

MAHARASHTRA METRO RAIL CORPORATION LIMITED
(NAGPUR METRO RAIL PROJECT, PHASE-II)
BID DOCUMENTS

FOR

Name of work:-

Electrical utility Shifting of LT, HT O/H lines, crossings and providing LT, HT U/G cables, transformers, RMU's from MIHAN (Ch. 20200) to MIDC ESR (Ch. 38851.828) for Nagpur Metro Rail Project, Phase-2 in N-S Corridor.

TENDER NO. N2-US-01/2021

PART 4: Financial Bid & Bill of Quantities



Maharashtra Metro Rail Corporation Limited
Metro Bhawan, East High Court Road (VIP Road),
In front of Dr. Babasaheb Ambedkar Collage,
Near Dikshabhoomi, Nagpur-440010, Maharashtra, INDIA
Website: www.metroinagpur.com

Table of Contents

PART- 4 - Financial Bid & Bill of Quantities

Preamble

Bill of Quantities

PREAMBLE

1. The Bill of Quantities (i.e. BOQ) shall be read in conjunction with the Instructions to Bidders (ITB), Work's Requirement, Conditions of Contract, Notice Inviting Tender, Technical & Particular Specifications, Tender Drawings, Annexures and Addendums.
2. The quantities given in the " Bill of Quantities" are estimated and provisional. The basis of payment will be the actual quantities of work ordered and executed, as measured and certified by the Engineer and valued at the rates in the accepted price "Bill of Quantities", where applicable.
3. Employer reserves the right to omit /off load/ partially execute/ reduce the quantity of any items during execution of work. In case of reduction in quantities of estimated work or deletion of any item of BOQ, due to reason whatsoever, contractor shall not have any claim of any amount on account of the reduction in quantities of work or deletion of any Items.
4. This Bill Of quantity in Bid Document is for reference & execution of the work accordingly. Bidder has to quote his Financial Bid on E-Tender Portal of Maha Metro through online mode only.
5. The amounts should be filled both in figures and in words in Financial Bid Section on E-Tender Portal Only.
6. The Financial Bid provided in bid document shall not be filled manually or no scan copy shall be uploaded anywhere on E-Tender Portal of Maha-Metro
7. Bidder has to quote percentage (%) **Above (+) / Below (-) /At par (00)** against the estimated amount of BOQ & amount in both Figure & Words on E-Tender portal of Maha-Metro only.
8. The proposed estimated amount deemed to be include cost of all plants, labour, supervision, materials, equipment, consumables, machine, tools, electric power, water, transportation, all leads and lifts, dewatering, all temporary works and false works, transport, erection, maintenance, fencing, watering, lighting, survey, utility identification, contractor's profit and establishment/ overheads, together with preparation of design and drawings (if any), all general risks, insurance liabilities, wastage, compliance of labour laws, taxes, cess, octroi and duties (except GST), and obligations set out or implied in the contract.
9. The proposed estimated cost does not include GST (Goods & Services Tax). GST shall be paid by Maha-Metro as per prevailing rate at the time of billing of works/ supply / services (as applicable)
10. The Contractor may submit his 'On Account' bills on monthly basis as per the status of work on the last day of the respective month.

11. Payment shall be made as per the accepted rate and quantity of work executed, measured & certified by Engineer / Authorised officer of Maha-Metro.
12. Payment shall be made in Indian Rupees (INR) only.
13. The bidder should ensure that the financial / commercial quote should be only quoted in the Commercial Bid option on e-tender portal of Maha-Metro & nowhere else. If by mistake/ inadvertently the rate is quoted/ indicated anywhere in the Technical submission/ or financial quote is revealed / mentioned in any uploading of any document in Technical Bid, such bid will be rejected outright and will not be considered for any further evaluation.
14. Errors will be corrected by the Employer for any arithmetical errors in computation or summation as indicated in Contract Document.
15. Bidder may please note that to perform this contract, nothing extra shall be payable on account of field constraints, availability of front, preparation of detailed scheme for taking necessary clearance and approval from the concerned authority and other local bodies / administration etc.
16. If work is stopped due to any reasons or progress get slowdown due to reason whatsoever, no claim for payment towards the idle resources of contractor shall be paid by Maha-Metro.
17. Income Tax and any other statutory taxes to be deducted at source, will be deducted by the Employer in accordance with the Income Tax Act and any other acts in force and in accordance with instructions issued by the Authorities on this behalf, from time to time. Tax Deduction at Sources (TDS) certificate shall be issue by Maha-Metro for such deductions.

