

MUNICIPAL CORPORATION KOTA NORTH (ELECT. DEPT.)

G – SCHEDULE

Estimate : No. 13/24-25

Amount : 38.92 Lakhs.

Earnest money : 77850/-

Tender cost : 2500/-

Name of work :- Electrification work at Jind Baba Garbage Transfer Station under Municipal Corporation Kota North.

Name & Address of Tenderer.....

S.No	BSR code	Particulars	Qty.	Rate	Per	Amount
1	72.5	<p>ELECTRICAL BSR 2023</p> <p>SITC of 11kV 630 Amps 21KA for 3 Sec. SF6 insulated, outdoor duty (IP54) , Extensible / Non extensible type Ring main unit (RMU) manually operated in combination of VCB modules and Load Break switch consisting of Copper busbar in SF6 insulated 304 (Non-Ferrite Non-Magnetic Grade) stainless steel enclosure of thickness 2.5mm with manometer. The HV switchgear and control gear should be confirming to IEC-62271-100, IEC-62271-200-2003 & IEC-60694- 1996. The RMU should be internal arc tested for 21KA for 1Second with IAC-AFL classification for gas tank. Vacuum Interrupter of VCB should be RMU Manufacturer's own make. Each feeder of RMU should have voltage presence indicator. . and comprising of followings:- 1 no. microprocessor based Self powered numerical relay with over Current/ earth fault & short circuit protection with each VCB feeder. - 3 Nos. Protection CT shall be of Burden 2.5VA, ratio 50/1A, Class of Accuracy class 5P10 for O/C and E/F protection for each VCB.- 1 No. Manometer for each tank,- 1 nos. Fault Passage indicator,- Right angle boots for all the feeder Modules All the type test certificates as per IEC from Third party NABL / CPRI / ERDA</p> <p>accredited lab to be submitted. (Cost of RCC Foundation / Steel Structure to be paid Extra) All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR</p>				
	72.5.2	Extensible 3 way RMU with 1 no. VCB & 2 No. Load Break Switch	1	477527.00	each	477527.00
2	72.2	<p>23.2 S I T C of star rated Aluminium wound distribution Transformer of following rating 11/0.433KV Delta-Star Connected, Vector Group Dyn 11,ONAN Cooled & as per BEE star - 1 & BIS approved as per IS 2026- 1977 & losses as defined as per 2014 (Fourth Revision) Level-1 . including standard accessories like conservator, silica gel breather, radiator, fins, HT cable box & LT cable boxes, temperature rise in winding/oil 35-40 degree C upto 200 KVA & 40-45 degree C for above 200 KVA, ISI marked drain valve, Dial type Temperature gauge, first filling of transformer oil as per IS :335-1953, Epoxy based paint, including carrying of pre-commission Testing & Charging of Transformer complete in all respect . The Transformer shall be subjected to routine factory tests (as per IS:2026 and IS:1180) including testing from CTL of discom before charging of transformer & complete installaion must be certified from Electrical Inspectorate office as per Indian Electricity rule, (CTL testing charges and Electrical Inspection charges shall be reimbursed by the department to the contractor). All as per pre approved by Engineer in charge.</p> <p>For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .</p>				
	72.2.1	63 KVA	1	202675.00	each	202675.00
3	62.1	<p>Providing & Laying XLPE insulated three core Armoured Aluminium cable for working voltage 11 K.V.(E) confirming IS :7098 P - 2 with H4- Grade electrolytic aluminium conductor confirming to IS: 8130 class-2 of purity >99.6 % , Insulation Screening: Extruded Semiconducting Compound followed by helically wrapped Copper Tape, round / flat strip armouring of cables , Inner / outer sheath PVC type ST-2 confirming to IS:5831 in existing RCC / Hume / Stoneware / PVC pipe/ open duct/cable trench / Cable tray including testing etc. as required of following size. OEM must have it's own in house NABL accredited Laboratory for testing procedure as per IS:10810 All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR</p>				
	62.1.4	3 core 185.0 Sq.mm	10	1952.00	mtr	19520.00
4	62.7	<p>Providing & making heat shrinkable type indoor/ outdoor/ straight through terminations/ joint kit suitable for 11 KV / 33 KV (Earthed) cable with required components, prepration of cable ends. Type test report should be as per IS13573:2011 which covered all sequence for table 2 for termination kit and table 3 for streight through joint inclusive thermal & dynamic short circuit test, humidity test, soil fog test. Cross linking shall be done out side factory with E- beam/ peroxide technology. Extrusion process shall be in house OEM within same vicinity. including testing etc. as required of following sizes. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .</p>				

