mm	Each	
8.3	240 sq. mm	Each	
9.0	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required :		
9.1	70 sq. mm	Each	
9.2	120 sq. mm	Each	
9.3	240 sq. mm	Each	

ANNEXURE-D
LT PANELS AND ACCESSORIES

Item No	Description of Items	Unit	Rate(Rs)
1	Supply, fixing, testing & commissioning wall/floor mounted LT panel primer coated with powder coated paint & provided with required gasket for dust/vermin proof with degree of protection IP42 suitable for 415Volt 3phase, 50 Hz, 4 wire system fabricated out of CRCA sheet up to 2 mm thick (1.6mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere , Volt , selector switches, frequency , phase indicating lamp, Energy complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required but excluding cost of busbar strips, Ampere , Volt , selector switch as per approved design & specification	Kg	
2	Supply and fixing of LT panel accessories of approved make in existing LT panel including connections etc. as required as per specification.		
2.1	Digital Ampere with CTs with selector switch	P.SET	
2.2	Digital Volt with selector switch & HRC fuse	P.SET	
2.3	Frequency	Each	
2.4	Copper bus bar strips with PVC sleeves	Kg	
2.5	Aluminium bus bar strips with PVC sleeves	Kg	
2.6	LED lamp indicator	Each	
3	Supplying and fixing of capacitor duty contactor of approved make in existing power factor/LT panel including connections etc. as required as per specification.		
3.1	Up to 3 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.2	For 5 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.3	For 8.5 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.4	For 10 kVAR 440V, 3Ph, 50Hz, Aux contact-1NO	Each	
3.5	For 12.5 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.6	For 15 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.7	For 20 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.8	For 25 KVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
3.9	For 30 kVAR 440V, 3Ph, 50Hz, Auxcontact-1NO	Each	
4.0	Supplying and fixing of APFC relay 1A/5 A site selectable, measurement of individual current and voltage harmonic (THD), capacitor failure indication, Inbuilt temperature sensor of approved make in existing power factor Panel including connections etc. as required as per specification as mentioned below :		
4.1	8 Step APFC relay (144 x 144mm)	Each	
4.2	Automatic power factor relay 12 Steps 230V 144 x 144mm	Each	
5.0	Supplying and fixing of CT 1A/5A as per site selectable busbar dimension of approved make in existing main panel for power factor Panel including connections etc. as required as per specification.		
6	Supplying and fixing of analog times switch for automatic ON - OFF streetlight of approved make in existing LT panel including connections etc. as required as per specification	each	
7	Supplying and fixing of contractor 2Pole rating 240/415V :for ON – OFF street light of approved make in existing LT panel including connections etc. as required as per specification		
7.1	20A	Each	
7.2	25A	Each	
7.3	40A	Each	

ANNEXURE-E
OERHEAD LINE POLES AND ACCESSORIES

Item No	Description of Items	Unit	Rate(Rs)
1	Supplying swaged and welded steel tubular pole of following specifications as per IS 2317: 1980)		
1.1	7 length, 62Kg, 410-SP-01	Each	
1.2	7 length, 73Kg, 410-SP-02	Each	
1.3	7 length, 85Kg, 410-SP-03	Each	
1.4	8 length, 70Kg, 410-SP-10	Each	
1.5	8 length, 83Kg, 410-SP-11	Each	
1.6	8 length, 97Kg, 410-SP-12	Each	
1.7	8 length, 101Kg, 410-SP-13	Each	
1.8	8 length, 111Kg, 410-SP-14	Each	
1.9	8 length, 119Kg, 410-SP-15	Each	
1.1	9 length, 78Kg, 410-SP-25	Each	
1.11	9 length, 92Kg, 410-SP-26	Each	
1.12	9 length, 108Kg, 410-SP-27	Each	
1.13	9 length, 113Kg, 410-SP-28	Each	
1.14	9 length, 125Kg, 410-SP-29	Each	
1.15	9 length, 133Kg, 410-SP-30	Each	
1.16	9 length, 147Kg, 410-SP-31	Each	
1.17	9 length, 154Kg, 410-SP-32	Each	
1.18	9 length, 164Kg, 410-SP-33	Each	
1.19	9 length, 133Kg, 410-SP-30	Each	
1.20	11 length, 140Kg, 410-SP-49	Each	
1.21	11 length, 147Kg, 410-SP-50	Each	
1.22	11 length, 164Kg, 410-SP-51	Each	
1.23	11 length, 175Kg, 410-SP-52	Each	
1.24	11 length, 183Kg, 410-SP-53	Each	
1.25	11 length, 194Kg, 410-SP-54	Each	
1.26	11 length, 227Kg, 410-SP-55	Each	
2.0	Supply of CI base plate	Each	
3.0	Supply of CI CAP	Each	
4.0	Supply of single arm bracket made of 40mm dia 1.0 meter long	Each	
5.0	Supply of double arm bracket made of 40mm dia 1.0 meter long	Each	
6.0	Supply of single arm bracket made of 40mm dia 1.5 meter long	Each	
7.0	Supply of double arm bracket made of 40mm dia 1.5meter long	Each	

