

**CORPORATE OFFICE-DNM/RAILTEL CORPORATE OFFICE  
TENDER DOCUMENT**

**Tender No:** REL-SIG-ANSB-NLDM-OT-1-08

**Closing Date/Time:** 10/10/2022 15:00

**GGM/Sig** acting for and on behalf of The President of India invites E-Tenders against Tender No **REL-SIG-ANSB-NLDM-OT-1-08** Closing Date/Time 10/10/2022 15:00 Hrs. Bidders will be able to submit their original/revised bids upto closing date and time only. Manual offers are not allowed against this tender, and any such manual offer received shall be ignored.

Contractors are allowed to make payments against this tender towards tender document cost and earnest money only through only payment modes available on IREPS portal like net banking, debit card, credit card etc. Manual payments through Demand draft, Banker cheque, Deposit receipts, FDR etc. are not allowed.

**1. NIT HEADER**

<b>Name of Work</b>	Provision of supply, installation, testing and commissioning in connection with Electronic interlocking for Upgradation & replacement of lever frames with Electronic Interlocking at Two stations viz. Anandpur Sahib and Nangal Dam in SIR-AADR section of Ambala Division on Northern Railway		
<b>Bidding type</b>	Normal Tender		
<b>Tender Type</b>	Open	<b>Bidding System</b>	Single Packet System
<b>Tender Closing Date Time</b>	10/10/2022 15:00	<b>Date Time Of Uploading Tender</b>	16/09/2022 11:47
<b>Pre-Bid Conference Required</b>	No	<b>Pre-Bid Conference Date Time</b>	Not Applicable
<b>Advertised Value</b>	11121412.74	<b>Tendering Section</b>	SIGNALLING
<b>Bidding Style</b>	Single Rate for Tender	<b>Bidding Unit</b>	Above/Below/Par
<b>Earnest Money (Rs.)</b>	222500.00	<b>Validity of Offer ( Days)</b>	45
<b>Tender Doc. Cost (Rs.)</b>	0.00	<b>Period of Completion</b>	3 Months
<b>Contract Type</b>	Works	<b>Contract Category</b>	Expenditure
<b>Bidding Start Date</b>	26/09/2022	<b>Are Joint Venture (JV) firms allowed to bid</b>	No
<b>Ranking Order For Bids</b>	Lowest to Highest	<b>Expenditure Type</b>	Deposit Work

**2. SCHEDULE**

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
<b>Schedule A-Schedule A</b>							11121412.74	
1	1	8.00	Numbers	46355.45	370843.60	AT Par	370843.60	
	<b>Description:-</b> Supply & erection of Powder Coated Cable Termination Racks as per Northern Railway Drg. with suitable grouting arrangement. The cable termination rack will be completed with scaffolding, insulators and 200-Way tag blocks with poly carbonate covers, ladder arrangement, modular terminals fixed on anodized standard square rod / DIN rails and other accessories. Each cable termination rack will have 16 rows of square bar fitted with modular terminals on each bar. It includes supply of Tag blocks as per RDSO Specn. No. IRS:S-77/2006 (Rev.1) or latest and RDSO Drg.No. SA-24751 or latest, Modular terminals as per RDSO Specn.No.IRS:S-189/2004 Rev.2.0 or latest. The top of cable termination racks will be supported through an angle iron with one side fixed on supporting wall. (Inspection by Consignee)							
2	2	18.00	Set	14234.25	256216.50	AT Par	256216.50	
	<b>Description:-</b> Supply of basic material to construct unit maintenance free earth as per RDSO Specs. No RDSO/SPN/197/2008 or latest and conforming to RDSO Drg. No. SDO/ RDSO/E &B/001 dtd.19.09.08 It consist of following: Copper bonded steel electrode of 3.0 m long, 17.2 mm dia with copper bonding thickness of minimum macrons and UL listed and marked = 1 no. Earth enhancement material supplied in sealed bags of minimum 10 kg = 3 nos. Copper strip of 150x25x6 mm, to terminate earth rod = 1 no. Copper strip of 300x25x6 mm (MEEB) = 1 no. Copper strip of 150x25x6mm (SEEB) = 1 no. Supply of 35 sq. mm multi strand single core PVC insulated copper cable as per IS: 694 for connecting main earth electrode to MEEB in the equipment room in duplicate. Supply of 16 sq. mm multi strand single core PVC insulated copper cable as per IS: 694 for connecting MEEB to SEEB and SPD to MEEB. Supply of 10 sq. mm multi strand single core PVC insulated copper cable as per IS: 694 for connecting various equipment to SEEB. Supply of copper lug sleeve for 3/16 cable. Details of earthing materials are given in Technical specification of TS-10 in tender documents. (Inspection by RDSO)							
	3	18.00	Station	6383.37	114900.66	AT Par	114900.66	