	62.7.1.2	3 core 50/70/95 Sq.mm	4	4932.00	each	19728.00
	62.7.1.3	3 core 120/150/185 Sq.mm	2	6009.00	each	12018.00
5	62.1	Providing & Laying XLPE insulated three core Armoured Aluminium cable for working voltage 11 K.V.(E) confirming IS :7098 P - 2 with H4- Grade electrolytic aluminium conductor confirming to IS: 8130 class-2 of purity >99.6 %, Insulation Screening: Extruded Semiconducting Compound followed by helically wrapped Copper Tape, round / flat strip armouring of cables , Inner / outer sheath PVC type ST-2 confirming to IS:5831 in existing RCC / Hume / Stoneware / PVC pipe/ open duct/cable trench / Cable tray including testing etc. as required of following size. OEM must have it's own in house NABL accredited Laboratory for testing procedure as per IS:10810 All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	62.1.1	3 core 95.0 Sq.mm	270	1319.00	mtr	356130.00
6	60.1	Providing & Laying P.V.C. / XLPE insulated & P.V.C. sheathed Un-Armoured Aluminium cable confirming to IS:1554 P-I / IS :7098 P - I of 1.1 KV with H4- Grade electrolytic aluminium conductor confirming to IS 8130 of purity >99.6 %, Inner / outer sheath confirming to IS:5831 in existing RCC / Hume / Stoneware / PVC pipe/ open duct/cable trench / Cable tray (with cable tie) including testing etc. as required of following size. OEM must have it's own in house NABL accredited Laboratory for testing procedure as per IS:10810. For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	60.1.9	95.0 Sq. mm				
	60.1.9.2	3.5 core	30	732.00	mtr	21960.00
7	61.3	Supplying and making end termination with heavy aluminium lugs (Pin / ring type) confirming to IS 8309 -1993 & IS 8337-1976 duly crimped with crimping tool, PVC tape etc of following size.All as per pre approved by Engineer in charge. For additional technical parameters Annexure "A" attached with this BSR . of products/ work , refer Annexure "A" attached with this BSR .				
	61.3.11	95.0 Sq.mm	24	19.00	each	456.00
8	57.23	P & F of Automatic Transfer Switch (ATS) confirming to IEC60947-6-1, Utilization category AC-33B in Existing panel for automatic on load transfer between two source power supply of 415V through Solenoid/Motorised mechanism and integrated with three positions realize fast transfer within 100 ms. ATS shall have three postions (S1-OFF-S2) , Manual / Auto Override feature, The two sources can be isolated in the off position with a padlock. capability to expand with RS 485 communication module, which can ensure real-time transmission of communication data. ATS shall have automatic generator start & stop control function; Auxillary contacts to indicate mechanical positions. Minimum Electrical operations 6000, of following Current ratings, including making connections etc. as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.23.3	160 Amps	2	75125.00	each	150250.00
9	63.2	Plate Earthing as per IS:3043 with Hot dipped G.I. Earth plate of size 600mm x 600mm x 6.0mm by embodying 3 to 4 mtr. below the ground level with 20 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and Heavy duty weather proof poly-propylene earth pit chamber with lockable Jam free lid suitable for safe working load 5000 Kg or more of size Top Dia. 225 to 260 mm, Bottom Dia 300 to 350 mm. and Height 250 to 300 mm. and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance for value of 5 ohms or less as required & must record by engineer in charge during site visit and ensure to enter in measurment book.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .	13	5876.00	set	76388.00
10	58.3	SITC of 3 /4 pole current limiting Moulded case circuit breaker (MCCB) made of flame retardent & heat resistant material having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings , conforming to IS/IEC 60947 P -2 :2003 with front face and centralised adjustable, trip free mechanism, true contact position indicator, line load interchangeability, designed for both horizontal & vertical mounting without any adverse effect on electrical performance, suitable for operation upto 55 degree and without derating upto 40 degree, pollution degree 3, having positive isolation capability, push (test) to trip, trip time less then 10 ms under s/c condition, Breaking capacity Ics = 100% Icu. U imp =8 KV, rated insulation voltage 690 V. provision for UVR , shunt trip , earth fault trip, door interlock, pad lock & rotary handle , including making connections etc. as required.OEM shall have submit NABL / CPRI / ERDA accredited lab type test certificate before execution All as per pre approved by Engineer in charge. For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	58.3.1	3 pole MCCB With Thermal Magnetic release				
	58.3.1.7	250 Amp , 35 kA, adjustable O/L & adjustable S/C setting	1	16520.00	each	16520.00