ANNEXURE-F
LUMINARIES

Item No	Description of Items	Unit	Rate(Rs)
1	Supplying of following materials for street light maintenance and repair		
1.1	150W SON-Type tubular high pressure sodium vapor lamp	Each	
1.2	250W SON-Type tubular high pressure sodium vapor lamp	Each	
1.3	Ballast/control gear for 150W sodium vapor and metal halide lamps	Each	
1.4	Ballast/control gear for 250W sodium vapor and metal halide lamps	Each	
1.5	Ignitors suitable for 150/250/400W lamps	Each	
1.6	33 mfd condenser	Each	
1.7	40W fluorescent tube light 4 ft long	Each	
1.8	Copper ballast for 40W fluorescent tube	Each	
1.9	Starter for 40W fluorescent tube	Each	
1.1	PVC tape	Each	
2.0	Supply, fixing and testing of MH lamp single ended type ISI marked of approved make as required as per specification	Each	
2.1	70 Watt	Each	
2.2	150 Watt	Each	
2.3	250 Watt	Each	
2.4	400 Watt	Each	
3.0	Supply, fixing and testing of MH lamp double ended type ISI marked of approved make as required as per specification	Each	
3.1	70 Watt	Each	
3.2	150 Watt	Each	

ANNEXURE-G
SUPPLYING AND REPAIRING OF FANS

Item No	Description of Items	Unit	Rate(Rs)
1.0	Supplying of approved make ceiling fan (ISI marked) of following sizes having double ball bearing complete with standard down rod, canopy, hanging shackle, Aluminium blades, without regulator, A.C. 230-250 volts		
1.1	900mm sweep	Each	
1.2	1200 mm Sweep, with minimum air delivery 210 m ³ /min and service value ≥ 4.00 as per BEE..	Each	
1.3	1400 mm Sweep, minimum air delivery 245 m ³ /min and service value ≥ 4.10 as per BEE.	Each	
2.0	Supplying of approved make wall mounting fan oscillating type with base, blades, guard, speed regulator etc. AC 230-250 volts.		
	300mm sweep	Each	
	400mm sweep	Each	
3.0	Supplying of approved make cabin fan oscillating type with base, blades, guard, speed regulator etc. AC 230- 250 volts.		
	300mm sweep	Each	
4.0	Supplying of approved make exhaust fan heavy duty with mounting frame, blades AC 230-250.		
4.1	300mm sweep RPM 900 / 1400	Each	
4.2	380mm sweep RPM 900 /1400	Each	
4.3	450mm sweep RPM 900 / 1400	Each	
4.4	600mm sweep RPM 900	Each	
5.0	Supplying and testing of approved make Pedestal fan A.C. 230-250 volts with blades speed regulator 'pedestal etc duly wired with all necessary material complete as required		
5.1	400mm sweep	Each	
6	Taking down the ceiling 900/1200/1400 mm sweep (GEC/Crompton/Usha/Havells etc.) with necessary tools and tackles from Ceiling.	Each	
7	Opening the Ceiling Fan 900/1200/1400 mm sweep (GEC/Crompton/Usha/Havell's etc.) with necessary tools and tackles and testing, checking, servicing, overhauling including supplying 23/36 PVC Copper flexible wire up to length 1.0 Meter. And transportation charges etc. and re-fixing the ceiling fan on its original position.	Each	
8	Opening the Ceiling fan testing, checking and Re-winding by supplying super enamelled copper wire of appropriate gauge, minilex paper, mica sheet, changing the loops, overhauling, backing, varnishing, re-fitting and using and measuring r.p.m. for ceiling fan above 36" sweep up to 60" sweep.	Each	
9	Taking down the heavy duty exhaust fan (1 Phase/3 Phase) 23 cm. sweep to 60 cm. sweep with necessary tools and tackles and arrangement from top of the wall.	Each	
10	Opening the heavy duty following Exhaust fan/stand fan/cabin fan testing, checking, servicing and overhauling including supplying 1.5 sq.mm. PVC Copper flexible wire up to length 0.5 Meter. Including transportation charges etc. and refitting the same.		
10.1	Exhaust Fan/Stand Fan (24" or 60 cm. dia sweep)	Each	
10.2	Cabin Fan (16" or 40 cm. dia sweep)	Each	

Item No	Description of Items	Unit	Rate(Rs)
11	Opening the following Exhaust fan (1 Phase/3 Phase) /Stand Fan/Cabin Fan testing, checking, Re-winding by supplying super enamelled copper wire of appropriate gauge, minalex paper, mica sheet, changing the loops, overhauling, becking, varnishing, re-fitting and testing and measuring r.p.m. etc.		
11.1	1-Ph Exhaust Fan (24" or 60 cm dia sweep)	Each	
11.2	3-Ph Exhaust Fan (24" or 60 cm dia sweep)	Each	
11.3	Cabin Fan (16" or 40 cm. dia sweep)	Each	
12	Supplying following sizes bearing:		
12.1	Bearing No. 6201 (SKF or Equivalent)		
12.2	Bearing No. 6202 (SKF or Equivalent)		
12.3	Bearing No. 6203 (SKF or Equivalent)		
12.4	Bearing No. 6204 (SKF or Equivalent)		
13	Supplying following sizes Capacitor of 250V rating:		
13.1	2.5 MFD Capacitor (Universal Make or equivalent)	Each	
13.2	4 MFD Capacitor (Universal Make or equivalent)	Each	
13.3	6 MFD Capacitor (Universal Make or equivalent)	Each	
14	Supplying and fixing only 20 SWG MS Sheet Couler on wall with necessary nuts and bolts (6mm dia X 62 mm long) with necessary tools and tackles and arrangement for 24" or 60 cm sweep exhaust fan.	Each	
15	Painting of heavy duty Exhaust fan/Stand Fan/Cabin Fan in following sizes complete with 2 coats of paints with ready-mix paint/primer of approved make and brand including preparation of surface by sand paper/emery paper, cleaning etc. for receiving fresh coat of synthetic enamel paint.		
15.1	For 16" or 40 cm dia Cabin Fan	Each	
15.2	For 24" or 60 cm dia Exhaust Fan	Each	
15.3	For 24" or 60 cm dia Stand Fan	Each	

