Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

CPM/RE/RVNL/NGP acting for and on behalf of The President of India invites E-Tenders against Tender No RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time 25/08/2023 11:00 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.

#### 1. NIT HEADER

Name of Work	transmission line (14.3 KM) fro Kharsia TSS (33 KM), Kharsia TSS (45 KM), Champa TSS to Raigarh (PGCIL); LILO 3 Nos a	ection, Testing and Commissioning of Raigarh (PGCIL GSS) to Raigarh TSS to Champa TSS (52 KM), Chan Bilaspur Bus Coupler (74 KM); Exter at Champa, Kharsia & Raigarh along Supply from Central Generating Ager attisgarh (India).	TSS, , Raigarh TSS to npa TSS to Gevra RD nsion of 220KV bay at with associated works in
Bidding type	Normal Tender		
Tender Type	Open	Bidding System	Two Packet System
Tender Closing Date Time	25/08/2023 11:00	Date Time Of Uploading Tender	11/07/2023 18:27
Pre-Bid Conference Required	Yes	Pre-Bid Conference Date Time	26/07/2023 11:30
Advertised Value	1456991270.11	Tendering Section	ELECTRICAL
Bidding Style	Single Rate for Each Schedule	Bidding Unit	
Earnest Money (Rs.)	20000000.00	Validity of Offer ( Days)	120
Tender Doc. Cost (Rs.)	0.00	Period of Completion	36 Months
Contract Type	Works	Contract Category	Expenditure
Bidding Start Date	19/08/2023	Are Joint Venture (JV) firms allowed to bid	Yes
Ranking Order For Bids	Lowest to Highest	Expenditure Type	Capital (Works)

#### 2. SCHEDULE

	S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
S	chedule	1-Schedule	-1000		229505.00	Above/ Below/Par			
Ţ		Please see	Item Breaku	p for details.		229505.00	AT Par	229505.00	
Description:- Earth work in formation and Protection works.									

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule	2-Schedule	e-6000			6977850.00	Above/ Below/Par		
0	Please see	Item Breakı	p for details	3.	6977850.00	AT Par	6977850.00	
2	Description	n:- Building						

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Schedule	e 3-Schedule	e-7000			9808024.49	Above/ Below/Par		
2	Please see	Item Breakı	p for details	3.	9808024.49	AT Par	9808024.49	
3	Description	n:- Platform	, passenger	amenities &	miscellaneous wo	rks ( other tha	n steel items)	

S.N	No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Sche	edule	4-Schedule	-8000		615506.22	Above/ Below/Par			
4		Please see	Item Breaku	p for details.		615506.22	AT Par	615506.22	
4		Description	1:- Supply of	cement					

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
-------	-----------	----------	----------	-----------	-------------	----------	--------	---------------------

Page 1 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

Schedul	<b>e</b> 5-Schedule-27000			2888337.50	Above/ Below/Par
F	Please see Item Breakup for details.	2888337.50	AT Par	2888337.50	
5	Description:- TSS Spares				

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Schedule	e 6-Schedule	-28000		197440.00	Above/ Below/Par			
	Please see	Item Breaku	p for details.		197440.00	AT Par	197440.00	
6	Description	1:- T&P						

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule	• 7-Schedule	e-29000		3067478.00	Above/ Below/Par			
7	Please see	Item Breakı	p for details	3.	3067478.00	AT Par	3067478.00	
'	Description	n:- SCADA						

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Schedule	8-Schedule	-33000		5767140.00	Above/ Below/Par			
	Please see	Item Breakı	p for details	3.	5767140.00	AT Par	5767140.00	
8	Description	n:- General	Electrical W	ork (GEW)				

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit		
Schedule	e 9-Schedul	e A-1					95454546.60	Above/ Below/Par		
0	Please see	Item Break	AT Par	95454546.60						
9	Description:- 220KV LILO and Bus Coupler Switch Yard (Supply)									

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Schedule	e 10-Schedu	le A-2		4493524.31	Above/ Below/Par			
10	Please see	Item Breakı	up for details	3.	4493524.31	AT Par	4493524.31	
10	Description	n:- 220KV L	ILO and Bu	s Coupler Sv	vitch Yard (Erection	1)		

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit	
Schedul	Schedule 11-Schedule B-1							Above/ Below/Par	
4.4	Please see Item Breakup for details. 948426267.38 AT Par						948426267.38		
	Description:- 220 KV, 3 Phase Transmission Line (Supply)								

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit	
Schedul	Schedule 12-Schedule B-2							Above/ Below/Par	
10	Please see Item Breakup for details. 358835182.45 AT Par						358835182.45		
12	Description:- 220 KV, 3 Phase Transmission Line (Erection)								

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule	Schedule 13-Schedule 9000						13157877.00	Above/ Below/Par
	Please see Item Breakup for details.			13157877.00	AT Par	13157877.00		
13								

Page 2 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

Description:- Site Facilities

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	<b>Bidding Unit</b>
Schedule	Schedule 14-S&T Group- C							Above/ Below/Par
1.4	Please see	Item Breakı	up for details	3.	5207821.16	AT Par	5207821.16	
14	Description	n:- Telecom	items Supp	oly				

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule	• 15-S&T Gr	1864770.00	Above/ Below/Par					
15	Please see	Item Breakı	p for details	3.	1864770.00	AT Par	1864770.00	
15	Description:- Telecom items Erection							

