

WORK & PRICE SCHEDULE

PUNCOM Tender No. : PMD-FI-4.6040-Tender Ajmer

Rly. Sch no.	Description	Qty	Unit	Supply rate	Installation Rate	RATE SUM	SUB Total	GST on "E"	Total	Remarks
		A		B	C	D=B+C	E=A*D	F	G=E+F	
	SCHEDULE -A									
1	Supply of Pre-lubricated HDPE duct, 40 mm OD, 33 ID as per RDSO specification No. RDSO/SPN/TC/45/2013 Rev. 2.0 or latest. The item also includes supply of all the accessories of HDPE duct like end caps, collars, bends, couplers etc. Inspection: (i) RDSO/RITES if value of item in work more than 5 lakhs (ii) Consignee subject to procurement from RDSO approved vendors if value of whole item in work less than 5 lakhs as per extant instructions by Railway Board. Inspection Charges: (i) Borne by Railways (ii) None Payment Terms: 100% on Supply	2	KM		-					
2	Laying of Pre-lubricated HDPE duct, 40 mm OD, 33 ID as per RDSO specification No. RDSO/SPN/TC/45/2013 Rev. 2.0 or latest. The item also includes installation of all the accessories of HDPE duct like end caps, collars, bends, couplers etc. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution.	2	KM	-						Supply of item by puncom against Rly Sch no. 1
3	Blowing/drawing of OFC cables in the HDPE duct along with all the protective work as per instructions of engineer incharge at site. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution.	2	KM	-						
5	Supply of DLP trunk 32X20mm with required all changeable internal/external angle, changeable flat angle, flat junction. Clips, joint for cover, end cap etc. make Legrand or superior. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Supply.	200	MTR		-					
6	Fixing & wiring (Laying) of DLP trunk 32X20mm with required all changeable internal/external angle, changeable flat angle, flat junction. Clips, joint for cover, end cap etc. make Legrand or superior. Cable will be supplied by Railway and all other fixing material will be supplied by contractor. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after execution.	200	MTR	-						Supply of item by puncom against RlySch no. 4

7	<p>Installation of Unit Maintenance Free Earth as supplied under item no. 13.3 of Chapter 13 of SOR . It includes (i) Digging the earth to the required depth. (ii) Insertion of electrode. (iii) Filling of earth enhancing compound (Approx.30 Kg) (iv) Provision of exothermic weld connections to copper tape of 25 mm x 6 mm x 150 mm to the earth electrodes. All material tools and features required for weld will be arranged by contractor. (v) This also includes CC cover 1.5 ft x 1.5 ft. 1 ft wall thickness 2 inch with cover 3 inch thickness. Cables 35 Sq mm/ 16 Sq mm/10 sq mm for connecting earth to busbar, busbar to busbar and busbars to various equipments. Earth electrode of 17.20 mm dia and 3.00 meter long high tensile low carbon steel circular rods molecularly bonded with copper and outer surface (minimum copper bonding thickness of 250 micrones to made requirement of under writer's laboratories (UL) 467-2007 or latest. Copper strips of 150 mm x 25 mm x 6 mm to be welded with each earth electrode, copper strips of 300 mm x 25 mm x 6 mm for main equip- potential busbar, copper strips of 150 mm x 25 mm x 6 mm sub equip-potential busbar in relay room, power room and panel room. GI strip 25 mm x 2 mm for ring formation of earth pits Earth enhancement material in bags for each Earth Electrode. Inspection chamber of site 300 mm x 300 mm x 300 mm (Inside dimension) of approximate 50 mm thick with pulling hooks to cover the earth pits. Note: The installation of this item shall be carried out by the contractor as per RDSO Specn.No.RDSO/SPN/ 197/2008 or latest and conforming to RDSO Drg.No.S DO/RDSO/E&B/001 or latest. Inspection: Consignee Inspection Charges: None Payment Terms: 100% after execution and testing.</p>	40	SET	-								<p>Supply by Railways, Pit digging, filling, exothermic welding, MEEB & SEEB fixing & concrete cover/chamber by contractor</p>
9	<p>Installation, wiring, testing & commissioning of managed SDH (STM-1 Add/Drop MUX and upgradeable to STM-4) fully wired for 2 X 63 MB and equipped for 21E1s and a Virtual Container (VC)-12 with STM-1(L1.1) aggregate interface including power supply, order wire, Ethernet card, sub rack, inbuilt DDF, installation material and all other accessories, manuals etc. as per TEC. Specification GR SDH 04/02, March 02 or with latest amendment. The contractor will install all other accessories as mentioned in the above said TEC Specifications and system will have provision of different redundancy cards as per the TEC Specifications. Note: It shall be possible to increase capacity from 21E1 to 63 E1s by adding / inserting tributary cards. This includes connecting all pig tails, optical patch cords etc. to the SDH equipment. This also includes connecting the SDH equipment with all cards to the 48V Bus including supply of wires and connectors. Termination of all E1s on DDF taking PVC cable over runway or a wall. At the terminal station, one port may be disabled if required as per instructions given by site engineer incharge. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Commissioning.</p>	12	Nos	-								<p>STM alongwith requiite access. Will be supplied by PUNCOM. Installation & Services required from contractor alongwith its transportation.</p>