ANNEXURE-H
SERVICING AND MAINTENANCE OF AC MACHINES

Item No	Description of Items	Unit	Rate(Rs)
1	Comprehensive Annual Maintenance and servicing of Air conditioning machine of following ratings		
1.1	1.0 Ton split type	Per Year	
1.2	1.5 Ton split & Cassette type both		
1.3	2.0 Ton split & Cassette type both		
1.4	1.5 / 2 Ton Window Type		
1.5	7.5 / 5.5 Ton Duct Type		
2.0	Providing & Fixing of ISI marked (IS : 15778 - 2007) Rigid CPVC drain water piping 6 kg/ cm ² with fittings like elbow, socket, Tee etc& support with MS hanger on ceiling or recessed in wall with chasing & plastering with 6 mm thick closed cell elastomeric nitrile rubber insulation complete in all respect.		
	a) 20mm dia	Meter	
	b) 25mm dia	Meter	
3	Supply & fixing MS powder coated stand suitable for 1.0/1.5/ 2.0 Tr outdoor type of Split AC. All as per pre-approved by Engineer in charge.	Each	
4	Dismantling& shifting of window air conditioning unit 1.0TR/ 1.5TR/2TR capacity excluding fascia and cutting, welding complete work as required.	Each	
5	Dismantling & shifting, installation, testing & commissioning of split air conditioning unit 1.0TR/1.5TR/2TRcapacity including indoor / outdoor unit complete as required.	Each	
6	Supply, installation, testing & commissioning of suction/discharge copper pipe line in split air conditioning unit 1.0/1.5 TR/2 TR/3 TR capacity including brazing, nitrile rubber insulation 6/9mm thick class 'O', etc complete as required.		
6.1	Copper tube 1/4"	Meter	
6.2	Copper tube 3/8"	Meter	
6.3	Copper tube 1/2"	Meter	
6.4	Copper tube 5/8"	Meter	
7	Chemical servicing of window/split air conditioning unit 1TR/1.5TR/2TR/3TR capacity including cleaning of cooling & condensing units, filters, grills etc& all other parts oiling & greasing of fan motor, testing of A.C unit etc.	Each	
8	Gas charging (R410A/Eco Friendly Green Gas) of window/split air conditioning unit including flushing of cooling & condensing units with nitrogen gas & rectification of leakage, replacement of filter, flair nut etc. if any.		
8.1	1.0 TR	Each	
8.2	1.5 TR	Each	
8.3	2.0 TR	Each	

ANNEXURE-I
INTERCOM/EPABX

Item No	Description of Items	Unit	Rate(Rs)
1	Supply, installation, testing and commissioning of EPABX system consist, no. of extension, no of junction, no. of expandable eport, operating console, current on max. load with ISDN compatible of approved make and labor as required as per specifications.		
1.1	EPABX system consists of 16 nos. extensions, 8nos of junction & up to 64 nos. of expandable eport, with one operating console, 1.35 Amp max. current	Each	
1.2	EPABX system consists of 48 nos. extensions, 8nos of junction & up to 96 nos. of expandable eport, with one operating console, 2 Amp max. current	Each	
1.3	EPABX system consists of 64 nos. extensions, 16nos of junction & up to 128 nos. of expandable eport, with one operating console, 3Amp max. current	Each	
1.4	EPABX system consists of 128 nos. extensions, 24nos of junction & up to 512 nos. of expandable eport, with one operating console, 11Amp max. current	Each	
2	Supplying & fixing float cum boost charger for EPABX system of approved make with all necessary material as required as per specifications.		
2.1	10 Amp 48 V float cum boost charger	Each	
2.2	25 Amp 48 V float cum boost charger	Each	
2.3	50 Amp 48 V float cum boost charger	Each	
3	Supplying, fixing essential additional accessories to EPABX system of approved make with all necessary material as required as per specifications.		
3.1	EPABX E-1 card	Each	
3.2	R-2 TWT card	Each	
3.3	Hot standby card	Each	
3.4	EPABX-operator console	Each	
3.5	EPABX system digital phone with 2 line display (32 characters) with 8 programmable keys.	Each	
3.6	EPABX system line card to extend the number of line by 8.	Each	
3.7	EPABX system junction card to extend the number of Index by 4.	Each	
3.8	EPABX system junction card to extend the number of junction by 8.	Each	
3.9	EPABX system digital line card 8 line.	Each	
3.10	4 push button CLI phone.	Each	