11	70.12	Supply & fixing of GI pipes conforming to IS : 1239 P - 1 (2004) with flanges duly screwed & welded including rubber washer, nuts & bolts of 8mm dia complete in all respect.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	70.12.6	B class 100mm dia	20	1894.00	pmtr	37880.00
12	57.2	8.2 Supplying and fixing of Aluminium (IEC 60105 ISO 209-1,2) / Copper (IEC 60028) bus bar by means of SMC / DMC type insulator with standard short circuit withstand capacity , high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.2.1	Electrolytic grade Aluminium bus bar 6010 grade	20	556.00	kg	11120.00
13	57.11	Providing & Fixing of self healing IP20 MPP type shunt capacitor (banks) conforming to IS:13340-41 / IEC :831-1&2 OR IEC : 60831-1& 2 in existing panel or parallel with load terminals , the capacitor shall be fitted with discharge resistors, pressure sensitive disconnecter (PSD) and shall have dissipation factor less than 0.0025 at 50 Hz, Operating loss less than 0.30 Watt per KVAR. Min over current capacity 1.8 times rated current & peak inrush current min. 300 times of rated current, llife expectancy greater than 100000hrs (temp class - 25 D) in 440 V/480 V Capacitor and for 525 V should life expectancy minimum 1,65,000 hrs (temp class - 25 D) including making connections, testing etc. as required.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.11.1	Heavy duty Three phase 440 V, 50 Hz cylindrical type capacitor (Bank)	120	383.00	kvar	45960.00
14	58.3	SITC of 3 /4 pole current limiting Moulded case circuit breaker (MCCB) made of flame retardent & heat resistant material having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings , conforming to IS/IEC 60947 P -2 :2003 with front face and centralised adjustable, trip free mechanisum, true contact position indicator, line load interchangeability, designed for both horizontal & vertical mounting without any adverse effect on electrical performance, suitable for operation upto 55 degree and without derating upto 40 degree, pollution degree 3, having positive isolation capability, push (test) to trip, trip time less then 10 ms under s/c condition, Breaking capacity Ics = 100% Icu. U imp =8 KV, rated insulation voltage 690 V. provision for UVR , shunt trip , earth fault trip, door interlock, pad lock & rotary handle , including making connections etc. as required.OEM shall have submit NABL / CPRI / ERDA accredited lab type test certificate before execution All as per pre approved by Engineer in charge. For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	58.3.1.3	125 Amp , 35 kA, adjustable O/L & adjustable S/C setting	3	6547.00	each	19641.00
15	57.1	SITC of IP-42 and general construction confirming to IS:8623 : 1993, wall/ free standing floor mounted dust and vermin proof compartmentalised cubical panel as specifications and Other parameters required as per point (a) ,(b), (c),(d), (e), (f), (g), (h) as below:- (a) Thickness of CRCA sheet shall be 2.0 mm, cable alley compartments having concealed hinged type doors with key type lock with / without detachable extension type structure. Removable 3 mm. thick sheet steel gland plates with appropriate size of knockouts for cables shall be provided (b) complete panel shall undergo a process of degreasing, Water rinsing, Activation, derusting, pickling in acid bath, phosphatising & shall be subjected to nine tank process and then Powder coated with approved shade of minimum 70 microns on both side of panel. The panel having PE foam/ Neoprene rubber gasket of not less than 3mm thickness ,required hardware , concealed hinged door with key type locking arrangement for equipment/switchgear earthed with 2.5 sq.mm braided copper wire.				

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		<p>(c) Interconnection between bus bar and switchgears /cable shall be rigidly supported and made out by flexible copper wires (up to 63 amp) and by solid bus bar (>63 amp) . control wiring will be carried out with 1.5 Sq.mm, Earth wire with 2.5 Sq.mm and CT with 2.5 sq.mm flexible copper wire only. All joints / interconnections of copper bus bar shall be dully tinned . Clearance between main bus bar and risers / metal parts shall be at least 10 mm additional to width of bus bar Bus bar is insulated by Heat Shrinkable sleeves . Earth and Neutral bus bar shall be half of the size of phase bus bar. (Cost of Bus bar / Flexible wire for Interconnection between Main busbar and Switchgear is to be Paid Extra)</p> <p>(d) Wiring between components within switchgear and Incoming / outgoing cable shall be done through the terminal block only. Direct connection shall not be permitted. Each terminal block shall be one piece moulded, barrier type, 650 volt grade, complete with washers, heads, studs with two nuts and identification strips and shall have adequate continuous current rating. For tap-offs, adjacent terminals with shorting strips shall be used. 10% Spare terminal blocks shall be provided. Wire identification on marking strip shall correspond to the designation of the wiring diagrams. All wire terminals on the equipment shall also be marked with designation corresponding to those of the wiring diagram.</p> <p>(e) All wiring shall be enclosed in plastic channels and neatly bunched and closed in metering chamber, Wiring between terminals of various devices shall be 'point to point' (no wire splitting or tee connections) with wires neatly trucked along the back of the panels, adequately supported to prevent sagging.</p> <p>(f) Floor mounted panel shall be mounted on Base frame of ISMC channel size 100 x 50 x 5 mm (to be paid Extra)</p> <p>(g) Tests: The insulation resistance (with 1000 V Megger) and High voltage Power frequency test (by applying a voltage of 2.5KV for one minute) shall be measured between phases, between phase and neutral and between phase and earth. both before and after high voltage power frequency test. The insulation resistance shall not be less than three megaohm. CT Secondary current injection test shall also be carried out.</p> <p>(h) only outer surface area on all sides shall be measured & panel to be fabricated only from CPRI approved fabricator only (CPRI Test certificates to be submitted)All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .</p>	12	6124.00	sqmtr	73488.00
16	54.5	P & F paper phenolic resin bonded laminates confirming to IS : 2036 -1995 for boxes/ frames including making holes for switches etc, with brass screws, washers/ zinc plated nut and bolts as required. For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	54.5.4	9.0 mm thick	2	1679.00	sqm	3358.00
17	54.2	P & F in position frame made out of M.S. angle (riveted or welded) finished with two coats of red oxide and two coats enamel paint including cutting, welding, holes etc.of following sizes as required.For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	54.2.5	50mm x 50mm x 6mm	6	565.00	mtr	3390.00
18	61.3	Supplying and making end termination with heavy aluminium lugs (Pin / ring type) confirming to IS 8309 -1993 & IS 8337-1976 duly crimped with crimping tool, PVC tape etc of following size.All as per pre approved by Engineer in charge. For additional technical parameters Annexure "A" attached with this BSR . of products/ work , refer				
	61.3.14	185.0 Sq.mm	12	45.00	each	540.00
19	61.4	Supplying and making end termination with heavy duty Copper lugs (ANY type) confirming to IS 8337 -1976 duly crimped with crimping tool, PVC tape etc of following size.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	61.4.6	16.0 Sq.mm	25	13.00	each	325.00
20	63.6	Supply & Laying following size earth wire in horizontal or vertical run in ground/ surface/recess including riveting, soldering, saddles, making connection with GI/Cu purity purity >95% thimble etc. as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with thisBSR .				
	63.6.8	8 SWG G.I. (Hot Dipped) Wire	60	21.00	mtr	1260.00
21	72.20	Supply & fabrication steel structure with MS channel / angle / joist / ISMB / sheet etc. including welding, rivetting, cutting, nut & bolt , one coat of primer & two coat of enamel paint etc. as required complete in all respect. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .	200	138.00	kg	27600.00