11	Installation, wiring, testing and commissioning of 2 Mb Programmable Primary Digital drop insert multiplexer as per RDSO Specs. IRS TC- 68/2004 (Amnd.1) or latest with conference facility and other stipulation to tender documents and fully wired for 30 channel complete with power supply card, remote control, supervision facility and all other accessories, installation material, manuals etc. It should have facilities to accommodate data interface card in multi drop mode and should be able to support cards needed for video conferencing and ISDN. It shall support NMS installed at Test Room and may operate local/remote location of entire section. It also includes submission of all technical documents, manuals and supply of all miscellaneous items which will be required for final testing and commissioning of system. The above MUX should be equipped with following circuits: - i) 2 wire/ 4 wire E&M VF circuits (minimum 16 nos ckts) ii) Subscriber loop circuits (minimum 4 nos ckts) iii) Exchange loop interface circuits (minimum 8 circuits) iv) This also includes connecting all pigtails, optical patch cords etc to the SDH equipments. This also includes connection of SDH and primary MUX equipment with all interface cards to the 48V Bus including supply of wires and connectors termination of all evens on DDF taking PVC cable over runway or a wall and termination of VF interface circuit to the Krone type. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Commissioning.	12	Nos	-						MUX alongwith MDF, Krone & its cables to be supplied by PUNCOM. Installation & Services required from contractor alongwith its transportation.
12	Supply, preparation, splicing and installation of straight joint for 24 fibers along with enclosures with heat shrinkable splice protection sleeve as per TEC Specn.G/OJC-02/01 March-99 or latest. Splice losses in no case should be more than 0.1 dB. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution	10	NOS							Supply & Service to be quoted seperately
13	Supply, installation and complete wiring of Optical fiber cable termination box for 24 fibers complete with base housing, base mountings with fixing arrangement etc & splicing of fibers with low loss of pigtail cables as per detailed specification mentioned in respective tender documents. Two pairs of fibers shall be derived from either side of OFC cable at every OFC cable hut provided at wayside stations through pigtails with FC/PC connectors and remaining fibers on either side will be made through by splicing. At OFC terminal stations/MW repeater stations, all fibers shall be derived from either side and to be terminated in OFC termination box through pig tails and FC/PC connector. The OFC termination box to be supplied as per TEC No. G/FTB 01-02 March- 99 or latest. Splice losses in no case should be more than 0.1 dB. Necessary 0 dB connectors should be provided by contractor in OFC termination box. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution.	20	NOS							Supply & Service to be quoted seperately
15	Installation of Battery chargers, Power distribution Board along with MCBs of suitable ratings and wiring and commissioning of External alarm contacts through EMS. The work includes supply of battery rack, MCBs, battery cable and battery lugs and other accessories required for installation of power plant. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution.	40	Nos	-						All the requisite cables for installation to be supplied by Contractor
18	Installation, wiring, testing & commissioning of 48Volt/200AH maintenance free VRLA Batteries duly charged as per IRS Spec. No. S-93/96(A) with amendments-1 or latest. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution.	40	Nos	-						All the requisite cables for installation to be supplied by Contractor