#### 3. ITEM BREAKUP

Schedule	Schedu	le 1-Schedule-1000				
Item- 1	Earth w	ork in formation and Protection works.				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	011010	Girth above 30 CM and up to 60 CM	Numbers	200.00	128.00	25600.00
2	011020	Girth above 60 CM and up to 90 CM	Numbers	67.00	313.00	20971.00
3	011030	Girth above 90 CM and up to 180 CM	Numbers	33.00	780.00	25740.00
4	011040	Girth above 180 CM and up to 270 CM	Numbers	33.00	1598.00	52734.00
5	011050	Girth above 270 CM	Numbers	17.00	3178.00	54026.00
6	011060	Supply & Planting trees in railway land of varieties such as Shisham, Neem, Pilkhan and other indigenous varieties suitable to the area in 0.60 m dia holes 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering including cost of labour and materials as per direction of Engineer-in-charge and maintaining the plants for one year. 1. Payment for surviving trees after three months of plantation - 25% 2. Payment for surviving trees after six months of plantation - 25% 3. Payment for surviving trees after one year of plantation - 50%		167.00	302.00	50434.00
					Total	229505.00
Schedule	Schedu	le 2-Schedule-6000				
Item- 2	Building					
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	021010	Service building of single storey Note: i) Foundation to be designed to take load of double storey. ii) Rate is for building which includes open foundations (on soils having bearing capacity of 10 T per sqm or more) upto 1.2m depth from ground level, plinth height upto 0.6m from ground level, floor height upto 3.35m.		300.00	21378.50	6413550.00
2	021020	Extra payment for provision of internal sanitary and water supply installations Note: Plinth area of only toilets/bath rooms/kitchen or pantry are to be considered for measurement and payment under the item.		300.00	1881.00	564300.00
					Total	6977850.00
Schedule	Schedu	le 3-Schedule-7000			•	
Item- 3	Platform	n, passenger amenities & miscellaneous works ( other th	an steel ite	ms)		
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount

Page 3 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

1	011010	Providing and laying 1:3:6 cement concrete in drains, foundation and floor using well graded stone aggregate of 40 mm/20 mm nominal size.	cum	103.95	3438.60	357442.47
2	011020	Cement Concrete 1:2:4 (cast in-situ/precast ) for Rail level platform wall, coping of platforms, drains and in	cum	343.20	3312.10	1136712.72
3	011030	other miscellaneous works.  Earth work in filling with contractor's earth of approved quality in platform, circulating area, level crossing and other areas including all lead and lift in layers not exceeding 30 CM in depth including mechanical compaction and watering to achieve the desired compaction as per specifications.	cum	20001.00	289.30	5786289.30
		Earth work in cutting in foundation, trenches, pucca drains in station area/block section etc in all kinds of soil including dressing of sides, ramming of bottoms, back filling of trenches, getting out the excavated soil and disposal of surplus excavated soil with all lead and lift as directed by the Engineer.				
4	011041	In all kinds of soil	cum	7590.00	172.00	1305480.00
5	011042	In ordinary rock	cum	2170.00	278.00	603260.00
6	011043	Hard Rock (requiring blasting)	cum	540.00	499.00	269460.00
7	011044	Hard Rock ( blasting prohibited)	cum	540.00	647.00	349380.00
					Total	9808024.49
Schedule	Schedul	le 4-Schedule-8000				
Item- 4	Supply	of cement				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1		Supply of 43 grade cement OPC conforming to IS: 8112 with latest amendments and using the same in the work as per RVNL's approved mix design as per RVNL's prescribed rates of consumption including all lead lift, labour, loading unloading, ascent, descent, crossing of Railway lines(s), royalty, taxes, transport (contractor's own), tools and plant complete.		2219.00	277.38	615506.22
		(contractor 5 cm), tools and plant complete.			Total	615506.22
Schedule	Schedul	le 5-Schedule-27000				0.0000.22
	TSS Spa					
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	061010	SF-6 Gas Cylinder with filling arrangement (regulator) -11 kg capacity duly filled with SF-6 Gas of required purity suitable for CBs/interruptors in TRD. (set = 02 nos of filled cylinders).		2.00	59112.00	118224.00
2		Single phase relay test system for testing of electromechanical relays, solid state static relays, microprocessor based relays and numerical relays used in TSS as per RDSO spec No TI/PSI/SPC/Test-kit/1080 (12/2008) or latest along with suitable Laptop/Notebook( with minimum configuration of 8GB/1TB/2GB GRAPHICS/Window10/WIFI/BT /15.6" screen/Antivirus for atleast 01 years) of reputed make like Dell/ HP etc with latest software and antivirus . Model of relay testing kit :-Megger make SMRT1 or superior, as approved by Engineer.		1.00	995130.00	995130.00
3	061030	Spare tower for 220KV Transmission line each 2 nos	МТ	8.00	94000.00	752000.00
4	061040	Supply of Zebra ACSR conductor for 3 phase double circuit TR line.	Kilometre	3.50	292281.00	1022983.50
					Total	2888337.50
Schedule	Schedul	le 6-Schedule-28000				
Item- 6	T&P					