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22	61.13	P / L of Double wall corrugated HDPE pipe conforming to IS : 16205 P-24, Stiffness Class 750 N, Externally corrugated and having smooth surface inside with HDPE Coupler, Elbow, Tee at required Depth below the ground for laying cable of following Nominal Outer dia. MFR Test report from NABL accredited is to be submitted. (Excavation of Earth & Back filling with compaction is to be Paid Extra)All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached withthis BSR .				
	61.13.5	110 mm	70	232.00	mtr	16240.00
23	58.3	SITC of 3 / 4 pole current limiting Moulded case circuit breaker (MCCB) made of flame retardant & heat resistant material having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings , conforming to IS/IEC 60947 P -2 :2003 with front face and centralised adjustable, trip free mechanism, true contact position indicator, line load interchangeability, designed for both horizontal & vertical mounting without any adverse effect on electrical performance, suitable for operation upto 55 degree and without derating upto 40 degree, pollution degree 3, having positive isolation capability, push (test) to trip, trip time less then 10 ms under s/c condition, Breaking capacity Ics = 100% Icu. U imp =8 KV, rated insulation voltage 690 V. provision for UVR , shunt trip , earth fault trip, door interlock, pad lock & rotary handle , including making connections etc. as required.OEM shall have submit NABL / CPRI / ERDA accredited lab type test certificate before execution All as per pre approved by Engineer in charge. For additional technical parameters of product / work refer Annexure 'A' attached with this BSR				
	58.3.1.4	160 Amp , 25 kA, adjustable O/L & adjustable S/C setting,	1	10210.00	each	10210.00
24	57.3	Providing & Fixing of IS: 13875 & IEC :61326 confirming LED Digital type (up to 500) V range Volt meter / Direct- Ammeter / CT oertated ammeter/ Frequency meter / KWH meter / Multi Function Meter / Power analyzer of class 1 accuracy as per IS : 1248 of size 96mm x 96 mm including making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.3.9	Three phase AMP + HZ + PF + KW + KVA + KVAR + KVARH+KWH+DUAL ENERGY+ ENERGY+THD-I, THD-V & RUN HRS	1	5372.00	each	5372.00
25	57.7	Providing & Fixing of Cam operated rotary (Auto/manual) switches on existing panel with 2 way and off position using high grade engineering material to international standards with cam assembly insulation of glass filled polyamide with high tracking index. For reliable and stable electrical and mechanical endurance double butt contacts with silver bi-metal on copper should provided . contact assembly is of operating temp range -25 degree C to 55 degree C, frequency upto 10 KHz. switch life under std. op. conditions shall be mechanically minimum 50000 operations @300 cycles/ hour and electrically 10,000 operations at 100% rated duty for 100 cycles/ hour including making connection etc. as required . All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.7.3	32 AMP	4	517.00	each	2068.00
26	57.8	Providing & Fixing of 110/220 V, unibody LED Indicating lamp IEC 60947 with integral circuit, IP 65 above panel & IP 20 terminal block, Approx. body dia for panel not less then 20 mm, length min. 50mm, front LED cover dia min. 29 mm, contact material phospher bronze for Led, PCB contacts shall be of brass (tin plated), impulse dielectric tested for 2.5 KV, Rated insulation resistance shall be 100 M ohm at 500VDC including connection etc. as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.8.1	Red/yellow/Green colour	2	174.00	each	348.00
	57.8.2	Blue / white Colour	1	267.00	each	267.00
27	57.15	Providing & Fixing of 440 Volt 3 pole capacitor (AC 6 B) duty contactor with 3 no. early make and post break auxiliary contacts in series with quick discharge damping resistors/ reactors to limit the inrush current as per PWD specification for electrical Works, IS/IEC 60947-4-1 : 2000, insulation voltage 1000V, impulse withstand voltage 8 KV,Din rail mounting type including making connections, testing etc. as required. suitable for following capacity capacitor bank. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.15.1	up to 6 KVAR	8	1858.00	each	14864.00
	57.15.3	10 KVAR	6	2334.00	each	14004.00
	57.15.4	12.5 KVAR	4	2362.00	each	9448.00