ANNEXURE-J
ELECTRO-MECHANICAL HOISTING SYSTEM

Item No	Description of Items	Unit	Rate(Rs)
1	Supplying of 415 V, TPN double door motor control center with canopy head in 14 SWG sheet steel enclosure (size 600mm x 500mm x 250mm deep) complete with control 20 amps 4 pole MCB L&T / Siemens make control block reversible starter unit with mechanical interlock, 2 nos 25 amps 3 pole power contactor , 1 NO/1NC auxiliary contact block. LED type indicator lamp (L&T/Siemens) showing "Power On", "Hoist", "Lower", and "Trip" with 3 nos. push buttons with elements tripping mechanism with L&T / Siemens Make overload relay, 4A DP , MCB , 0 to 30A range am on the door cover with all electrical interconnection complete and fitting fixing the same on MS channel(32X40mm) iron base frame at suitable position including S&F of terminal blocks for outgoing connection to motor and limit switches including testing, checking and commissioning.	Job	
2	supplying and fitting fixing of Siemens /BCH limit switches for up & down both way stopping and operating clamp push fixed with fabricated angle iron frame for both up & down including fixing of U clamp with gate screw rod	Each	
3	Design, Supply, Installation, testing & Commissioning for 415/440V, IP: 65 protection Spot Power Distribution box of suitable size made of 14 SWG CRC sheet for Gantry crane operation and also providing local power(through 240V 20A plug socket) with necessary MCB, industrial power point socket, weatherproof ingress protection etc for powering the Gantry crane in long travel of 200Meter in equal interval. Electrical items to be fixed in this box:- 1. 415V, TPN MCB, 63A,L & T = 1 no 2. Power terminal block = 1 No. 3. 63A, 5 pin industrial connector (IP67) Havells make = 1 No. 4. 240V, 20A socket = 1 no. 5. 240V, 20A switch = 1 no.	Each	
4	Supplying of 25 Sq.mm, 3 core copper flexible PVC insulated trailing cablecables of 1.1KV grade as per IS 7098 (Part 1) 1988 with up to date amendments for supplying power to the Gantry crane.	Meter	
5	S&F vertical single mounting siren 2HP, 3ph, 400/440V, 2800 RPM, 50Hz, AC, 3.25KM audible range (Kheraj/any approved make) and S&F DOL starter, 2hp, 3ph, relay range 2.5-4A (L&T/any approved make), build CC block with bricks (2'x2'x3'), neatly finish and shed for siren by using angle iron (35mmx35mmx6mm), 8nos foundation bolts, GI sheets, wire mesh, hinge, lock key, welding etc. as required with necessary arrangements.	Each	

ANNEXURE-K
SERVICING AND MAINTENANCE OF HT EQUIPMENT

Item No	Description of Items	Unit	Rate(Rs)
1	Dehydration & filtration of power transformer oil of 2 nos. 11/0.433KV & 3 nos. HT OCB to raise the dielectric strength to the value specified in IS including submission of test result.	Per Ltr	
2	Taking out sample of oil and carrying out chemical test of oil in respect of its acidity test through reputed test house and submission of test result.	Per Test	
3	Taking out sample of oil from power/voltage transformer, OCB etc. & testing their dielectric strength according to specification and submission of test result.	Per Test	
4	Opening the transformer breather and refitting the same after changing the silica gel including the supply of necessary gasket and silica gel.	Job	
5	Servicing and overhauling of 400 AMPS/ 500 AMPS/ 630 AMPS /1250 Amps, 11KV/ 6.6 KV. V.C.B./ V.C.U. dismantling the rack from the housing, opening the components, necessary cleaning of the component, carbonised portion, changing of rubber gasket, defective parts, cleaning of all mechanism parts and lubricating the mechanism, opening of C.T. & P.T.S., busbar spout assembly cleaning the same and insulated properly by supply of C.T.C. etc. and refitting all the parts to its original position by making all relevant electrical connection, panel wiring etc. for satisfactory & operation.	Job	
6	Servicing and cleaning of 33 KV outdoor substation Al high level bus and low level bus cleaning all post insulator , after opening from support clamps, cleaning of petty spares like Ampere tape , nuts, bolts and spring etc. re-fixing the same after greasing as per direction of EIC .	Job	
7	Servicing, cleaning and testing, calibration of following relay (for 6 KV Panel/11 KV Panel)		
7.1	For Incomer Feeder: each relay set consists of following relays MICOM P11 - 1 NO. CGL 14N/C- 1 NO VAX31 - 1 NO, VAA-33-1NO VAMP-31 - 1 NO, VAJH-13-1NO	Set	
7.2	For motor protection: each relay set consists of following relays Motor protection relay - 1 NO. VAJH 13 - 1 NO.	Set	
8	Dismantling the 6KV HT motor after disconnection of the starter and rotor cable after opening bolts and nuts, with the help of overhead crane stacking the motor on wooden sleeper, with proper safety and care.	Job	
9	Checking the dismantled 6 KV HT 630 HP slipring motor for its stud & opening all insulation like glass tape, insulating packing etc. & changing the same with new washer & packing while assembling including completing the taping and re-varnishing. Checking also to be done for slip ring etc. and re-fitting the motor in its original position including connection and testing as per direction of E.I.C.	Job	