Maharashtra Metro Rail Corporation Limited

Nagpur Metro Rail Project, Phase-2

Name of Work:- Electrical utility Shifting of LT, HT O/H lines, crossings and providing LT, HT U/G cables, transformers, RMU's from MIHAN (Ch. 20200) to MIDC ESR (Ch. 38851.828) for Nagpur Metro Rail Project, Phase-2 in N-S Corridor.

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
1	5-2-14	Supplying and erecting mini feeder pillar triple pole with 200A FPMCCB as incomer and 2 outgoing circuits with HRC fuse base and cartridge of 100A consists of aluminium bus bar 500 V 200 A complete erected in 14 gauge CRCA sheet box with supporting angles, self-locks, gasket and slanting top to be erected on provided foundation as per specification no. SW-SWR/MFP	Each	20	33931	678620.00
2	5-2-15	Supplying and erecting mini feeder pillar triple pole with 300A FPMCCB as incomer and 3 outgoing circuits with HRC fuse base and cartridge of 100A consists of aluminium bus bar 500V 300A complete erected in 14 gauge CRCA sheet box with supporting angles, self-locks, gasket and slanting top to be erected on provided foundation as per specification no. SW-SWR/MFP	Each	20	49038	980760.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
3	7-3-29	Supplying , erecting & terminating 3 x 300 sq. mm. aluminium 33 kV(E), XLPE armoured cable on wall/ceiling or laid in provided trench / pipe in an approved manner as per specification no. CB-HT	Mtr.	13000	4296	55848000.00
4	7-3-24	Supplying , erecting & terminating 3 x 95 sq. mm. aluminium 33 kV(E), XLPE armoured cable on wall/ceiling or laid in provided trench / pipe in an approved manner as per specification no. CB-HT	Mtr.	200	2523	504600.00
5	7-3-7	Supplying , erecting & terminating 3 x 300 sq. mm. aluminium 11 kV(E), XLPE armoured cable on wall/ceiling or laid in provided trench / pipe in an approved manner as per specification no. CB-HT	Mtr.	15000	2909	43635000.00
6	7-3-2	Supplying , erecting & terminating 3 x 95 sq. mm. aluminium 11 kV(E), XLPE armoured cable on wall/ceiling or laid in provided trench / pipe in an approved manner as per specification no. CB-HT	Mtr.	1500	1419	2128500.00
7	7-1-24	Supplying, erecting & terminating XLPE armoured cable 3½ core 300 sq. mm. aluminium conductor with continuous 12.97 sq. mm. (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	4000	1718	6872000.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
8	7-1-22	Supplying, erecting & terminating XLPE armoured cable 1100 V. 3½ core 185 sq. mm. aluminium conductor with continuous 12.97 sq. mm. (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	1600	1148	1836800.00
9	7-1-20	Supplying, erecting & terminating XLPE armoured cable 3½ core 120 sq. mm. aluminium conductor with continuous 12.97 sq. mm. (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	1500	790	1185000.00
10	7-1-18	Supplying, erecting & terminating XLPE armoured cable 3½ core 70 sq. mm. aluminium conductor with continuous 8.35 sq. mm. (10 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	500	519	259500.00
11	7-1-16	Supplying, erecting & terminating XLPE armoured cable 3½ core 35 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	1000	305	305000.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
12	7-1-15	Supplying, erecting & terminating XLPE armoured cable 3½ core 25 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	500	252	126000.00
13	7-1-29	Supplying, erecting & terminating XPLE armoured cable 4 core 16 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	1000	218	218000.00
14	7-1-6	Supplying, erecting & terminating XLPE armoured cable 2 core 10 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	Mtr.	1500	148	222000.00
15	7-5-33	Providing and erecting Heat shrinkable straight through joint kit for 33 kV (E)/33 kV (UE) XLPE HT cable 3x300 to 400 sq. mm. with necessary material as per specification no. CBJT/HT	Each	40	74802	2992080.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
16	7-5-29	Providing and erecting Heat shrinkable outdoor termination kit for 33 kV (E)/33 kV (UE) XLPE HT cable 3x300 sq. mm. to 400 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	50	30021	1501050.00
17	7-5-25	Providing and erecting Heat shrinkable indoor termination kit for 33 kV (E)/33 kV (UE) XLPE HT cable 3x300 sqmm to 400 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	5	21529	107645.00
18	7-5-11	Providing and erecting Heat shrinkable straight through joint kit for 11 kV (E) XLPE HT cable 3x240 to 400 sq. mm. with necessary material as per specification no. CBJT/HT	Each	70	27319	1912330.00
19	7-5-7	Providing and erecting Heat shrinkable out door termination kit for 11 kV (E) XLPE HT cable 3x240 to 300 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	50	12470	623500.00
20	7-5-3	Providing and erecting Heat shrinkable indoor termination kit for 11 kV (E) XLPE HT cable 3x240 to 300 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	50	9637	481850.00
21	7-5-9	Providing and erecting Heat shrinkable straight through joint kit for 11 kV (E) XLPE HT cable 3x up to 95 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	10	19144	191440.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
22	7-5-5	Providing and erecting Heat shrinkable out door termination kit for 11 kV (E) XLPE HT cable 3 x up to 95 sq. mm. with necessary material as per specification No. CB-JT/HT	Each	10	12869	128690.00