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TENDER DOCUMENT**

Tender No: REL-SIG-ANSB-NLDM-OT-1-08

Closing Date/Time: 10/10/2022 15:00

3									<p><b>Description:-</b> Installation of Unit Maintenance Free Earth. 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 25mm x 6 mm x 150mm 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 equipment, Earth electrode of 17.00 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 microns to made requirement of under writers laboratories (UL) 467-2007 or latest, Copper strips of 150mm 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. Copper tape 25 mm x 2 mm for ring formation of earth pits Earth enhancement material in bags for each Earth Electrode. This also include Inspection chamber of site 300 mm x 300mm x 300mm (Inside dimension) of approximate 50mm 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&amp;B/001 or latest.</p>
4	4	13.00	Numbers	5123.68	66607.84	AT Par	66607.84		<p><b>Description:-</b> Casting of C.C. Foundation for Position Light Shunt Signal/ Indicator/SPI as per Northern Railway Drg. in ratio 1:3:6 by using standard size of galvanized holding down/foundation bolts. Item includes excavation, rramming of CC using vibrator, curing and plastering with 1:4 cement sand mixture. Aggregate cement, sand and holding down bolts, will be supplied by contractor. Any machines and tools, if required for execution of this item, will be arranged/provided by contractor.</p>
5	5	20.00	Numbers	1780.76	35615.20	AT Par	35615.20		<p><b>Description:-</b> Fixing of KLCR relays in field in Half location boxes if Gate lodge is not provided or at any other location as decided by Engineer in charge. Item includes supply and fixing of Hylum sheet and wiring of KLCR Relays, push buttons and LEDs for KLCR circuit. The KLCR relays, push buttons, LEDs will be fixed on a Hylum sheet of minimum 5 mm in half location box. The Hylum sheet will cover full length and breadth of the half location box and divided in two pieces of approx. 48 cm x 46 cm and 80 cm x 46 cm. The first piece to be fitted on top and will contain the KLCR relays, LEDs and push buttons. The second piece to be fitted below the first piece.</p>
6	6	22.00	Numbers	6812.12	149866.64	AT Par	149866.64		<p><b>Description:-</b> Supply and transportation of Key Lock Checking Relays (KLCR), 24 V DC, 2F/2B as per RDSO Spec no. TMA-1122/116-OLO, IRS:S-46 or latest. Ward number will be given by REL Engineer. (Inspection by Consignee)</p>
7	7	2000.00	Metre	365.52	731040.00	AT Par	731040.00		<p><b>Description:-</b> Digging of trench /chasing in solid and rocky soil as Northern Railway Drg. with optimum depth of 0.5mtrs. The sharp edges will be smoothed out in bottom of the chase and will be levelled properly. In rocky ground, cables will be laid normally on layer of shifted earth of 0.05 mtrs thickness previously deposited at bottom of the trench and cables will be covered with layer of sand or shifted earth of 0.1 mtr thickness. In case sharp edges of rocky ground cannot be protected from shifted earth then concrete/GI/CI/ PVC/DWC/ HDPE pipes will be used, if numbers of cables is small but RCC duct will be used, if number of cables are large. In isolated cases, it can be given smooth surface by using either masonry bricks or cement concrete. A row of bricks shall then be placed length wise on the top and jointed with cement mortar and layer of concrete with cement plaster shall be provided on top of the same.</p>
8	8	3.00	Pair	1215400.00	3646200.00	AT Par	3646200.00		<p><b>Description:-</b> Supply, installation &amp; commissioning of UFSBI and Block Panel for Single line operation using Block proving by Digital Axle Counter (Existing in the nominated section) as per RDSO Spec IRS:S-105/2012 (Ver.0) or latest. It shall consist of following:- (a) Universal Fail-Safe Block Interface as per RDSO Specn. No. RDSO/SPN/147/2005 (Latest Amendments) - 2 nos. (b) SM's Panel (RDSO/S/32019 - Tentative) - 2 nos. (c) Relay Rack with locking and sealing arrangement duly wired (as per RDSO/S/32020 - Tentative ) - 2 nos. (d) Relays :- QN1 - 44 nos., QNA1 - 12 nos., QL1 - 4 nos., Timer - 2 nos., (e) KLCR (RDSO/SPN/219/2016 ver 1.0 with latest amendment) for shunt key release- 4 nos. (f) Block Telephone - 2 nos. (g) RS232 to OFC modem compatible with UFSBI system to work on a single fiber up to a distance of 30 Kms. - 2 nos. (h) Automatic media changeover system of modem working on redundant channels of OFC and 6 Quad for data transmission and seamless operations of UFSBI over multiple as per N.Rly practice- 2 nos. (Inspection by RDSO)</p>
9	9	5.00	Numbers	53915.89	269579.45	AT Par	269579.45		