Item No	Description of Items	Unit	Rate(Rs)
10	Servicing and overhauling of 6 kv., H.T. OCB Complete with mechanical clutch & isolator unit by taking out transformer oil, opening all components (moving and fixed contacts) and checking all copper contacts and washing and cleaning of sludge, carbon etc. from drum by supplying carbon tetrachloride, emery cloth etc. pre-fitting the O.C.B. as per existing one incl. mechanical clutch & isolator unit, including re-filling transformer oil and re-fitting all contacts (both moving and fixed) and departmentally supplied contacts in place of damaged one upto satisfaction of EIC.	Job	
11	Dismantling and overhauling the drum controller starter by transferring the transformer oil in a suitable container, taking out all copper contacts, checking and adjusting all other contacts and cleaning properly by means of emery cloth, petrol or carbon tetrachloride and checking repairing other internal parts and wiring, re-fitting the same and re-filling the transformer oil after proper cleaning, after fixing of all contacts and renewing contacts and complete wiring (contacts will be supplied by the Department).	Set	
12	Taking out the P.T. (6 KV/110V) from 6 KV, HT switch gear and thorough cleaning, washing the interior portion with carbon tetachloride after taking out the transformer oil from P.T. and re-fitting the same after attaining the desired IR. valve and re-fitting, re-fixing the P.T. complete and testing including changing the defective P.T. as per direction of EIC (Transformer oil and P.T. will be supplied Departmentally).	Job	
13	Dismantling, repairing, overhauling and calibration of 6 KV/11 KV one no. earth fault relay and two no. over current relay of incomer panel and re-fitting the same after completion as per direction of E.I.C.	Job	
14	Dismantling, repairing, overhauling & calibration of C.T.M.M. Motor protection relay on out going (6 kv. Motor) panel and re-fitting the same after completion including testing as per direction of E.I.C.	Job	
15	Servicing and overhauling of 400 Amps, 250 MVA, 11 KV., H.T. O.C.B. by transferring the transformer oil to a container, dismantling the O.C.B. rack from the housing, opening all the components, necessary cleaning of the components, sludge including oil tank, changing of oil gasket, defective parts/operating mechanism and lubricating the mechanism, opening of C.T.& PTs, bush bar, spout assembly, cleaning the same and insulated properly by supply of resin compound and refitting all the parts to its original position by making all relevent electrical connection, panel wiring etc. for satisfactory operation.	Job	
16	Opening the transformer breather & refitting the same after changing the silica gel including supply of necessary gasket and silica gel.	Job	
17	Servicing and overhauling 1600 Amps A.C.B. after withdrawing the break from its track, complete servicing the breaker, cleaning, moving and fixed contacts and adjustment incl. mechanical lever, greasing, oiling etc. and disconnection of the armoured cable and cleaning the surface with carbon tetra chloride, marking cloth, emery papers and applying of petrolium jelly etc. to the socket terminals and taping with PVC tapes and re-connection of the same as per direction of E.I.C.	Job	
18	Servicing and overhauling of 400 Amps Fuse & Switch unit (SIEMENS Make) by opening and cleaning all the parts and mechanical operating assembly with carbon tetra chloride, markin cloth etc. lightening the cable connections, fitting and fixing the moving and fixed contacts etc. as per direction of E.I.C.	Job	

Item No	Description of Items	Unit	Rate(Rs)
19	Complete overhauling of ML - 12 Sart-Delta Starter (L&T Make) for 180 H.P. SIEMENS make driving motor, checking mechanical & electrical accessories including cleaning of all contacts by carbon tetra chloride and checking all incoming and outgoing connections.	Each	
20	Dismantling all the terminals of the motor control panel and checking all the sockets on both side of panel, starter and capacitor bank including tapping as required and re-connections of the motor starter terminals after servicing of the panel and complete testing as per direction of E.I.C.	Job	
21	Servicing and overhauling of 6 KV/11 KV. M.O.C.B/,O.C.B/Isolator by Transferring the transformer oil to a suitable container and checking all components, copper contacts and washing and cleaning all sludge, carbon from etc. by carbon tetra chloride, marking cloth etc. Upto satisfaction of EIC(transformer oil will be supplied Departmentally)	Each	
22	Calibration and testing and necessary replacing of the damage spares and repairing of the following relays. 1 No. under voltage 2 nos. over current 1 no. earth fault relay etc. for 11KV Gear	Each	
23	Servicing and overhauling the Automatic star delta starter for L&T make ML-10 after opening all components, electric Timer, bi-metal relay etc. & fitting fixing the same after same plate servicing and overhauling testing as required as per direction of EIC (Spares will be supplied by Deptt.)	Each	
24	Complete servicing and overhauling and necessary repairing of DTH 250 Amps MCCB (L&T Make).	Each	