28	57.4	Providing & Fixing of BIS approved Current Transformer as per PWD specification for electrical Works ,ISI marked as per IS 2705-1992/ conforming to IEC 60044-1, with secondary terminal of CT shall be brought out suitable to a terminal block which shall be easier accessible for testing and terminal connection , with all necessary support in existing panel including connection etc. as required Current transformer Ring Type Tape Wound/Resin Cast Wound as per IS 16227 with, Accuracy Cl, CT ratio and burden as specified. ISF<=5, Cu cross section of secondary wire 1.5sqmm (minimum), including all necessary support in existing panel including connection etc. as required . All as per pre approved by Engineer in charge.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	57.4.1	8.4.1 Ring type tape wound CT				
	57.4.1.1	8.4.1.1 C T Class 1, Ratio upto 150/5, Burden 5 VA	4	629.00	each	2516.00
29	72.17	SITC of Radiator Cooled and Turbo charged Silent DG Set (As per latest CPCB emission norms) having specifications as per A, B, C, D, E, F,G,H & I A) 1500 RPM Diesel Engine conforming to BS:649/5514 of suitable BHP (up to 82.5 kVA 6 cylinder or Below required, 125 kVA & Above ratings 6 cylinder or above required) capable of taking 10% over loading for one hour after 12 hours of continuous operation., Dry exhaust manifold with Hospital grade silencer and catalytic convertor(isolated from main DG chamber), up to 3 M exhaust piping (with LRB insulation & Alum. cladding) as required . B) AC Brush less SPDP Alternator conform to BS 5000 (part 99) or IS/IEC 60034-1. . Alternator shall be self regulated with standard Alternator Protection(Over voltage , over speed & under voltage, under speed warning & shutdown).Engine & Alternator mounted on a common base Frame & coupled through a flexible coupling or close coupled C) CPCB / ARAI approved Standard canopy with Weatherproof, powdercoated Accoustic enclosure for DG set for sound attenuation fabricated from 1.6 mm CRCA sheet steel (structure) with sidewall fabricated from 1.6 mm CRCA sheet & filled with glasswool (96Kg/m3) / Foam. as per IS8183 the doors of 28/40/ 50/ 85mm thick as perrating and fabricated from 1.6mm CRCA sheet packed with accoustic material, All doors/opening are sealed with neoprene /EPDMaskets. The DG Set has Inbuilt / External in fuel tank to run 6 to 8 Hrs as per OEM standard, with protection and tripping of DG set against temperature of more than 50 degree centigrade. D) Electronic / Mechanical governor, Manual & electric Start ,Batteries with battry charger, Engine instruments panel,AVM pads All controls for operation of DG set are from outside the enclosure with DG control panel having Microprocessor based Genset monitoring like Running Hour, RPM, Low Lube Oil tripping & control system, Panel mounted MCCB/ACB of suitable rating, Ammeter, Voltmeter, PF meter, frequency meter, KWH meter,digital fuel display meter, Ind.lamps etc. mounted inside enclosure , visible and accessible from outside. The enclosure should be suitable for following capacity DG sets and alternator. Noise level shall be less than 75 dB at a distance of 1 Mtrs. duly certified by authorised agency etc. complete in all respect of following capacity : E) (i) Accoustic glass wool wall thickness should not be less then 40mm and not less then 20mm PU foam upto rating 100 KVA. (ii).Accoustic glass wool wall thickness should not be less then 65mm and not less then 50mm PU foam upto rating 250 KVA. (iii)Accoustic glass wool wall thickness should not be less then 100mm for rating above 250 KVA. F) First filling of the fuel tank shall be done by contractor and the prevailing fuel cost at that time shall be reimbursed to the contactor by department. G) Servicing Contract of DG Set from OEM's Authorised Service Dealer as per OEM guidelines during the DLP period shall be done by contractor including all consumables, actual charges shall be reimbursed to the contractor by End User Department. H) Manufacturer / OEM must have its authorized service dealer in Rajasthan. Which can provide service within 6 Hours of compalint registration. I) DG set will be offered for Inspection and Testing at Manufacturer's Works in presence of Departmental Engineers. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work , refer Annexure "A" attached with this BSR .				
	72.17.9	125 KVA at 0.8 pf 415V 50Hz 3-Ø	2	1099579.00	set	2199158.00