**CORPORATE OFFICE-DNM/RAILTEL CORPORATE OFFICE  
TENDER DOCUMENT**

Tender No: REL-SIG-ANSB-NLDM-OT-1-08

Closing Date/Time: 10/10/2022 15:00

									<b>Description:-</b> Supply & installation of LED base Colour Light Signal Unit complete as per RDSO Specification No. IRS: S-26/64 or latest. The item includes supply & erection of colour light signal post tubular 140 mm dia in required length complete with CI base, CLS unit, ladder with its base, blanking off , ladder guards, maintenance platform and MS supporting bracket in the middle of the ladder, hoods & long hoods. It also includes supply & fixing of pinnacles, offset brackets, Arm Type route indicators complete- 4 Nos., if any. The item also includes wiring inside the signal unit with 2.5 sqmm multi strand wire of different colour according to signal aspect with copper lug as per standard practice. The wiring material required to be supplied by contractor. Item includes supply of number plates with photo luminescent paint /strips. cross-arms (wooden) to be provided by the contractor till the signals are introduced. Item includes padlock for signal units. Height of the post: 3.5mtrs for loop line starters, advance starters & distant signals, 4.5 mtrs for main line Starters & Home and 5Mtrs. for Home signal on curves. (4-Aspect CLS Unit on Signal Post). (Inspection by Consignee)
10	10	1500.00	Metre	2877.06	4315590.00	AT Par	4315590.00		<b>Description:-</b> All work pertaining to Horizontal Directional Drilling (HDD)/Boring and trenchless cabling. It includes supply, transportation and insertion of DWC pipe and laying of cables in boring under the track/road by using different sizes of pipes depending on total number of cables will be crossed. The depth of horizontal boring should be minimum 1 mtr from rail flange/road level. This item will be used for track crossing of running lines - By using DWC Pipe of 200/175 mm outer/inner dia). (Inspection by RDSO)
11	11	700.00	Numbers	155.77	109039.00	AT Par	109039.00		<b>Description:-</b> Supply, installation, wiring & testing of PPTC Fuse (Inspection by Consignee)
12	12	3.00	Numbers	64100.00	192300.00	AT Par	192300.00		<b>Description:-</b> Supply of VDU Size: 42 inch suitable for VDU Control / Maintenance Terminal as per RDSO Specification no. RDSO/SPN/192/2005 with latest amendment & RDSO TAN no. STS/E/TAN/3007 version 1 dated 02.11.12. (Inspection by Consignee)
13	13	3.00	Numbers	67499.00	202497.00	AT Par	202497.00		<b>Description:-</b> Supply of VDU Size: 55 inch suitable for VDU Control/ Maintenance Terminal as per RDSO Specification no. RDSO/SPN/192/2005 with latest amendment & RDSO TAN no. STS/E/TAN/3007 version 1 dated 02.11.12. (Inspection by Consignee)
14	14	3.00	Kilometre	69527.57	208582.71	AT Par	208582.71		<b>Description:-</b> Laying of HDPE Duct in the trenches, including in HDD/ Manual boring and supply pulling of nylon rope through is at different places as per direction of Engineer incharge/ site engineer. It includes Supply of HDPE duct outer dia 40mm and inner dia 33mm as per TEC Gr. No. G/CDS-08/02 nov/2004 with latest amendment with end cap to be provided along with the drum at both end ( RDSO specification no. RDSO/SPN/TC/45/2013 Rev.2 or latest. (Inspection by Consignee)
15	15	6.00	Numbers	31.12	186.72	AT Par	186.72		<b>Description:-</b> End Plug
16	16	3.00	Numbers	39.32	117.96	AT Par	117.96		<b>Description:-</b> Cable sealing plug
17	17	3.00	Numbers	80.20	240.60	AT Par	240.60		<b>Description:-</b> Plastic couplers-slip fit/push fit type
18	18	3.00	Kilometre	10624.86	31874.58	AT Par	31874.58		<b>Description:-</b> Blowing / drawing of OFC through HDPE duct and protective work already provided in the evacuated trench. All the equipments and machinery required shall be arranged by the contractor at his own cost. Cable should be laid according to the technical conditions and instructions of the site incharge
19	19	4.00	Numbers	17585.75	70343.00	AT Par	70343.00		<b>Description:-</b> Supply & installation of 24 fiber straight joint enclosure (SJC) complete with all accessories as per TEC spec TEC/GR/TX/OJC-002/03 APR 2010 with latest amendment. (Supply through TEC approved sources only) (Inspection by Consignee)
20	20	24.00	Numbers	612.76	14706.24	AT Par	14706.24		<b>Description:-</b> Supply of OFC jumper (Patch card) 10mtr. long with FC/PC & SC or suitable connector at both end as per IRS:TC-81/2000 with latest amendment. (Inspection by Consignee)
21	21	16.00	Numbers	458.69	7339.04	AT Par	7339.04		<b>Description:-</b> Supply of OFC jumper (Pigtail) 10mtr. long with FC/PC & SC or suitable connector at both end as per IRS:TC-81/2000 with latest amendment. (Inspection by Consignee)
22	22	3.00	Kilometre	94872.00	284616.00	AT Par	284616.00		<b>Description:-</b> Supply & transportation of 24 Fibre OFC as per RDSO specification no. IRS-TC-55 or latest amendment. (Inspection by RDSO)
23	23	150.00	Metre	287.40	43110.00	AT Par	43110.00		<b>Description:-</b> Preparation of cable duct 150mm X 200mm deep for laying cable in rocky area and refilling the duct (after cable laying) with concrete mixture of 1:3:6 with contractor own cement and other materials