23	7-5-1	Providing and erecting Heat shrinkable indoor termination kit for 11 kV (E) XLPE HT cable 3x up to 95 sq. mm. with necessary material as per specification no. CB-JT/HT	Each	10	7396	73960.00
24	7-4-6	Providing & erecting epoxy straight through joint outdoor/indoor for LT XLPE armoured cable 300 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	30	5942	178260.00
25	7-4-12	Providing & erecting epoxy outdoor / indoor end termination kit for LT XLPE armoured cable 240 to 300 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	30	3050	91500.00
26	7-4-4	Providing & erecting epoxy straight through joint outdoor/indoor for LT XLPE armoured cable 120 to 185 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	30	3109	93270.00
27	7-4-11	Providing & erecting epoxy outdoor / indoor end termination kit for LT XLPE armoured cable 150 to 185 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	10	2424	24240.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
28	7-4-2	Providing & erecting epoxy straight through joint outdoor/indoor for LT XLPE armoured cable 25 to 50 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	30	2271	68130.00
29	7-4-1	Providing & erecting epoxy straight through joint outdoor/indoor for LT XLPE armoured cable 2.5 to 16 sq. mm. cable, with necessary material as per specification no. CB-JT/LT	Each	20	1925	38500.00
30	7-6-5	Supplying & laying (including excavation) 15 cm dia RCC Hume pipe with coupling collar of standard thickness at required depth up to 90 cm below road / ground surface, for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was (Except bitumen carpet).	Meter	1000	595	595000.00
31	7-6-6	Supplying & laying (including excavation) 15 cm dia half round RCC Hume pipe of standard thickness at required depth up to 90 cms. below road / ground surface, for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was (Except bitumen carpet).	Meter	30000	460	13800000.00
32	7-6-12	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 120 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.	Meter	1500	363	544500.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
33	7-6-16	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 200 mm outside dia, double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.	Meter	1000	679	679000.00
34	7-6-11	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 90 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.	Meter	1000	308	308000.00
35	7-6-16	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 200 mm outside dia, double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. Note: 1)For erection of G I pipe on stone wall add Rs.5/- per meter to the overall rate.	Meter	3000	684	2052000.00
36	7-6-4	Supplying & erecting G.I. pipe 'A' class 75 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE	Meter	500	574	287000.00
37	16-5-15	Supplying and erecting ISI mark GI pipe 100 mm dia 'C' class position with accessories complete. Specification no. CW-PLB/GP.	Meter	1000	1665	1665000.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
38	8-4-2	Supplying & erecting MS pole bracket for guarding/LT OH Line , fabricated from angle iron 50x50x6 mm and 1100mm long for necessary nos. of provided insulators and erecting on pole with 50x6mm clamp complete as per specification no. OH -PL/BKT	Each	50	485	24250.00
39	8-4-11	Supplying & erecting 100 x 50x6 mm with 4.7 mm thick web and 7.5 mm thick flange channel iron cross arm of suitable length for 2.4m wide DP structure and erecting on DP with 50x6 mm clamp as per approved method of construction and complete as per specification no. OH-PL/BKT.	Each	50	1803	90150.00
40	8-4-12	Supplying and erecting vee cross arm with ISM channel of 75x40x6mm , for 11kV HTOH line with arrangement to fix insulator at 45mm from the end & horizontal distance between insulators 1220 mm bent at angle of 60 degree keeping base 305 mm and the total vertical height of V cross arm as 460mm, and fixed on pole with MS clamp of 80x10 mm, nut bolts,washers complete as per specification no. OH-PL/VCA	Each	20	1124	22480.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
41	8-4-13	Supplying and erecting vee cross arm with ISM channel of 100 x 50 x 6mm or 22/ 33kV HTOH line with arrangement to fix insulator at 45mm from the end & horizontal distance between insulators 1530 mm bent at angle of 60 degree keeping base 310 mm and the total vertical height of V cross arm as 460mm, and fixed on pole with MS clamp of 80x10 mm, nut bolts, washers complete as per specification no. OH-PL/VCA	Each	20	1547	30940.00
42	8-4-14	Supplying and erecting 75x40x6 mm with 4.4 mm thick web and 7.3 mm thick flange channel (top pin) with clamp of suitable length so as to maintain vertical clearance of 1065 mm for 11 kV,1320 mm for 22 kV between insulators for erection of top pin insulators complete as per specification no. OH-PL/VCA	Each	50	477	23850.00
43	8-4-17	Supplying & erecting single pole cut point channel set of for 11 kV HT OH line, two channel of size 100 x 50 x 6 mm 1.6 m long having stud angle of size 50 x 50 x 6 mm 1.5 m long long with necessary clamps, nut bolts etc. complete.	Each	70	3995	279650.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