21	Excavation of cable trench as per cable route plan, 1.2 Mtr. deep and of 0.3 Mtr. to 0.6 Mtr. wide at bottom as per RDSO sketch No. SDO/CABLE LAYING/003 or latest alongside the track in normal (all type) soil/strata, conforming to distances as per cable route plan and refilling. This work includes clearing of route from bushes etc, covering of cable laid in trench by loose soil for a layer of 50mm thickness approximately before covering by bricks. The work shall be done as per the extant practice on North Western Railway and instructions of Railway Engineer at site. In case 1.2m depth of trench is not achievable due to site conditions, specific approval of JA grade officer will be required for each site where trench depth of 1.2m is not possible. Without the approval of JA Grade officer, no payment for trenching will be made for trench depth less than 1.2m. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution(Unit is Cubic Meter)	720	CuM	-						
22	Laying of S&T Cables of various cores/ pairs/ quads in trenches/ GI pipes/ RCC pipes/ DWC pipes/ Trunking. This also includes laying of cables in track crossings & road crossings. Item includes provision of labels of coloured plastic adhesive tapes or any other identifiable material on each cable to give the cable number at each Gantry Post/hectometer post.(Cables will be meggered before and after its laying by contractor under supervision of Railway Representative and he will submit the meggering report of each testing). Length of the cable laid includes the length of the cable coiled for termination purposes. Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Execution(unit is RM running meter)	2000	Mtr	-						
25	Supply of Thermo shrink Universal Jointing kit for Quad Cable (for straight joints) as per RDSO spec IRS/TC-77/2012 revision 3 With latest Amd. Inspection: RDSO Inspection Charges: Borne by Railways. Payment Terms: 100% after Supply	65	Nos.	-						
26	Supply of SC-APC/SC-APC patch cord (1 meter) (3M, TE connectivity, R&M make or superior) Inspection: Consignee Inspection Charges: None. Payment Terms: 100% after Supply.	160	Nos.	-						
Schedule B										
1	Supply of PVC pipe 1" & 1.5mm thickness	300	Mtr	-						
2	Installation/Fixing of PVC Pipe through power Cable & data cable	300	Mtr	-						
3	Supply, fixing and wiring of indoor cable using one inch PVC conduct pipe/casing capping. This includes termination of cable with proper connectors and laying of telecom cable in PVC pipe. Cable will be supplied by Railway and all other fixing materials required will be supplied by contactor.	250	Mtr							Required Pipe to be supplied by contractor
8	Supply, installation, testing and commissioning of cabilofill wire mesh tray size 300mm(width)x50mm(Depth) electrogalvanized type.	100	Mtr							Supply & Service to be quoted seperately

9	Supply fixing wiring of 20Pair CT Box and termination of cable as per site engineer. CT box to be supplied only after sample drawing approved by engineer incharge . This item also covers termination and sealing of Block DP's.	47	Nos	-						Supply & Service to be quoted seperately
12	Relocation of Porta cabin on the same station premises by lifting and installing as per the instructions of site incharge.	11	Nos	-						

TOTAL "H"

supplied material and PUNCOM supplied material as per Railway Schedule "I" {Refer Note 1,2 below}

GRAND TOTAL "J=H+I"

GRAND TOTAL IN WORDS : _____

- Note:- 1. For transportation of material from railway Store to individual site, as required :- please refer Complete Railway Schedule of the LOA issued by Railways (Copy Attached)
 2 While awarding the work to successful bidder, PUNCOM will distribute Transportation cost "I" proportionately to all service items.
 3 Bidder should stamp & sign each page of Price Schedule.