**CORPORATE OFFICE-DNM/RAILTEL CORPORATE OFFICE  
TENDER DOCUMENT**

Tender No: REL-SIG-ANSB-NLDM-OT-1-08

Closing Date/Time: 10/10/2022 15:00

**3. ITEM BREAKUP**

No item break up added
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**4. ELIGIBILITY CONDITIONS**

**Special Financial Criteria**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Allowed (Mandatory)

**Special Technical Criteria**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Allowed (Mandatory)

**5. COMPLIANCE**

**Check Lst**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Not Allowed

**Commercial-Compliance**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Allowed (Mandatory)
2	Please enter the percentage of local content in the material being offered. Please enter 0 for fully imported items, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions.	No	Yes	Allowed (Optional)

**General Instructions**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Not Allowed

**Special Conditions**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Not Allowed

**Technical-Compliances**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Allowed (Mandatory)

**Undertakings**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender Document	No	No	Not Allowed

**CORPORATE OFFICE-DNM/RAILTEL CORPORATE OFFICE  
TENDER DOCUMENT**

**Tender No:** REL-SIG-ANSB-NLDM-OT-1-08

**Closing Date/Time:** 10/10/2022 15:00

**Custom**

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Please submit a certificate in the prescribed format (please download the format from the link given below) for verification / confirmation of the documents submitted for compliance of eligibility / qualifying criteria. Non submission of the certificate, or submission of certificate either not properly filled in, or in a format other than the prescribed format shall lead to summary rejection of your offer.	Yes	Yes	Allowed (Mandatory)

**6. Documents attached with tender**

S.No.	Document Name	Document Description
1	TENDERNo.REL-Sig-ANSB-NLDM-OT-1-08.pdf	Tender Document

This tender complies with Public Procurement Policy (Make in India) Order 2017, dated 15/06/2017, issued by Department of Industrial Promotion and Policy, Ministry of Commerce, circulated vide Railway Board letter no. 2015/RS(G)/779/5 dated 03/08/2017 and 27/12/2017 and amendments/ revisions thereof.

As a Tender Inviting Authority, the undersigned has ensured that the issue of this tender does not violate provisions of GFR regarding procurement through GeM.

**Signed By:** RAJ KUMAR VISHWAKARMA

**Designation :** AGM/Tech