

**"Unprice bid format" cum "Schedule of quantity and rate"**

**Name of the work: Signalling & Telecommunication (S&T) Modification Works in station in Section "Gr 239 Indoor Works" FOR RAILWAY ELECTRIFICATION PROJECT IN BHANDAI-UDI, BIRLANAGAR-ETAWAH AND SHIKOHABAD-FARRUKHABAD INCLUDING MAINPURI-ETAWAH, SECTION OF AGRA, JHANSI AND ALLAHABAD DIVISIONS OF NORTH CENTRAL RAILWAY UNDER RE PROJECT LUCKNOW, TOTAL RKM 386/440TKM.**

**Tender ref no.T0AVX00073 dated: 07.12.2022**

Sl.No.	Item Description	Unit	Further anticipated	Rate in Rs.	Amount In Rs.	Weightage (%)
1	Supply & Installation of Maintenance free earthing and bonding system as per RDSO.	NO's	5			4.3866274%
2	Supply of FCPC To SCPC 10 meter long patch cords with 0 db adaptors	NO's	9			0.5275568%
3	Supply and installation of 48V/200AH VRLA maintenance free battery	NO's	3			12.2113143%
4	Supply, installation,including earthing of 42U 19" covered racks for housing SDH and PD-MUX equipment's, DDF, FMS, MDF, using krone module etc.	NO's	2			2.8849178%
5	Supply and installation testing and commission of 2 MB programmable primary digital drop insert multiplexer	NO's	3			11.1717931%
6	Supply & fixing of PVC channels of size 60x60 mm required by BHEL Engineer in charge. Railway by fixing / clamp to the wall for indoor wiring purposes& drawing of indoor cables.	Mtrs	5			0.0230715%
7	Installation, termination, wiring, testing and commissioning of point machine	Per Machine	2			0.8765308%
8	Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black.	Mtrs	80			0.0402696%
9	Supply of MS flat of size 40 x 6mm	Mtrs	80			0.4314788%
10	Installation of copper tape 3 x 25 mm	Mtrs	200			1.1082803%
11	Supply of copper tape 3 x 25 mm	Mtrs	200			4.1258591%
12	Supply and installation of ARA Terminal block with links, 6 way,	NO's	800			2.0058878%
13	Erection & wiring of shunt signal post.	NO's	2			0.2464829%
14	Supply & Installation of Independent shunt signals complete with post, surface base, position light shunt signal unit, Anchor bolts, Universal lock with key etc.,	NO's	2			0.4661874%
15	Initial charging of lead acid low maintenance batteries 48V, 200AH VRLA or any other batteries.	NO's	10			0.4266926%
16	Supply & installation of SMPS battery chargers for telecom use 48V, 25 Amps in N+1 configuration using 3 modules of 25 Amps (FR/BC) suitable for 200 AH LM Batteries with lightning and surge protection with automatic switching between the modules.	NO's	3			6.5866147%

Sl.No.	Item Description	Unit	Further anticipated	Rate in Rs.	Amount In Rs.	Weightage (%)
17	Fixing of 10 pair CT box and termination of cable at the station/LC gates, TSS, PS, SSP, Quarters, Service buildings etc.	NO's	2			0.1452775%
18	Fixing of 20 pair CT box and termination of cable at the station/LC gates, TSS, PS, SSP, Quarters, Service buildings etc.	NO's	2			0.1888607%
19	Excavation of trench 0.35m width 1.2m deep in all categories of soil such as black cotton / hard soil / murrum / soft rock mixed with boulders etc., as per cable route plan. Back filling the trench with earth to the level of surrounding ground after laying cables.	KM's	1.2			4.4661718%
20	Laying of signaling / power / cables of various sizes.	KM's	15			2.2532508%
21	Excavation of PIT, casting of concrete foundation for Location Box-Single case, erection of location box, Lamp holder 2 pin with switch, wiring material, wiring, testing and commissioning.	Per Box	6			0.9459736%
22	Supply & installation of Location box (Full case) along with internal accessories and painting to mount different S&T equipments.	NO's	2			1.1474144%
23	Supply & installation of Location box (Half case) along with internal accessories and painting to mount different S&T equipments.	NO's	4			1.8513607%
24	Drawing of PVC sheathed cable in PVC conduit pipe/casing. PVC conduit pipe of 32 / 20 mm (External dia.), thickness 1.5 mm, medium density fit for electrical purposes	Mtrs	60			0.0610109%
25	Track crossing by Horizontal boring method as advised by the engineer at site. Confirming to IS 139 heavy class in the Bore drilled with coupler between two pipes .All the joints of casing pipes should be tightened leak proof.	Mtrs	298			21.6463488%
26	Supply of DC-DC Convertor 24-40V, 10A	No's	2			0.8276544%
27	Excavation of cable pit without damaging existing working cables, laying& insertion of new extra cables.	Per Box	2			0.0649388%
28	Supply and installation of rack mounted FMS fibre parts no.1U 24 Fs 24FP Raychem make including 24 Nos 0.2 db FC/PC Adaptors and 24 Nos 900 MICRON 1.5 meter FCPC pigtailed with RDSO specification No.RDSO/SPN/TC-037-2000 (ver3) or latest.	No	1			0.5607937%
29	Supply and Installation of DWC pipe with one snap fit coupler and 'O' ring conforming to RDSO/SPN/204/2011 Ver. 1.1or latest RDSO specification , Non-metallic, corrugated, multiwalled, normal duty, pliable, without protection against chemical attack and Non flame propagating in 6 meter length of size 120 mm outer dia& 102 mm inner dia.( Permitted tolerance in dia = +/- 2 mm).	Mtr	18			0.1008741%
30	Supply and installation of new TLD box, GI pipe, 2X2.5 Sq mm cable and wire rope with accessories as per dwg no. RVNL/S&T/SG-017/2005, termination of cable in TLD boxes and connection/bonding to track as per railway practice.	Nos	5			0.9777084%
31	Supply and installation of Bonding with GI Wire 4mm dia (8 SWG ) for track jumper & fish plate joints(S & T "Z" Bond) bonds.This will include Drilling of 7.0/7.1/7.2 mm dia holes in rails ( 4nos. ) and provision of two jumpers for each bond, clipping of bonds etc with contractors own tools as per Instruction of Engineer at site.	Nos	30			0.1339542%
32	Supply and installation of Adjustable Track feed Resistance.	No	4			0.0899307%