ANNEXURE-L
SERVICING AND MAINTENANCE OF HT/LT MOTORS

Item No	Description of Items	Unit	Rate(Rs)
1	Preliminary checking of the whole motor and testing of I.R. value, load currents, leakage factor of stator & rotor, terminal lead joints of stator connection ends, insulation of glass fiber terminal bar, double cage rotor end rings and all of motor bars and bar joints, housing of D.E. & N.D.E shield bearing housing etc. before work to detect fault.	Job	
2	Complete servicing and heat varnishing of 135 H.P./100 KW 415Volt, 3 Phase KEC make Induction motor after cleaning the stator and heating it up periodically and varnishing by Dr. Beck's graded insulating varnish to obtain stable IR value, cleaning up the rotor, including heating for demosturisation, lacker coating on the surface of rotor stampings, cleaning and RO priming on the end shield covers, bearing housing and complete the necessary works as per direction of E.I.C.	Job	
3	Re-assembling the motor including placing the rotor into the stator, re-fixing the coil guard, D.E. & N.D.E. shield covers, connection leads, cable entry box, terminal box after completion of the repairing works.	Job	
4	Transportation charges of motor including loading and unloading of T & P at site to workshop and return to site by truck.	Job	
5	Positioning the motor from vertical to horizontal state by OH crane and manual labourer. Dismantling the motor by opening DE NDE shield covers, coil guard and taking out rotor from stator. Properly cleaning of the rotor including withdrawals of deposited Sulphur sludge moistures from all the end ring bar joints neatly. Brazing of the double cage rotor bars with end rings by high skilled mechanics with silver brazing article using silver brazing flux. Neatly surfacing of the newly brazed laminated rotor surface and installing the bar joints with Dr. Beak's graded insulations.	Job	
6	Complete servicing and heat varnishing of 100H.P./120 H.P, 415Volt, 3 Phase induction motor from 50 cusec pump after cleaning the stator and heating it up periodically and varnishing by Dr. Beck's graded insulating varnish to obtain stable IR value, cleaning up the rotor, including heating for demosturisation, lacker coating on the surface of rotor stampings, cleaning and RO priming on the end shield covers, bearing housing and complete the necessary repairing works as per direction of E.I.C.	Job	
7	Servicing & checking performance of of limit switches (rotary limit switch with 2 NO contact for main & aux. hoist and lever type shunt limit switch with 2 NC contact for LT & CT motion), contactors, relays, cleaning of contact points, checking tightness of terminals in panels, HRC fuses, pendant push button switches, overload relays, checking insulation resistance of all electrical items and replacement of damaged spares if necessary for smooth and trouble free operation.	Job	
8	Dismantling the 6 KV H.T. motor after disconnection of the stator and rotor cable after opening bolts and nuts with the help of overhead crane, stacking the motor on wooden sleeper with proper safety and care.	Job	
9	Checking the dismantled 6 KV H.T., 630 PS slip-ring motor from its stud and opening all of its connection like glass tape, insulating packing etc. and changing the same with new washer and packing while assembling including completing the taping and refurnishing, checking also to be done for slip-ring etc. and refitting in its original position including connection and testing as per direction and satisfaction of E.I.C.	Job	

Item No	Description of Items	Unit	Rate(Rs)
10	Heating the motor 75 HP including disengaging from pump side , cleaning , checking , greasing bearing including supplying labor , material etc. as required as per direction of E.I.C. and heating the motor (75 HP squirrel cage) by halogen lamp including covering by rag for proper heating to improve insulation resistance testing checking by 500 V meager as per direction of E.I.C.	Job	
11	Dismantling and overhauling the Drum Controller Starter by transferring the transformer oil in a suitable container, taking out all copper contacts, checking and adjusting all other contacts cleaning properly by means of emery cloth, petrol or carbon tetrachloride and checking repairing other internal parts and wiring, re-fitting the same and re-filling the transformer oil after proper cleaning and fixing of all contacts and renewing contacts and complete wiring.	Job	
12	OVERHAULING OF MOTOR Complete dismantling of 210KW motor, extraction of rotor from the stator, through cleaning, heating & varnishing of both stator & rotor, if necessary replacement of stud, bolts & nuts, replacement of space heater, re-assemble of motor, testing & painting of motor, checking the pre work & post work I.R. & P.I. value (Test certificate should be provided) Work should be completed in all respects up to the satisfaction of E.I.C.	Job	
13	RE-BRAZING OF ROTOR BARS Re-brazing of rotor bars at all joints between bars & both side rings. Work should be completed in all respects up to the satisfaction of E.I.C.	Job	
14	REPLACEMENT OF LINE INSULATOR (MOTOR) Supply & replacement of 3 Nos. line insulators. Work should be completed in all respects up to the satisfaction of E.I.C.	Job	
15	DYNAMIC BALANCING Trueness checking & dynamic balancing of rotor at rated speed. (Certificate is to be provided to Authority)	Job	
16	DRIVING END HOUSING Under cut of damaged DE side bearing housing portion, metal deposition on the undercut surface, machining, turning & polishing with proper tolerance according to the size of bearing outer. Work should be completed in all respects up to the satisfaction of E.I.C.	Job	

ANNEXURE-M
SERVICING AND OVERHAULING OF 33KV SUB-STATION EQUIPMENTS

Item No	Description of Items	Unit	Rate(Rs)
1	Preliminary checking, testing and overhauling of 33 KV M.O.C.B. reassembling the loose components, greasing where necessary, removing all dust and cleaning with carbon tetrachloride, painting where necessary including supplying and replacing petty spares, nuts, bolts, wire etc. as per direction of E.I.C.	Job	
2	Preliminary checking, testing servicing and overhauling of 415V. 3200 amps Air Circuit Breaker (L&T Make) complete re-assembling the loose components, inter connection properly, checking all instruments including all wornout/missing spares, screws, nuts, bolts, wires etc. greasing where necessary as per direction of E.I.C.	Job	
3	Preliminary checking, testing, servicing and overhauling of M.C.C.B. panel consisting of 13 nos. 200 amps M.C.C.B., 2 nos. 100 amps, M.C.C.B. re-assembling the loose components, making all interconnection, checking all instruments, including supplying all and replacing all wornout/missing petty spares, nuts, bolts etc. greasing and tapplings where necessary as per direction of E.I.C.	Job	
4	Servicing and overhauling the auto star-delta starter (Siemens Make) after opening all the components from its original position, checking the contractors, timer bi-metal relay etc. and fitting fixing the same in original position after completion of overhauling, testing, heating the timer etc. as required at site as per direction of E.I.C.	Set	
5	Servicing and overhauling of 250 A, fuse switch unit (Siemens Make) opening, cleaning all the parts and mechanical operation assembly with C.T.C. marking cloths etc. hightening the cable connection, fitting the moving and fixed contact etc.	Each	
6	Servicing, overhauling and cleaning of following 33-KV outdoor equipments cleaning the carbonized of knife contact, fixed contact, oiling and greasing for smooth operation including changing of petty spares, nuts, bolts springs etc.		
6.1	33 - KV gang operated isolator.	Set	
6.2	33-KV drop out fuse.	Set	
7	Servicing and cleaning of 33-KV outdoor sub-stations aluminium high level bus and low level bus cleaning all post insulator, after opening from support clamps, cleaning of petty spares like Ampere tape, nuts, bolts, spring etc. refixing the same after greasing as per direction of E.I.C.	Job	
8	Making necessary arrangement to improve insulation resistance of 3 phase induction motor (100 h.p) upto the value satisfying I.F rules & relevant I.S. code disengaging from pump including testing, checking insulation by appropriate Megger & re-engagement the motor with pump & complete the job as per direction of E.I.C	Job	