Page 4 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	071010	Portable fire extinguisher dry chemical powder as per IS:2171, ISI marked (10 kg 0R 2 Nos X 5 kg as required at site and as approved by engineer).		20.00	2530.00	50600.00
2	071020	Portable fire extinguisher dry chemical powder type, suitably mounted on trolley as per IS:10658, ISI marked (25 kg capacity) with minimum discharge range 6 mtrs.		10.00	8780.00	87800.00
3	071030	Clip on digital Tong tester suitable for measuring AC current 600Amp, Fluke model 303 or Motwane make DCM-45A model or equivalent as approved by Engineer.		2.00	9355.00	18710.00
4	071040	Spanners set consisting of 4 sets of double ended Ring spanner & 4 sets of double ended Flat type spanner, 12 pieces in each set (6mm to 42mm size), Gedore or Taparia make with ISI Mark or as approved by engineer.		2.00	11523.00	23046.00
5	071050	52 pieces socket set (box spanners) with storage case. Cogex make or similar as approved by Engineer.	Set	2.00	8642.00	17284.00
					Total	197440.00
		e 7-Schedule-29000				
Item- 7	SCADA		1		_	_
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
		Preparation and supply of Design & Drawing for SCADA at LILO and BCSY			Ţ	
1	081012	Erection	Job	3.00	207294.00	621882.00
	<b>-</b>	Supply, Erection, Testing & comissioning of RTU's (as per latest RDSO specifications) at GSS				
2	081041		Each	1.00	1306442.00	1306442.00
3	081042	Erection Supply, Erection, Testing & comissioning of RTU's (as	Each	1.00	94392.00	94392.00
		per latest RDSO specifications) at LILO				
4	081051		Each	1.00	978841.00	978841.00
5	081052	Erection	Each	1.00	65921.00	65921.00
0.1	0.11	0.0.1.1.1.00000			Total	3067478.00
		e 8-Schedule-33000				
Item- 8	Genera	Electrical Work (GEW)				
	14	Description of Hem	11	04	Data	A
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
S No.		Description of Item  Wiring for light/ ceiling fan/exhaust fan/call bell/light plug/ group etc. points including circuit wiring, sub main wiring with Fire Retardant (FR), PVC insulated, multistranded, copper conductor, single core cable on surface/in recessed PVC conduits, distribution boards, sub distribution boards, earthing etc. as required. Wiring shall be done as per sizes of cables, no. of points permissible in each circuit and sub mains as indicated in Explanatory Notes.		Qty	Rate	Amount
5 No.	No	Wiring for light/ ceiling fan/exhaust fan/call bell/light plug/ group etc. points including circuit wiring, sub main wiring with Fire Retardant (FR), PVC insulated, multistranded, copper conductor, single core cable on surface/in recessed PVC conduits, distribution boards, sub distribution boards, earthing etc. as required. Wiring shall be done as per sizes of cables, no. of points permissible in each circuit and sub mains as		<b>Qty</b> 60.00	Rate 1556.00	Amount 93360.00
5 No.	No	Wiring for light/ ceiling fan/exhaust fan/call bell/light plug/ group etc. points including circuit wiring, sub main wiring with Fire Retardant (FR), PVC insulated, multistranded, copper conductor, single core cable on surface/in recessed PVC conduits, distribution boards, sub distribution boards, earthing etc. as required. Wiring shall be done as per sizes of cables, no. of points permissible in each circuit and sub mains as indicated in Explanatory Notes.	Point	-		

Page 5 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

		<u> </u>				
		Extra for provision of industrial type iron clad plug socket with 32A DP MCB in M.S. Box.				
3	091032	Erection	Point	12.00	780.00	9360.00
		Supply, installation, testing and commissioning of 230V A. C ceiling fan 1400mm with double ball bearing and suitable capacitor complete with wiring with 1.5 sq.mm FR PVC insulated copper conductor, single/ three core cable as instructed etc. as required.				
4	091041	Supply	Numbers	12.00	2339.00	28068.00
5	091042	Erection	Numbers	12.00	367.00	4404.00
		Supply and fixing of stepped type, electronic fan regulator with suitable rating for the C/ Fan on the existing phenolic laminated sheet cover plate/ modular plate of switch box, including connections, testing and commissioning as required.				
6	091051	Supply	Numbers	12.00	439.00	5268.00
7	091052	Erection	Numbers	12.00	98.00	1176.00
		Supplying, installation, testing and commissioning of 11-15 W LED lamp as approved by Engineer.				
8	091061	Supply	Numbers	6.00	230.00	1380.00
9	091062	Erection	Numbers	6.00	36.00	216.00
		Supply, erection, testing and commissioning of Recessed type LED luminaries for 2x2 Grid ceiling, powder coated, CRCA housing, high efficiency reflector & diffuser cover, system wattage 35-45W suitable to work on 220-240V AC supply.				
10	091071	Supply	Numbers	12.00	4466.00	53592.00
11	091072	Erection	Numbers	12.00	819.00	9828.00
		Supply, erection, testing and commissioning of LED down lighter having pressure die cast aluminium housing white powder coated and acrylic cover, system wattage 14-16w suitable to work on 220-240V AC supply.				
12	091081	Supply	Numbers	12.00	1683.00	20196.00
13	091082	Erection	Numbers	12.00	608.00	7296.00
		Supply, erection, testing and commissioning of LED Street light fitting ,pressure di-cast aluminium housing with suitable cover, suitable to work on 220-240V AC supply with system wattage as under :(i) Fitting 43-48 W	,			
14	091091	Supply	Numbers	12.00	6503.00	78036.00
15	091092	Erection	Numbers	12.00	547.00	6564.00
		Supply, erection, testing and commissioning of LED Street light fitting ,pressure di-cast aluminium housing with suitable cover, suitable to work on 220-240V AC supply with system wattage as under :(iii) Fitting 70-74 W	,			
16	091101	Supply	Numbers	6.00	10067.00	60402.00
17	091102	Erection	Numbers	6.00	547.00	3282.00
		Supply and installation of surface /wall mounted, LED batten type light fitting complete with LED Lamp with system wattage 18-22w suitable to work on 220-240V AC supply as approved by engineer.				
18	091111	Supply	Numbers	18.00	1422.00	25596.00
19	091112	Erection	Numbers	18.00	132.00	2376.00
		·				