Sl.No.	Item Description	Unit	Further anticipated	Rate in Rs.	Amount In Rs.	Weightage (%)
33	Supply and installation of fuse Holder 20 Amp capacity to IRS Spec S 78/92(or IRS.S 78/Tentative) or latest./Fuse links 20 / Amp capacity to IRS Spec S 78/92 or latest.	Nos	30			0.1779083%
34	Laying of indoor Signaling cable on ladder, dressing, and terminating the same on Old and New CT rack, wherever required, to patch the Old Outdoor Signaling cable in new installation.	per Stn	2			1.3953558%
35	Supply of 3x0.7 and 16/0.2 multi strand flexible wire red, black and others (wiring material),	Mtrs	5000			2.5292275%
36	Supply of Multistrand flexible Cable Red, green yellow for signal wiring size 2.5 sq mm dia.	Mtrs	650			1.1337685%
37	Supply of Flexible Wire Copper multistrand, 16 Sq. mm, PVC insulated insulation thickness of 1.5 mm±0.15; Number of conductors:126 as per specification no: IRS:S 76/89 Amendt-3. For wiring from IPS to fuse/termination board in Red&Black colour for DC supply, Gray for AC supply and Green for earth wire	Mtrs	300			0.6540508%
38	Supply & installation of 'B' type choke.	No's	5			0.2821832%
39	Supply & installation of TF Charger.	No's	4			0.6010765%
40	Supply & installation of LM Secondary cell 80 AH or equivalent.	No's	6			0.3708594%
40	Supply & installation of VF transformer (1120:470 ) 6 Quad for Block Equipment & EC sockets	NO's	2			0.0461528%
42	Placing and positioning width wise , of second- class country made Bricks above the screened earth after laying the cable. (placing of bricks @ eight to nine bricks to cater one meter length)(cost of brick not included)	km	1.5			0.9724760%
43	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	sqm	10			0.0098982%
44	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge In cement mortar	cum	2			0.0530519%
45	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	8			0.9800579%
46	15mm cement plaster on the rough side of single or half brick wall of mix:1:6 ( 1 cement : 6 fine sand)	Sqm	3			0.0158543%

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47	Installation of Rack Type STM-1 ADM unit with STM-1 aggregate interface, 21 E1s and 4 nos. of 10/100 base-T Ethernet port order wire, power supply unit, sub rack installation material and necessary material etc.	No's	3			0.7055431%
48	Supply and Installation of cable termination pannel fitted with 6 nos. of 32 way U link feed pannel along U links complete and mounting arrangement	No's	9			1.1139414%
49	Installation and Commissioning of NMS along with other S&T equipment at Head Quarter	No's	1			2.1647880%
50	Installation of 40x 6 mm MS Flat for Earthing of existing LBs & Signal Posts by replacing existing GI wire and connecting to existing Earth Pipe.	meter	50			0.0464173%
51	Supply and Installation of RCC Enclosure for Earth Pit	Nos	10			0.2106314%
52	Supply and Installation of RCC Enclosure cover for Earth Pit	Nos	10			0.1053157%
53	Installation of Conventional earth pit including earth connection to S&T installation by suitable means(Ms flat/copper wire) as required. (Earth pipe supplied by BHEL)	Nos	10			0.4996565%
54	Wiring in existing Full Location Boxes	Nos	4			0.6436533%
55	Wiring in existing Half Location Boxes	Nos	4			0.5281258%
56	Supply of all consumables, charging, wiring and in new Full Location Boxes	Nos	4			0.7096691%
57	Supply of all consumables, charging, wiring and in new Half Location Boxes	Nos	4			0.6436533%

Sl.No.	Item Description	Unit	Further anticipated	Rate in Rs.	Amount In Rs.	Weightage (%)
58	63 Amp MCB	Nos	6			0.3057353%
59	16 Amp MCB	Nos	3			0.0730299%
60	Change over panel	Nos	1			0.0468299%
<b>Total amount (Excluding GST)</b>				<b>No need to quote here</b>		<b>100.00%</b>
	<b>Bidder to confirm having quoted their price in BHEL NIC portal (<a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>) in the manner described in Note: ( a ) below, by writing "QUOTED" here</b>					
<b>Note</b>						
a	<b>Bidders should quote only the total amount excluding GST in the specified place in BHEL NIC Portal . They should not fill/quote/write anything in col. of Rates and Amount. These rates &amp; amount will be derived from the Total amount quoted and weightage factor assigned against respective items indicated in weightage . (Bidder to quote the total price in BHEL NIC portal <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>)</b>					
b	<b>The rate and amount are inclusive of all applicable taxes, except for the GST. For details of taxes, refer chapter-XIII of SCC.</b>					
c	<b>Evaluation Shall be based on total amount quoted by bidder.</b>					