44	8-4-25	Supplying & erecting end pole D. P. Structure for 11/0.415 kV, 100 kVA Transformer with R.S.J. Pole 2 Nos. of size 100 x 116 mm x 11 Mtr. Long with suitable Distribution Box of C.R.C.A. Sheet 16 SWG with 4 Pole MCCB 200 Amps as incomer & 6 Nos.100 Amps Kitkat/MCCB for outgoing circuits. Transformer D.P. Structure includes the A. B. Switch 200 Amps, D.O. fuse Set & L.A. Set. 2 Nos. Top channel of size 100 mm x 50 mm for erection of A.B. Switch & 2 Nos. Base channel of size 100 mm x 50 x mm for erecting Transformer. Channel of size 75 x40 mm for erecting D.O. Fuse Set, L.A., A.B. Switch handle etc. Angle of size 50 x 50 x6 mm for erecting Distribution Box , Transformer Belt etc.as per drawing (min. 124 Kg. iron work) with necessary clamps, Nut-bolts. vee cross arm, top clip, insulators etc. complete with caution board & barbed wire. D.P. Structure shall be erected in c.c. foundation complete.	Each	2	118220	236440.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
45	8-4-26	Supplying & erecting end pole D. P. Structure for 11/0.415 kV, 200 kVA Transformer with R.S.J. pole 2 nos. of size 100mm x 116 mm x 11 m long with suitable distribution box of C.R.C.A. sheet 16 SWG with 4 pole MCCB 300 Amps as incomer & 6 nos.100 amps kitkat/MCCB for outgoing circuits. Transformer D.P. structure includes the A. B. switch 200 Amps, D.O. fuse set & L.A. set. 2 nos. Top channel of size 100 mmx 50 mm for erection of A.B. switch & 2 nos. base channel of size 100 mm x 50 x mm for erecting transformer. Channel of size 75 x40 mm for erecting D.O. fuse set, L.A., A.B. switch handle etc. Angle of size 50 x 50 x6 mm for erecting distribution box, transformer belt etc. as per drawing (min. 124 Kg. iron work) with necessary clamps, nut-bolts, vee cross arm, top clip, insulators etc. complete with caution board & barbed wire. D.P. Structure shall be erected in c.c. foundation complete.	Each	2	134589	269178.00
46	8-6-1	Supplying and erecting pin type LT medium insulator 100 mm x 62 mm dia. with suitable G.I. spindle, nut, bolts complete erected.	Each	50	66	3300.00
47	8-6-2	Supplying and erecting porcelain shackle type LT medium insulator 75x115 mm dia. with G.I. (Shackle) strips , nuts and bolts, complete.	Each	50	53	2650.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
48	8-6-6	Supplying and erecting porcelain disc type insulator with necessary hardware suitable for 11kV line, complete as per specification no. OH-INS/DI	Each	100	1058	105800.00
49	8-6-8	Supplying and erecting porcelain disc type insulator with necessary hardware suitable for 33 kV line complete as per specification no. OH-INS/DI	Each	100	1722	172200.00
50	8-6-15	Supplying and erecting distribution class, 11 kV thyrite type lightning arrester with nut bolts, on provided MS channel as per specification no. OH-INS/LA	Each	50	992	49600.00
51	8-7-2	Supplying and erecting G.I. stay set for poles , including loop insulators at inaccessible height complete with anchor plate 300 x 300 x 6 mm., straining screws, G.I. stay wire 7/8 SWG , G.I. stay rod 20 mm x 1.8 m length and pole clamps duly erected in provided cement concrete foundation.	Each	100	1522	152200.00
52	8-7-11	Supplying and erecting pole clamp made from 50 x 10 mm MS flat for pole or pipe, post complete erected with 15 mm bolts and nuts, complete duly painted with one coat of red oxide and two coats of aluminium paint.	Each	100	247	24700.00
53	8-7-12	Supplying and erecting 'D' type pole clamps , fabricated from 50 x 6 mm MS flat with 15 mm dia. bolts and nut fixed to steel tubular pole duly painted with one coat of red oxide and two coats of aluminium paint.	Each	100	126	12600.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
54	8-7-14	Supplying and erecting 'C' type (half) clamps for pole made from 50 x 10 mm flat for fixing cross arms by means of 15 mm dia. bolts and nuts painted with one coat of red oxide and two coats of aluminium paint.	Each	100	157	15700.00
55	8-8-1	Dismantling the existing pole up to 6 m height with brackets, clamps, insulators, stay from the cement concrete foundation and making the site clear by refilling the pits with excavated materials and bringing it to the ground level.	Each	150	456	68400.00
56	8-8-2	Dismantling the existing pole above 6 m height with brackets, clamps, insulators, stay from the cement concrete foundation and making the site clear by refilling the pits with excavated materials and bringing it to the ground level.	Each	200	740	148000.00
57	8-8-3	Dismantling the existing overhead line including G.I. wires of all sizes without damaging & making the coils in suitable sizes.	Km	6	1019	6114.00
58	8-8-4	Dismantling existing lightning arrestor set, insulator complete from DP structure in an approved manner.	Job	10	85	850.00
59	9-1-1	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP	Each	30	3980	119400.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
60	9-1-3	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm with funnel with a wire mesh for watering and brick masonry block C.I. cover complete with all materials, testing & recording the results as per specification no. EA-EP	Each	15	5159	77385.00
61	9-1-4	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials as per specification no. EA-EP	Each	100	1268	126800.00