Page 6 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

		Supply, erection, testing, commissioning of exhaust fan suitable for 1- phase, 230 Volts, AC supply system complete with capacitor, louver shutters, grouting bolts with nuts, making opening/ modification in the wall to suit the size of the fan, making good the damages, connections with 1.5sq. mm FR, PVC insulated, multi stranded copper conductor, single core/ three cable as instructed, earthing etc. as required. AC exhaust fan 300 mm 900 rpm with/ without louver shutters.				
20	091121		Numbers	6.00	2470.00	20820.00
20	_	117		6.00	3470.00	20820.00
21	091122	Erection  Supply, installation, testing and commissioning of wall mounted single phase 230 V, 50Hz air circulating fan of 700-750mm sweep including all accessories.		6.00	543.00	3258.00
22	091131	Supply	Numbers	3.00	11340.00	34020.00
23	091132	Erection	Numbers	3.00	1259.00	3777.00
		Supply, installation, testing and commissioning of cubical type, wall mounted, dust & vermin proof, L.T. switch board of different capacities LT switch board 63 Amp comprising items indicated as under i) incoming MCCB 63A, 4 pole, 35kA, fixed type (Ics=100%Icu) - 1 No ii) Outgoing MCCB 40A, 4 pole, 25kA, fixed type (Ics=100%Icu) - 3 Nos iii) Outgoing MCB double pole, 6-32A, 10kA - 16 Nos iv) Outgoing MCB Single pole, 6-32A, 10kA - 8 Nos v)Sleeved/Epoxy coated copper bus-bar 200 A in bus bar Chamber vi) Indication lights				
24	091161	,	Numbers	3.00	87341.00	262023.00
25		Erection	Numbers	3.00	13719.00	41157.00
		steel tubular pole , complete with the following : a) Double door, weather proof MS. Junction box (degree of protection not less than IP54 ) complete with MCB 6 amps, copper bus bar for looping 4 - core, 3 nos. LT cables and clamping with pole, as required b) Casting of foundation with concrete of M10 grade and providing muffing up to 300 mm above ground levels, as required c) Erection of GI pipe class 'B' ISI marked up to junction box for passing cable. (payment of G.I. pipe shall be made against the relevant BOQ item). (i) 7 Meter long pole with canopy type single pipe bracket (for one luminary).				
26	091171	Supply	Numbers	18.00	14880.00	267840.00
27	091172	Erection  Supply and erection of GI pipe - class 'B' ISI marked with accessories including bends etc. for support of cable with erected pole/ recessing in wall/ floor/passing earth strip OR passing cable as required: (ii) 50 mm dia		18.00	2339.00	42102.00
28	091181	Supply	Metre	30.00	458.00	13740.00
29	091182	Erection	Metre	30.00	72.00	2160.00
	las:	Supply and erection of GI pipe - class 'B' ISI marked with accessories including bends etc. for support of cable with erected pole/ recessing in wall/ floor/passing earth strip OR passing cable as required:(iv) 100 mm dia				
30	091191		Metre	60.00	1082.00	64920.00
31	091192	Erection  Supply and erection of GI pipe - class 'B' ISI marked with accessories including bends etc. for support of cable with erected pole/ recessing in wall/ floor/passing earth strip OR passing cable as required: (v)150 mm dia		60.00	171.00	10260.00

Page 7 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

00	004004		I. 4	45.00	1700.00	00400 00
32	091201		Metre	15.00	1760.00	26400.00
33	091202	Erection  Supply erection/ fixing of fire extinguishing equipments (ISI) Marked, Rubber mat (ISI marked), G.I. fire buckets filled with clean dry sand held on free standing steel stand, first aid box with medicine (ISI marked) and associated materials, shock treatment chart on aluminium frame, schematic diagram of HT/LT installation & transformer data on white hylem sheet with aluminium frame & fixing/ providing in the sub station area as per details in Explanatory notes.  Supply		3.00	277.00 77944.00	4155.00 233832.00
35	091212	Erection	Set	3.00	12241.00	36723.00
		Earthing with 3 meter long, 50mm dia, G.I. pipe class 'B' earth electrode, adding the charcoal or coke and salt, providing concrete enclosure and MS cover plate with lifting arrangement etc. including connections with 4mm G.I. wire from earth electrode to switch board / electrical equipment as required.				
36	091231		Job	60.00	3270.00	196200.00
37	091232	Erection  Supply and laying 40mm x 6mm G.I. strip at not less than 0.50 meter below ground or in recess as required.		60.00	514.00	30840.00
38	091241	Supply	Metre	300.00	120.00	36000.00
39	091242	Erection	Metre	300.00	18.00	5400.00
		Supplying and fixing 40mm x 5mm copper strip on surface or in recess or in 50mm dia G.I. pipe as required.				
40	091251	Supply	Metre	30.00	952.00	28560.00
41	091252	Erection	Metre	30.00	150.00	4500.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. i)2 Core 16 sq.mm				
42	091261	Supply	Metre	150.00	316.00	47400.00
43	091262	Erection	Metre	150.00	156.00	23400.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. v)4 Core 16 sq.mm				
44		Supply	Metre	150.00	409.00	61350.00
45	091272	Erection	Metre	150.00	156.00	23400.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. vi)4.0 Core 35 sq.mm				
46	091281		Metre	750.00	577.00	432750.00
47	091282	Erection	Metre	750.00	156.00	117000.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. viii)4.0 Core 120 sq.mm				