OS

30	57.13	Providing & Fixing of IP54 microprocessor based 3 CT's for all 3 phase sensing compensation power factor correction relay Size 139mm x 139 mm, Operating Voltage 415/440 V , IEC / EN 61000-6-(2&4) having 3 CT sensing, sensitivity up to 50 milli amp secondary current , self analysing auto c/k setting according to targeted power factor setting, the relay shall have digit display unit for display of real power factor, targeted power factor, lag/lead capacitor switching status, alarm output for under current, over current, insufficient compensation, communication interface with RS 485, indication of switching on units, auto/manual status, and shall have over load protection, no volt release , having multi parameter like KW, KVA, KVAR, RMS Value, step switching time 2 sec to 1800 sec. <i>Lead & Lag parameters, metering facility and 3 no. Class- 0.5 Cast Resin CT (refer CT specs in this chapter)</i> for sensing the relay including making coonnection with 1.5 Sq.mm copper wire etc. as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work ,refer Annexure "A" attached with this BSR .				
	57.13.2	12 to 14 stage	2	20115.00	each	40230.00
TOTAL						3892459.00
Terms & Conditions – Enclosed – 1 I/We here by Execute the above work. (i)% (above/below) in figures. (ii)% (above/below) in words. Signature of Tenderer						
Terms & Conditions – Enclosed –						

Signature of Tenderer


EXECUTIVE ENGINEER (ELECT.)
MUNICIPAL CORPORATION KOTA NORTH

शर्तः—

1. सशर्त निविदाएँ मान्य नहीं होगी।
2. निविदादाता/फार्म द्वारा निर्धारित निविदा शुल्क/प्रोसेसिंग शुल्क/धरोहर राशि/बैंकर्स चैक फर्म के नाम अथवा फर्म के मालिक के खाते से ऑन लाईन जमा की जावें। डी.डी./बैंकर्स चैक फर्म/फर्म के मालिक के खाते से ऑन लाईन जमा नहीं किये जाने की स्थिति में निविदा में अपात्र माना जावेगा।
3. निविदादाता/फर्म/श्रमिकों द्वारा कार्य अवधि में किसी भी कारण से हड़ताल/कार्य बाधित होने से जनसुविधा के कार्य में बाधा उत्पन्न होने पर निगम द्वारा संबंधित निविदादाता/फर्म को आगामी एक वर्ष के लिए निगम द्वारा जारी किसी भी प्रकार की निविदा में भाग लेने की पात्रता समाप्त कर दी जावेगी।
4. ई-बोली प्रपत्र दो भागों में है। प्रथम तकनीकी बिड है तथा द्वितीय भाग वित्तीय बिड है। बोली दाता द्वारा तकनीकी बिड हेतु यह प्रपत्र मय संलग्न व वांछनीय दस्तावेज के प्रत्येक पृष्ठ पर हस्ताक्षर करते हुये (मय सील) eproc पोर्टल पर अपलोड करनी है। वित्तीय बिड ऑनलाईन BOQ में ही प्रस्तुत की जानी है। इससे भिन्न रूप में प्रस्तुत प्रस्तावों पर विचार नहीं किया जाएगा। वित्तीय दर वाला बिड डॉक्यूमेन्ट केवल उन्ही फर्मों का खोला जायेगा, जिन्हे कमेटी द्वारा तकनीकी बिड डॉक्यूमेन्ट में योग्य समझा जायेगा।
5. निविदादाता निविदा राशि की 2.00 प्रतिशत अमानत राशि जमा कराना अनिवार्य होगा। प्रतिभूति घोषणा पत्र को हर्डकॉपी फर्म द्वारा निर्धारित समय, दिनांक पर कार्यालय में जमा करानी होगी।
6. संवेदक को किसी भी राजकीय संस्था विभाग, बोर्ड, कॉर्पोरेशन अथवा उपक्रम में वर्तमान में ब्लैक-लिस्टेड/डी-बार अथवा डिफाल्टर घोषित नहीं किया होना चाहिए, इस संबंध में 100 रुपये के नॉन ज्यूडिशियल स्टाम्प पैपर पर नोटरी से प्रमाणित शपथ-पत्र निविदा के साथ संलग्न किया जाना आवश्यक है।
7. संवेदक का किसी भी सरकारी/अर्द्धसरकारी विभागों में E - 1/EWSD - 1 में पंजीकृत होना अनिवार्य है।
8. संवेदक का इलेक्ट्रिकल इन्सपेक्टर राजस्थान सरकार द्वारा जारी A class लाइसेन्सधारी होना अनिवार्य है।
9. संवेदक द्वारा लगाये गये ट्रांसफार्मर का CTL test करा प्रति इस कार्यालय को उपलब्ध करानी होगी। जिसका अलग से कोई भुगतान देय नहीं होगा।
10. संवेदक द्वारा किये गये कार्य का इलेक्ट्रिकल इन्सपेक्टर से निरीक्षण करा संतोषप्रद निरीक्षण रिपोर्ट इस कार्यालय को उपलब्ध करानी होगी, तत्पश्चात् ही भुगतान किया जावेगा।
11. उक्त कार्य KEDL/JVVNL के सुपरविजन में सम्पादित होगा। सुपरविजन चार्ज निगम द्वारा नियमानुसार डिस्कॉम को देय होगा।
12. संवेदक द्वारा लगाये जाने वाले ट्रांसफार्मर, RMU, DG इत्यादि RUIDP SOR 2023 में वर्णित Specification अनुसार होना अनिवार्य है प्रमाण स्वरूप संवेदक को इस आशय के टेस्ट सर्टिफिकेट उपलब्ध कराने होंगे।
13. संवेदक/फर्म का PF एवं ESI में पंजीयन होना आवश्यक है।
14. PAN एवं GST नं0 पंजीयन अनिवार्य।
15. सम्पूर्ण कार्य की दोष निवारण अवधि 2 वर्ष रहेगी।
16. इस प्रकार के कार्य में प्रशिक्षित कर्मचारी ही कार्य हेतु लगाने होंगे। आप द्वारा कार्य पर नियोजित कर्मचारियों के समस्त विधिक क्षतिपूर्ति/दुर्घटना संबंधी दायित्वों के प्रति आप स्वयं उत्तरदायी होंगे। श्रम नियम, कामगार क्षतिपूर्ति अधिनियम वेतन भुगतान अधिनियम प्रावधायी निधि/बीमा योजना संबंधी सभी दायित्व आपके होंगे। नगर निगम कोटा आप द्वारा नियुक्त कर्मचारियों के प्रति किसी भी दायित्व के लिये उत्तरदायी नहीं होंगे।
17. संवेदक को किसी भी सरकारी व अर्द्ध सरकारी विभागों में निविदा राशि के 33% राशि के बराबर राशि का विद्युतीकरण कार्य का अनुभव होना अनिवार्य है। (एकल कार्यादेश एवं अनुभव प्रमाण पत्र संलग्न करें)
18. संवेदक को कार्य किये जाने हेतु LOA जारी होने के पश्चात् 1 माह में पूर्ण करना होगा। कार्य में विलम्ब होने पर नियमानुसार शास्ती आरोपित की जावेगी।
19. संवेदक को निविदा में मांगे गये दस्तावेजों की पूर्ति कर लगाया जाना आवश्यक होगा। यदि मांगे गये दस्तावेजों की पूर्ति नहीं किये जाने पर उस फर्म को असफल माना जावेगा।