ANNEXURE-N
SUBMERSIBLE PUMPS

Item No	Description of Items	Unit	Rate(Rs)
1	Labor for checking, testing of DOL starter, cable and lifting the submersible pump motor 1Hp to 7.5 Hp with column pipes after disconnecting the plumbing and electrical connection with contractors own tools tackles and scaffolding/tripod stand arrangement, checking and testing submersible pump motor set and carrying it to section office as per direction of EIC.	Job	
2	Labor for lowering of submersible Pump Motor set after assembling of pump with motor and connecting with new/existing pipes lines incl. painting with two coats of anticorrosive paints with contractor's own tools and tackles and scaffolding/ tripod stand arrangement. After commissioning of pump motor set and reconnection of other plumbing and electrical lines.	Job	
3	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make		
3.1	2.5 sq.mm multi strand	Meter	
3.2	4.0 sq.mm multi strand	Meter	
3.3	6.0 sq.mm multi strand	Meter	
3.4	10 sq.mm multi strand	Meter	
4	Supplying and laying of approved make HDPE pipe as per IS:4984 and IS:14333 with latest amendment for installation of submersible pump with necessary connection, socket/couplings, tees, etc. as required (PE-63 & working pressure 6 kgf/sq cm)		
4.1	25 mm Outer Dia	Meter	
4.2	32 mm Outer Dia	Meter	
4.3	40 mm Outer Dia	Meter	
4.4	50 mm Outer Dia	Meter	
5	Supplying and laying of approved make stainless steel wire rope 6 mm thick complete with binding for support of pump and motor.	Meter	
6	Supply installation, testing and commissioning of approved make DOL starter 7.5 hp, 3 phase, 50 Hz, 415V, i/c single phase preventer, incoming MCB 32A 4P, 10KA , in outdoor type enclosure, connections, as required as per specifications.	Each	
7	Supplying & installation of pressure gauges with 15 mm dia brass check nut & capable of showing pressure reading from 0. to 30 kg.	Each	
8	Supplying & installation of approved make pressure switch with 15 mm dia brass check nut for automatic operation on required pressure including necessary wiring up to control panel.	Each	

ANNEXURE-O
TEMPORARY PORTABLE PUMPS

Item No	Description of Items	Unit	Rate(Rs)
1	Supply & installation of diesel operated surface dewatering self-priming pump in running condition with all necessary attachments complete in site on daily hire charge basis including transportation, loading & unloading, dismantling, lighting arrangement, temporary structure construction and all other incidental charges as per direction & satisfaction of E.I.C.	HP Day	
2	Operation of surface dewatering self-priming diesel driven pump with operator and helper round the clock as per requirement including all other incidental charges as required for smooth running of the same as per direction & up to the satisfaction of E.I.C. (Excluding POL supply) (up to maximum 5 nos pump in a site a range of 200 meter.)	Per Day Per Site	
3	Cost of consumable including supply of P.O.L for operation of Diesel driven pump of different capacity.	Hp Hr	
4	Installation of diesel operated surface dewatering self-priming pump (supplied by department) in running condition with all necessary attachments complete in site including transportation, loading & unloading, making temporary construction & lighting arrangement, dismantling, guarding of Govt. property alongwith all other incidental charges as per direction & satisfaction of E.I.C.	HP Day	
5	Operation of surface dewatering self-priming diesel driven pump (Departmental supply) with operator and helper round the clock as per requirement including all other incidental charges as required for smooth running of the same as per direction & up to the satisfaction of E.I.C.(Excluding POL supply) (up to maximum 5 nos pump in a site within a range of 200 meter.)	Per Day Per Site	
6	Cost of consumable including supply of P.O.L for operation of Diesel driven pump (Departmental supply) of different capacity.	Hp Hr	
7	Operation of electric motor driven surface dewatering self-priming pump with operator and helper round the clock as per requirement including guarding, running maintenance and all other incidental charges as required for smooth running of the same as per direction & satisfaction of E.I.C. for pump capacity ranging from 5 HP to 26 HP (up to maximum 5 nos pump in a site within a range of 200 meter.)	Per day Per site	
8	Supply & installation of motor operated surface dewatering pump in running condition with all necessary attachments complete in site on daily hire charge basis including transportation, loading & unloading & dismantling, making temporary construction & lighting arrangement and alongwith all other incidental charges as per direction & satisfaction of E.I.C.	Hp Day	