Page 8 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

48	091291	Supply	Metre	300.00	1454.00	436200.00
49		Erection	Metre	300.00	156.00	46800.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. ix)4.0 Core 185 sq.mm		1	,	
50	091301	Supply	Metre	300.00	2035.00	610500.00
51	091302	Erection	Metre	300.00	156.00	46800.00
		Supply, and laying of 1.1 KV grade LT XLPE insulated armoured, aluminium conductor cable, making good the damages, end terminations with aluminium crimping socket/ plugs, provisions of cable route markers, testing & commissioning etc. as required as per technical specifications. x)4.0 Core 300 sq.mm				704500
52		Supply	Metre	240.00	3298.00	791520.00
53	091312	Erection	Metre	240.00	156.00	37440.00
		Design and preparation of working & completion drawings of all HT/LT electrical installations of the project section where work is carried out such as platform lighting, internal electrification of staff quarters, level crossings, station building, offices, power line crossings, power supply distribution arrangements of stations / sub-stations, electrification of sub-station buildings etc & approval from the competent authority.				
54	091332	Erection	Job	3.00	199710.00	599130.00
		Supply, installation, testing & commissioning of outdoor type, single side /Double side Glow sign boards/Pictorial signage boards with suspension/side mounting/wall mounting type arrangements as required. (Payment for Double sided glow sign board shall be made @ 150% of the rate of single sided glow sign boards)				
55	091341	Supply	Square Foot	54.00	405.00	21870.00
56	091342	Erection	Square Foot	54.00	61.00	3294.00
		Supply, installation, testing and commissioning of AC unit, complete with LCD display cordless remote, min 3 star energy rating, suitable for 1-Phase, 230 volts +-10% AC supply including supply & installation of suitable rating, wall mounted, IC controlled electronic auto voltage corrector.c) 2.0 Tonne split type AC, inverter type(minimum 3-star rating)				
57	091351	Supply	Numbers	3.00	65582.00	196746.00
58	091352	Erection	Numbers	3.00	3675.00	11025.00
		Supply, installation, testing and commissioning of AC unit, complete with LCD display cordless remote, min 3 star energy rating, suitable for 1-Phase, 230 volts +-10% AC supply including supply & installation of suitable rating, wall mounted, IC controlled electronic auto voltage corrector. d)1.5 Tonne split type AC, inverter type				
59	091361	Supply	Numbers	3.00	46789.00	140367.00
60	091362	Erection	Numbers	3.00	3675.00	11025.00
		Supply and installation of Furniture set for substation control room.				
61	091371	Supply	Set	3.00	81442.00	244326.00
					Total	5767140.00

Page 9 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

Schedule	Schedul	e 9-Schedule A-1				
Item- 9	220KV L	ILO and Bus Coupler Switch Yard (Supply)				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	101010	Concrete for foundation and trench in hard soil.	cum	6.00	3288.28	19729.68
2	101020	Concrete for foundation and trench other than hard soil and rock.	cum	40.00	3294.85	131794.00
3	101030	Reinforced concrete for foundation and trench	cum	6.00	4367.10	26202.60
4	101040	Cable trench covers	Sqm	60.00	1463.65	87819.00
5	101050	Supply, fabrication and galvanisation of steel gantries/portals supporting structures and small parts steel work.	MT	12.00	94000.00	1128000.00
6	101060	Supply of 198 kV Surge Arrestor with discharge counters, support structures and terminal connector etc., single phase	Each	42.00	61613.20	2587754.40
		Supply of 220 kV single suspension string insulator assembly with 15 nos. antilog type disc insulator with all hard wares accessories including arcing horn with:-				
7	101071	Drop clamp set suitable for single ZEBRA ACSR sets	Numbers	16.00	21600.65	345610.40
8	101072	Suspension set suitable for single ZEBRA ACSR sets	Numbers	18.00	20453.70	368166.60
9	101080	Supply of 245 kV solid core post Insulator.	Each	16.00	27688.10	443009.60
10	101090	Supply of 300 Ah, 110 V maintenance free battery complete with tools and battery stand.	Set	3.00	782915.90	2348747.70
11	101100	Supply of float and boost battery charger ( for 300 Ah, 110 V maintenance free battery )	Each	3.00	944237.10	2832711.30
		Supply of earth system.				
12	101111	Earth electrode.	Each	20.00	3245.62	64912.40
13	101112	Earth leads 75 mm $\times$ 8 mm mild steel laid in the ground	Metre	140.00	229.72	32160.80
14	101113	Earth leads 50 mm x6 mm mild steel laid in the ground.	Metre	50.00	111.58	5579.00
15	101114	Earth leads 75x8 mm mild steel flat laid exposed.	Metre	60.00	229.72	13783.20
16	101115	Earth leads 50 mm x 6 mm mild steel flat laid exposed.	Metre	400.00	111.58	44632.00
17	101120	Supply of earth screen wires.	Metre	300.00	292.07	87621.00
18	101130	Supply and spreading of ballast/gravel in the switch yard.	cum	100.00	1157.00	115700.00
19	101140	Supply 245 kV, 1250 A, 40 KA SF-6 Circuit breaker (triple pole) with operating mechanism and marshalling box and associated structures etc.	Numbers	12.00	1774768.60	21297223.20
20	101150	Supply of 245 kV, 800-400-200/1 A, Current Transformer single phase with terminal connectors etc.		36.00	342295.80	12322648.80
21	101160	Supply of 245 kV Cap. Voltage Transformer with terminal connectors etc., single phase.	Numbers	24.00	273837.30	6572095.20
22	101170	Supply of 245 KV CVT jn Boxes	Numbers	24.00	48012.40	1152297.60
		Supply of 245 kV, 1200 A, 40 KA, Standard Gang operated HCB Isolator (triple pole) with operating mechanism box, support structures and terminal connectors including suitable interlocking arrangement etc:-				
23	101181	with 2E/S	Numbers	2.00	560758.00	1121516.00
24	101182	with 1E/S	Numbers	32.00	560758.00	17944256.00
25	101183	without E/S	Numbers	1.00	517400.40	517400.40
26	101190	Supply of 245 KV CT jn Boxes	Numbers	36.00	48012.40	1728446.40