20. निविदादाता विफल रहा है के मूल्य की निम्नानुसार प्रतिशत के आधार पर वसूली की जावेगी।

- विहित परिदान कालावधि की एक चौथाई कालावधि तक विलम्ब 2.50 प्रतिशत
- विहित कालावधि से एक चौथाई से अधिक किन्तु आधी से अनाधिक कालावधि तक विलम्ब 5.00 प्रतिशत
- विहित कालावधि के आधे से किन्तु तीन चौथाई तक की कालावधि का विलम्ब 7.50 प्रतिशत
- विहित कालावधि के तीन चौथाई से अधिक की कालावधि का विलम्ब 10.00 प्रतिशत
- निर्धारित नुकसान की अधिकतम रकम 10.00 प्रतिशत

21. स्वीकृत निविदादाता को निविदा की शर्तों की पूर्ण पालना करनी होगी। शर्तों की अवहेलना/खराब सामान आपूर्ति करने पर तथा विलम्ब पर नियमानुसार कार्यवाही कर नुकसान को वसूलने का नगर निगम को पूर्ण अधिकार होगा। ऐसे मामलों में फर्म के दोषी पाये जाने पर स्वीकृति निरस्त कर पुनः निविदा आमंत्रित की जा सकेगी। नई फर्म को निविदा द्वारा कार्यादेश दिये जाने तक नगर निगम कोटा ठेकेदार की रिस्क व कोस्ट के आधार पर किसी अन्य (निविदा में भाग लेने वाली) फर्म से कार्य कराया जा सकेगा, जिसकी कटौती ठेकेदार से की जावेगी।

22. किसी भी निविदा को बिना कारण बताये अस्वीकृत करने का पूर्ण अधिकार नगर निगम को होगा।

23. सफल निविदादाता को सामग्री/सेवाओं की टेण्डर राशि की 5 प्रतिशत राशि सिक्योरिटी डिपोजिट के रूप में रखी जायेगी। इसमें अमानत राशि को समायोजित करते हुए, शेष राशि ठेकेदार को जमा करानी होगी। यह निविदा अवधि तक नगर निगम कोष में जमा रहेगी। इस पर किसी भी प्रकार का ब्याज देय नहीं होगा।

24. सफल निविदादाता को नियमानुसार निर्धारित राशि के नॉन ज्यूडिशियल स्टाम्प पेपर पर नगर निगम के तहत् शर्तों की पालना के संबंध में एक संविदा पत्र लिखना होगा, जिस पर दो गवाहों के हस्ताक्षर होंगे।