62	9-1-5	Supply, Installation, Testing and commissioning of maintenance free earthing comprising of Electrode of 17.2 mm diameter Low Carbon Steel with 250 micron molecular copper bonded earthing rod of Length 3m along with 25 kg Carbon based environment friendly back fill ground enhancing compound required to fill up the excavated earth with required quantity complete. Specification no. EA-MOBI	Each	24	12226	293424.00
63	9-2-3	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required. As per specification no EA-EP .	Kg	500	194	97000.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
64	9-2-5	Supplying and erecting GI earth wire of high purity of different sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed on wall/cable/ conduit with screws in an approved manner.	Kg	500	139	69500.00
65	10-1-3	Supplying, installing, testing & commissioning of 3 phase, 11/0.433 kV, 50 Hz., 100 kVA, oil immersed and naturally cooled outdoor type , copper wound transformer, delta/star connected with additional neutral brought out on load side, temperature rise should not exceed 40oC by thermometer in oil and 45oC by the resistance in winding at full load rating, with HV tapping (with off load tap changer) off load +5 to -10 in steps of 2.5%, with standard accessories complete with test certificate with losses below 475 Watts at 50% load, 1650 Watts at 100% load as per IS:1180 - 2014 energy efficiency level II , with necessary permissions of Electrical Inspector, as per specification no SS- TR .	Each	2	319477	638954.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
66	10-1-5	Supplying, installing, testing & commissioning 3 phase, 11/0.433 kV, 50 Hz., 200 kVA, oil immersed and naturally cooled outdoor type , copper wound transformer, delta/star connected with additional neutral brought out on load side, temperature rise should not exceed 40oC by thermometer in oil and 45oC by the resistance in winding at full load rating, with HV tapping (with off load tap changer) off load +5 to -10 in steps of 2.5%, with standard accessories complete with test certificate with losses below 780 Watts at 50% load, 2300 Watts at 100% load as per IS:1180 - 2014 energy efficiency level II , with necessary permissions of Electrical Inspector, as per specification no SS- TR.	Each	2	517621	1035242.00
67	10-3-1	Dismantling the existing distribution transformer of any capacity from the plinth / foundation safely without any damages.	KVA	500	28	14000.00
68	10-3-2	Dismantling existing pole mounted distribution transformer safely without any damages.	KVA	1000	40	40000.00
69	10-3-3	Dismantling existing DO / AB switch set complete from D.P. structure in an approved manner.	Set	20	331	6620.00
70	8-1-14	Supplying and erecting rolled steel joist (girder) pole 152 x 152 mm (37.1 kg/m) with provided base plate in provided foundation as per specification no. OH-PL/RSJ	Meter	960	2092	2008320.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
71	16-1-3	Making trench of suitable width and depth in hard murum / tar road for laying provided LT cable of 16 sq. mm & above and covered with half round hume pipe complete as per specification no. CW-EXN-CTR	Meter	5000	256	1280000.00
72	16-1-4	Making trench of suitable width and depth in soft soil for laying provided LT cable of 16 sq. mm & above and covered with half round hume pipe complete as per specification no. CW-EXNCTR	Meter	6000	223	1338000.00
73	16-1-5	Excavating hard Rock or bituminous road by chiselling for preparing pit for pole / stay/earth plate / for laying cable/ pipe & clearing the site by removing debris & making the site as required complete.	M3	1500	948	1422000.00
74	16-1-7	Excavating soft murum / soft soil road by chiselling for preparing pit for poles stay or earth plates or for laying cables, pipes & clearing the site by removing debris & making the site good complete.	M3	18800	203	3816400.00
75	16-3-1	Making transformer plinth (1.5 x 1.5 x 1.5) m in size with necessary excavation in ground with 150 mm. thick M- 10 PCC at the bottom and top and 250 mm. thick, burnt brick wall constructed at periphery and remaining hollow portion shall be filled with 40mm hard broken aggregate. External surface duly plastered by 12 mm thick including watering etc complete.	Each	5	13232	66160.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
76	16-3-3	Making cement concrete foundation including excavation (60 x 60 x 150) cm deep in 1:3:6 cement concrete 20 x 25 mm stone metal, (45 x 45 x 45) cm /45 cm dia. x 45 cm height plinth duly plastered, with necessary curing and finishing complete. (above 6 m to 9 m poles)	Each	15	1836	27540.00
77	16-3-7	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete. (pole muffing or any other purpose).	M3	1000	3095	3095000.00
78	LAR	Service Box 200mm x 300 mm for consumer	Nos	40	2000	80000.00
79	LAR	Bore Horizontal With HDPE Pipe up to 130 MM Dia. For laying of cables crossing of roads across / along the road.	Mtr	5000	5602	28010000.00
80	LAR	Supplying & erecting 11 KV outdoor type Ring Main with scada compatible, motorised operation, without FRTU, Gas insulated & touch proof kit (if required), as per latest MSEDCL approval & specifications with following configuration complete on CC foundation/MS channels/trench, etc, in an approved manner.				
	i	3 LBS	Set	4	570000.00	2280000.00
	ii	2 LBS + 1 VCB	Set	1	720000.00	720000.00
	iii	3 LBS + 1 VCB	Set	3	770000.00	2310000.00
	iv	4 LBS + 1 VCB	Set	2	820000.00	1640000.00
	v	5 LBS + 1 VCB	Set	2	1265749.00	2531498.00