Page 10 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

			1			
		Supply of 220 kV single tension string insulator				
		assembly with 15 nos. antifog type disc insulator with all hard wares accessories including arcing horn and				
		tension clamp set suitable for single ACSR ZEBRA				
		conductor				
27	101201	with turnbuckle	Numbers	10.00	22187.90	221879.00
28	101202	without turnbuckle	Numbers	10.00	22041.45	220414.50
		Supply of Bus post insulator clamp suitable for:-				
29	101211	Horizontal or vertical take off of single ASCR ZEBRA conductor	Numbers	2.00	3176.95	6353.90
30	101212	3 inches IPS Al Tube (rigid/sliding)	Numbers	2.00	4545.75	9091.50
31	101220	Supply erection, testing and commissioning of ACSR ZEBRA conductor	Metre	676.00	282.63	191057.88
32	101230	Supply of tubular aluminium bus bar 50 X 39 mm dia	Metre	50.00	1475.00	73750.00
33	101240	Supply of T clamp suitable for single ACSR ZEBRA to single ACSR ZEBRA	Numbers	72.00	1372.80	98841.60
34	101250	Supply of PG clamp suitable for ACSR ZEBRA to ZEBRA	Numbers	14.00	795.30	11134.20
35	101260	Supply of earth electrode including civil work.	Numbers	2.00	28137.34	56274.68
36	101270	Supply of 40 mm Dia M.S. Rod for grounding to include supply, erection including laying etc.	Metre	112.00	1029.50	115304.00
		Supply of control, relay and protection panel for:-		<u>.                                    </u>		
37	101281	220kV line distance protection panels	Numbers	3.00	1594767.90	4784303.70
		Supply of 1.1 kV grade power and control cables including laying, termination etc. Part-1				
38	101291	2 c x 25 mm2 AL pvc	Kilometre	0.90	315846.25	284261.63
39	101292	4c x 6 mm 2 Al pvc	Kilometre	1.50	170390.95	255586.43
40	101293	2c x 6 mm2 AL pvc	Kilometre	2.40	132988.20	319171.68
41	101294	2c x 4 mm2 AL pvc	Kilometre	3.00	120519.65	361558.95
42	101295	2c x 300 mm2 AL pvc	Kilometre	2.40	1890924.80	4538219.52
43	101296	7c x 2.5 mm2 CU PVC	Kilometre	6.00	199759.25	1198555.50
44	101297	10c x 2.5 mm2 CU PVC	Kilometre	18.00	28102.45	505844.10
45	101298	2c x 4 mm2 CU pvc	Kilometre	4.50	111729.75	502783.88
46	101299	4c x 4 mm2 CU pvc	Kilometre	3.30	125129.40	412927.02
		Supply of 1.1 kV grade power and control cables including laying, termination etc. Part-2				
47	101301	27c x 2.5 mm 2 CU pvc	Kilometre	1.50	1051438.50	1577157.75
48	101302	19c x 2.5 mm 2 CU pvc	Kilometre	1.50	333094.30	499641.45
49	101303	14c x 2.5 mm 2 CU pvc	Kilometre	6.00	654551.75	3927310.50
50	101304	5c x 2.5 mm2 CU pvc	Kilometre	6.00	270132.10	1620792.60
		Supply of Cable glands for power and control cables. Part-1				
51	101311	2c x25 mm2 AL PVC	Numbers	54.00	343.65	18557.10
52	101312	4c x 6 mm 2 Al PVC	Numbers	150.00	243.60	36540.00
53		2c x 6 mm2 AL PVC	Numbers	67.50	168.20	11353.50
54	_	2c x 4 mm2 AL PVC	Numbers	150.00	168.20	25230.00
55		2c x300 mm2 AL PVC	Numbers	9.00	1368.80	12319.20
56		7c x 2.5 mm2 Cu PVC	Numbers	150.00	243.60	36540.00
57		10c x 2.5 mm2 Cu PVC	Numbers	150.00	261.00	39150.00
58	_	2c x 4 mm2 Cu PVC	Numbers	60.00	385.70	23142.00
59	101319	4c x 4 mm2 Cu PVC	Numbers	150.00	263.90	39585.00
		Supply of Cable glands for power and control cables. Part-2				
60	101321	27c x 2.5 mm 2 Cu PVC	Numbers	36.00	385.70	13885.20
61		19c x 2.5 mm 2 Cu PVC	Numbers	45.00	342.20	15399.00
62	101323	14c x 2.5 mm 2 Cu PVC	Numbers	37.50	342.20	12832.50