25. निविदा की शर्तों में किसी भी प्रकार का परिवर्तन/परिवर्धन करने का अधिकार आपसी सहमति से नगर निगम को होगा। लेकिन यह निविदा प्रस्तुत करने की तारीख से पूर्ण होना चाहिए तथा निविदा के कुल समय का 50 प्रतिशत समय से पूर्व अपलोड होना चाहिए।

26. निविदादाता द्वारा दी जाने वाली दरें सभी कर सहित होगी।

27. फर्म के बिलों से नियमानुसार आयकर कटौती भुगतान करते समय की जावेगी।

28. यदि निविदादाता किसी कार्यादेश की पूर्ति समय पर नहीं कर पावे अथवा आदेशों की अवहेलना करता है या आदेशों को लेने से मना करता है, तो 5000/- रूपये प्रतिदिन की दर से जूर्माना आगामी होने वाले भुगतान राशि में से काटा जावेगा।

29. कार्य की आवश्यकता को देखते हुए दूरभाष पर भी आदेश दिये जा सकेंगे जो ठेकेदार को मान्य होंगे। इसकी पुष्टि में बाद में आदेश जारी किये जा सकेंगे।

30. निविदादाता द्वारा दरें निकटतम रूपये एवं पैसों में दी जावेगी।

31. ठेकेदार के ठेके को निरस्त करने की अवस्था में नगर निगम द्वारा उचित समझे जाने पर निविदा में भाग लेने वाली अन्य फर्मों से प्रथम निविदादाता (वर्तमान ठेकेदार) की अनुमोदित दरों पर कार्य करने की सहमति लेकर कार्य कराया जा सकेगा, जो शेष अवधि के लिए होगा।

32. सिविल विवाद की स्थिति में स्थानीय सिविल न्यायालय को ही क्षेत्राधिकार होगा।

33. संतोषजनक कार्य नहीं होने की स्थिति में अनुबंध को किसी भी समय निरस्त किया जा सकता है तथा प्रतिभूति राशि जब्त कर ली जायेगी।

34. निविदादाता द्वारा किसी भी आईट्म की दर प्रस्तुत नहीं करने पर निविदा को अपूर्ण मानकर निरस्त कर दिया जायेगा।

35. दर संविदा हेतु किसी भी निविदादाता द्वारा अस्पष्ट एवं अव्यावहारिक दरें दी जाती है, तो उसकी निविदा निरस्त कर अमानत राशि जब्त कर ली जावेगी।

36. यदि किसी निविदादाता द्वारा टेण्डर की राशि से कम दर भरी जाती है तो सफल निविदादाता को एल.ओ.ए. (स्वीकृति पत्र) जारी किये जाने के 14 दिवस के अन्दर अन्तर की राशि बीजी/एफडीआर/एनएससी के रूप में नगर निगम में जमा करानी होगी। कार्य संतोषप्रद पूर्ण होने के पश्चात् वापस लौटा दी जावेगी।
37. निविदादाता द्वारा निविदा प्रपत्र तथा एनेक्सचर A, B & C को स्वयं हस्ताक्षर कर स्कैन करके www.eproc.rajasthan.gov.in पर अपलोड करने पर ही निविदा को मान्य किया जावेगा। अन्यथा निविदा निरस्त कर दी जावेगी।
38. निविदादाता दरों की वैधता अवधि खोले जाने की दिनांक से 90 दिवस तक अनुमोदन हेतु मान्य होगी।
39. कार्य सावधानी से करना होगा, जनरेटर के कनेक्शनों एवं खुले/नंगे तारों पर टेपिंग आदि समुचित प्रकार से करनी होगी ताकि दुर्घटना से बचा जा सकें। टेपिंग समुचित नहीं किये जाने पर नियमानुसार शास्ति आरोपित की जावेगी।
40. कार्य के दौरान कोई भी चोरी चकारी, टूट फूट, दुर्घटना आदि की जिम्मेदारी संवेदक की होगी।
41. कार्य सहायक अभियंता विद्युत/कनिष्ठ अभियंता विद्युत के निर्देशन में करना होगा तथा एच-शेड्यूल के स्पेसीफिकेशन के अनुसार करना होगा।
42. दरे सभी टेक्स सहित दी जावें अगर कोई टेक्स लगता है तो संवेदक को स्वयं अपने स्तर पर जमा कराना होगा। इसके लिए निगम जिम्मेदार नहीं होगा।
43. किये गये कार्यों का फोटोग्राफ बिलों के साथ संलग्न करने होंगे।
44. कार्य संतोषप्रद न होने पर 7 दिन का नोटिस देकर टेण्डर निरस्त कर दिया जावेगा।
45. निविदायें खोलने की दिनांक को अवकाश होने की स्थिति में निविदायें अगले कार्य दिवस को खोली जावेगी।
46. निविदा के समस्त अधिकार नगर निगम कोटा उत्तर में निहित होंगे।
47. आर.टी.पी.पी. एक्ट 2012 एवं आर.टी.पी.पी. रूल्स 2013 की सभी नियमों एवं शर्तें पूर्णतः प्रभावी रहेगी।

हस्ताक्षर निविदादाता

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अधिशायी अभियंता(वि.)
नगर निगम कोटा उत्तर