Sr. No.	PWD Electrical CSR 2019-20	Description	Unit	Qty.	Rate	Amount
81	MARKET	Supplying & erecting 33 KV outdoor type Ring Main with scada compatible, motorised operation, without FRTU, Gas insulated & touch proof kit (if required), as per latest MSEDCL approval & specifications with following configuration complete on CC foundation/MS channels/trench, etc, in an approved manner.				
	RATE					
		3 LBS + 1 VCB	Set	1	2450000	2450000.00
		Total Amount (Estimated)				20,05,69,020.00

Quoted Percentage (In words)	% Above (+)	
	Below (--)	
	At par (00)	
Quoted Amount (In Figure)		
Quoted Amount (In Words)		

Note:-

- 1 This Bill Of quantity in Bid Document is for reference & execution of the work accordingly. Bidder has to quote his Financial Bid on E-Tender Portal of Maha Metro through online mode only.
- 2 The amounts should be filled both in figures and in words in Financial Bid Section on E-Tender Portal Only.
- 3 Bidder has to quote percentage (%) Above (+) / Below (-) /At par (00) against the estimated amount of BOQ & amount in both Figure & Words on E-Tender portal of Maha-Metro only.
- 4 The Financial Bid provided in bid document shall not be filled manually or no scan copy shall be uploaded anywhere on E-Tender Portal of Maha-Metro.