Page 11 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

63	101324	5c x 2.5 mm2 Cu PVC	Numbers	90.00	243.60	21924.00
03	101324			90.00	243.00	21924.00
	ı	Supply of Cable Lugs and its termination for power and control cables. Part-1		1		
64	101331	2 c x 25 mm2 AL PVC	Set	111.00	13.05	1448.55
65	101332	4c x 6 mm 2 Al PVC	Set	150.00	8.70	1305.00
66	101333	2c x 6 mm2 AL PVC	Set	90.00	8.70	783.00
67	101334	2c x 4 mm2 AL PVC	Set	150.00	8.70	1305.00
68	101335	2c x 300 mm2 AL PVC	Set	18.00	163.85	2949.30
69	101336	7c x 2.5 mm2 Cu PVC	Set	150.00	7.25	1087.50
70	101337	10c x 2.5 mm2 Cu PVC	Set	150.00	7.25	1087.50
71	101338	2c x 4 mm2 Cu PVC	Set	90.00	7.25	652.50
72	101339	4c x 4 mm2 Cu PVC	Set	300.00	7.25	2175.00
		Supply of Cable Lugs and its termination for power and control cables. Part-2				
73	101341	27c x 2.5 mm 2 Cu PVC	Set	75.00	7.25	543.75
74	101342	19c x 2.5 mm 2 Cu PVC	Set	75.00	7.25	543.75
75	101343	14c x 2.5 mm 2 Cu PVC	Set	150.00	7.25	1087.50
76	101344	5c x 2.5 mm2 Cu PVC	Set	150.00	7.25	1087.50
	I	I	1		Total	95454546.60
Schedule	Schedu	le 10-Schedule A-2		ļ		
Item- 10	220KV I	LILO and Bus Coupler Switch Yard (Erection)				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	111010	Designs & drawings for traction sub stations.	Each	3.00	32459.49	97378.47
2	111020	Concrete for foundation and trench in hard soil.	cum	6.00	1092.81	6556.86
3	111030	Concrete for foundation and trench other than hard soil and rock.	cum	40.00	820.43	32817.20
4	111040	Reinforced concrete for foundation and trench	cum	6.00	991.08	5946.48
5	111050	Cable trench covers	Sqm	60.00	347.86	20871.60
6		Ection of galvanized steel gantries/portals supporting structures and small parts steel work.		12.00	2730.39	32764.68
7	111070	Erection, testing and commissioning of 198 kV Surge Arrestor with discharge counters, support structures and terminal connector etc., single phase		42.00	7342.06	308366.52
		Erection, testing and commissioning of 220 kV single suspension string insulator assembly with 15 nos. antilog type disc insulator with all hard wares accessories including arcing horn with:-				
8	111081	Drop clamp set suitable for single ZEBRA ACSR sets	Numbers	16.00	1257.15	20114.40
9		Suspension set suitable for single ZEBRA ACSR sets	Numbers	18.00	1257.15	22628.70
10		Erection, testing and commissioning of 245 kV solid core post Insulator.		16.00	2039.18	32626.88
11	111100	Erection, testing and commissioning of 300 Ah, 110 V maintenance free battery complete with tools and battery stand.		3.00	23231.90	69695.70
12	111110	Erection, testing and commissioning of float and boost battery charger ( for 300 Ah, 110 V maintenance free battery )		3.00	7260.15	21780.45
		Erection of earth system.	,	l.		
13	111121	Earth electrode.	Each	20.00	1014.05	20281.00
14	111122	Earth leads 75 mm x 8 mm mild steel laid in the ground	Metre	140.00	62.35	8729.00
15	111123	Earth leads 50 mm x6 mm mild steel laid in the ground.	Metre	50.00	45.94	2297.00
		ground.				
16	111124	Earth leads 75x8 mm mild steel flat laid exposed.	Metre	60.00	45.94	2756.40

Page 12 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

18	111130	Erection of earth screen wires.	МТ	300.00	13.13	3939.00
19		Spreading of ballast/gravel in the switch yard.	cum	100.00	8.00	800.00
20		Erection, testing & commissioning of 245 kV, 1250 A, 40 KA SF-6 Circuit breaker (triple pole) with operating mechanism and marshalling box and associated structures etc.	Numbers	12.00	44868.29	538419.48
21	111160	Erection, testing and commissioning of 245 kV, 800-400-200/1 A, Current Transformer single phase with terminal connectors etc.		36.00	13868.20	499255.20
22	111170	Erection, testing and commissioning of 245 kV Cap. Voltage Transformer with terminal connectors etc., single phase.		24.00	13868.20	332836.80
23	111180	Erection, testing and commissioning of 245 KV CVT jn Boxes	Numbers	24.00	4078.36	97880.64
		Erection, testing & commissioning of 245 kV, 1200 A, 40 KA, Standard Gang operated HCB Isolator (triple pole) with operating mechanism box, support structures and terminal connectors including suitable interlocking arrangement etc:-				
24	111191	with 2E/S	Numbers	2.00	24473.96	48947.92
25	111192	with 1E/S	Numbers	32.00	24473.96	783166.72
26	111193	without E/S	Numbers	1.00	24473.96	24473.96
27	111200	Erection, testing and commissioning of 245 KV CT jn Boxes	Numbers	36.00	4078.36	146820.96
		Erection, testing and commissioning of 220 kV single tension string insulator assembly with 15 nos. antifog type disc insulator with all hard wares accessories including arcing horn and tension clamp set suitable for single ACSR ZEBRA conductor				
28	111211	with turnbuckle	Numbers	10.00	1257.15	12571.50
29	111212	without turnbuckle	Numbers	10.00	1116.50	11165.00
		Erection, testing and commissioning of Bus post insulator clamp suitable for:-				
30	111221	Horizontal or vertical take off of single ASCR ZEBRA conductor	Numbers	2.00	1257.15	2514.30
31	111222	3 inches IPS Al Tube (rigid/sliding)	Numbers	2.00	1257.15	2514.30
32	111230	Erection, testing and commissioning of ACSR ZEBRA conductor	Metre	676.00	113.30	76590.80
33	111240	Erection, testing and commissioning of tubular aluminium bus bar 50 X 39 mm dia	Metre	50.00	59.00	2950.00
34	111250	Erection, testing and commissioning of T clamp suitable for single ACSR ZEBRA to single ACSR ZEBRA		72.00	559.70	40298.40
35	111260	Erection, testing and commissioning of PG clamp suitable for ACSR ZEBRA to ZEBRA	Numbers	14.00	559.70	7835.80
36	111270	Erection of earth electrode including civil work.	Numbers	2.00	3524.95	7049.90
37	111280	Erection, testing and commissioning of 40 mm Dia M.S. Rod for grounding to include supply, erection including laying etc.		112.00	56.55	6333.60
		Erection, testing and commissioning of control, relay and protection panel for:-				
38	111291	220kV line distance protection panels	Numbers	3.00	14071.86	42215.58
		Erection, testing and commissioning of 1.1 kV grade power and control cables including laying, termination etc. Part-1				
39	111301	2 c x 25 mm2 AL pvc	Kilometre	0.90	19544.55	17590.10
40	111302	4c x 6 mm 2 Al pvc	Kilometre	1.50	12565.70	18848.55
41	111303	2c x 6 mm2 AL pvc	Kilometre	2.40	11169.35	26806.44
42	111304	2c x 4 mm2 AL pvc	Kilometre	3.00	20104.25	60312.75