ANNEXURE-P
FIRE DETECTION AND ALARM SYSTEM

Item No	Description of Items	Unit	Rate(Rs)
1	Supplying, installation, testing and commissioning of microprocessor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices(including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history login the nonvolatile memory (EPROM), power supply unit (230± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories. The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch, approved make		
1.1	Two loop panel	Each	
1.2	Six loop panel	Each	
1.3	Eight loop panel	Each	
1.4	Ten loop panel	Each	
2.0	Supply , installation, testing and commissioning of intelligent analogue addressable Repeater panel compatible with the main fire alarm panel including the cost of mounting accessories complete as per specification as required . Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch	Each	
3.0	Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required. Make: Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch/ approved make.	Each	
4.0	Supply and installation of UL approved intelligent analogue addressable rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch	Each	
5.0	Supply and installation of UL approved intelligent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch	Each	
6.0	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alarm including the cost of mounting accessories etc. complete. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch, approved make	Each	
7.0	Supply, installation, testing and commissioning of Remote Indicator (RI) with dual LED for notification.	Each	
8.0	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch, approved make	Each	

Item No	Description of Items	Unit	Rate(Rs)
9.0	Supplying & laying of 2x1.5 sq.mm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required. Make : Finolex, Gloster, Mescab, approved make	Meter	
10	Supply, installing by fitting fixing & testing of JUNCTION BOX complete with check nuts, and terminal strips of highly reputed Indian manufacturers as per manufacturers manual and drawing to be vetted by EIC, complying to BIS code, Dept. of Fire & Emergency Services (DF&ES) guidelines and the Technical Specifications & Standards desired in the RFP to the satisfaction of the E.I.C.	Each	
11	Supply and Installation of Intelligent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete As required. Make : Honeywell (Notifier), Eaton, Edwards	Set	
	PUBLIC ADDRESS SYSTEM		
12	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required. Make : Honeywell (Notifier), Eaton, Edwards, Siemens, Bosch, approved make	Each	
13	Supply, installing by fitting fixing & testing of WALL / CEILING MOUNTED SPEAKER complete with all accessories (6 Watt) of highly reputed manufacturers as per manufacturers manual and drawing vetted by EIC, complying to BIS, Deptt. of Fire & Emergency Services (DF&ES) guidelines and the Technical Specifications & Standards desired in the RFP to the satisfaction of the E.I.C. Make : Ahuja/ Bosch/ Seimens/ approved make	Each	
14	Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required. Make : Ahuja/ Bosch/ Seimens/ approved make	Each	
15	Supplying, installation, testing & commissioning of Voice command keypad 6 zone, with microphone assembly complete as required. Make : Ahuja/ Bosch/ Seimens/ approved make	Each	
	CABLING & WIRING		
16	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required. Speaker cable Two pair, 2-core, 1.5 sq.mm	Meter	
17	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.		
17.1	Speaker cable Single pair, 2-core, 1.5 sq.mm.		
17.2	Speaker cable Two pair, 2-core, 1.5 sq.mm.		
17.3	Speaker cable Three pair, 2-core, 1.5 sq.mm.		
17.4	Speaker cable Four pair, 2-core, 1.5 sq.mm.		

ANNEXURE-Q
LED GLOW SIGN BOARD AND MAINTENANCE OF BATTERY CHARGER

Item No	Description of Items	Unit	Rate(Rs)
1	Supply and installation of Polyvinylidene Fluoride coated Aluminium Composite Panel board (3mm) of Aludecor /Alstone size (as per drawing)to be made such a manner that it can be opened towards up direction for taking maintenance.	Sq. ft	
2	S&F of Acrylic letter scripted in English/Bengali. size and matter of letter as per approved drawing by EIC, front side of the letter to be made 3mm thick imported (White-0.40) uv stabilized excellent to self display. Make-Acast, Mitsubishi, all letter will be raised to be fixed by special type of solution.	Sq. m	
3	S & F LED lamp incl. best quality LED lighting arrangement to be fixed by proper arrangement with complete connection. (1 module contain 3 nos LED, 0.5 W each)	Module	
4	S&F Water proof 350 watt power supply system IP65, 50/60Hz frequency, 108 to 305 VAC power supply, >.95 power factor for LED lamp. (Make : Meanwell/Groen)	Each	
5	26 Gauge Galvanized iron sheet for back panel with one coating of white paint, Make - Aarti / Bansal / Jindal	Sq. ft	
6	Cost of scaffolding charges for erection work in building.	Job	
7	Transportation charges for transportation of Sign Board from Contractor go down to work site.	Job	
8	Maintenance of charger:-The annual maintenance contract charge for 3 phase float & boost battery charger for 110v, 150AH battery bank but without spares. One job comprising of one charger scope of work:- 1. Preventive maintenance service will be provided once in the every month the scope of the service will be comprise of: a) Cleaning the charges b) Checking of all function of the charges c) Submitting the check list d) Carrying out any repairing job, if necessary 2. Breakdown service should be provided on receiving call from the E.I.C. within 24 hrs. 3. Service shall include immediate replacement and subsequent repairing of defective part and component expect transformer and choke and replacement of PCB	Job	
9	Maintenance of 110 volt Battery Bank:-Properly cleaning of the deposited carbon from end terminals and its tightening with lead at certain range and regular observing the level and specific gravity, maintaining the petroleum jelly at the terminal in the proper thickness and removing the old petroleum jelly from terminal of each battery, supply and pouring of distil-water whenever the level of distil water becomes below the minimum level and measurement of voltage resolution of each batter of 110 voltage acetate plate battery bank consisting 55 nos. Lead, each by employing 1 no. so electrician All observation records should be made in a register for each servicing day.	Job	