Page 13 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

1 2 c x 25 mm2 AL PVC 4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC 7c x 2.5 mm2 Cu PVC 10c x 2.5 mm2 Cu PVC 4c x 4 mm2 Cu PVC 4c x 2.5 mm 2 Cu PVC 4c x 2.5 mm 2 Cu PVC 19c x 2.5 mm 2 Cu PVC 19c x 2.5 mm 2 Cu PVC 14c x 2.5 mm 2 Cu PVC 14c x 2.5 mm2 Cu PVC 5c x 2.5 mm2 Cu PVC  1e 11-Schedule B-1 3 Phase Transmission Line (Supply)  Description of Item	Set	111.00 150.00 90.00 150.00 150.00 150.00 90.00 300.00 75.00 150.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 Total	
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC  15c x 2.5 mm2 Cu PVC  14c x 2.5 mm2 Cu PVC  14c x 2.5 mm2 Cu PVC  15c x 2.5 mm2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00 75.00 75.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 Total	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00 978.75 978.75 1957.50 1957.50 4493524.31
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00 75.00 75.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00 978.75 978.75 1957.50 1957.50
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  4c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC  5c x 2.5 mm2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00 75.00 75.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00 978.75 978.75 1957.50 1957.50
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00 75.00 75.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00 978.75 978.75 1957.50 1957.50
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC  14c x 2.5 mm 2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00 75.00 75.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00 978.75 978.75
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2  27c x 2.5 mm 2 Cu PVC  19c x 2.5 mm 2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC 7c x 2.5 mm2 Cu PVC 10c x 2.5 mm2 Cu PVC 2c x 4 mm2 Cu PVC 2c x 4 mm2 Cu PVC 4c x 4 mm2 Cu PVC Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2 27c x 2.5 mm 2 Cu PVC	Set	150.00 90.00 150.00 18.00 150.00 90.00 300.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00
4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC  Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-2	Set	150.00 90.00 150.00 18.00 150.00 150.00 90.00 300.00	13.05 13.05 13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50 3915.00
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC 7c x 2.5 mm2 Cu PVC 10c x 2.5 mm2 Cu PVC 2c x 4 mm2 Cu PVC	Set Set Set Set Set Set Set Set Set	150.00 90.00 150.00 18.00 150.00 150.00 90.00	13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50 1957.50
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC 7c x 2.5 mm2 Cu PVC 10c x 2.5 mm2 Cu PVC	Set Set Set Set Set Set Set	150.00 90.00 150.00 18.00 150.00	13.05 13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC 7c x 2.5 mm2 Cu PVC	Set Set Set Set Set	150.00 90.00 150.00 18.00 150.00	13.05 13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90 1957.50
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC 2c x 300 mm2 AL PVC	Set Set Set Set	150.00 90.00 150.00 18.00	13.05 13.05 13.05 13.05	1957.50 1174.50 1957.50 234.90
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC 2c x 4 mm2 AL PVC	Set Set Set	150.00 90.00 150.00	13.05 13.05 13.05	1957.50 1174.50 1957.50
4c x 6 mm 2 Al PVC 2c x 6 mm2 AL PVC	Set Set	150.00 90.00	13.05 13.05	1957.50 1174.50
4c x 6 mm 2 Al PVC	Set	150.00	13.05	1957.50
1 2 c x 25 mm2 AL PVC		111.00	13.05	1448.55
1				
Erection, testing and commissioning of Cable Lugs and its termination for power and control cables. Part-		-		
5c x 2.5 mm2 Cu PVC	Numbers	90.00	195.75	17617.50
14c x 2.5 mm 2 Cu PVC	Numbers	37.50	195.75	7340.63
19c x 2.5 mm 2 Cu PVC	Numbers	45.00	195.75	8808.75
	Numbers	36.00	195.75	7047.00
4c x 4 mm2 Cu PVC	Numbers	150.00	195.75	29362.50
2c x 4 mm2 Cu PVC	Numbers	60.00	195.75	11745.00
10c x 2.5 mm2 Cu PVC	Numbers	150.00	195.75	29362.50
7c x 2.5 mm2 Cu PVC	Numbers	150.00	195.75	29362.50
2c x300 mm2 AL PVC	Numbers	9.00	195.75	1761.75
2c x 4 mm2 AL PVC	Numbers	150.00	195.75	29362.50
2c x 6 mm2 AL PVC	Numbers	67.50	195.75	13213.13
4c x 6 mm 2 Al PVC	Numbers	150.00	195.75	29362.50
2c x25 mm2 AL PVC	Numbers	54.00	195.75	10570.50
Erection, testing and commissioning of Cable glands for power and control cables. Part-1				
5c x 2.5 mm2 CU pvc	Kilometre	6.00	12565.70	75394.20
14c x 2.5 mm 2 CU pvc	Kilometre	6.00	16751.85	100511.10
19c x 2.5 mm 2 CU pvc	Kilometre	1.50	16751.85	25127.78
27c x 2.5 mm 2 CU pvc	Kilometre	1.50	22337.25	33505.88
Erection, testing and commissioning of 1.1 kV grade		3.30	13343.00	44091.90
'				44691.90
				60943.50
				81258.00 243774.00
•		_		48250.20
	power and control cables including laying, termination etc. Part-2  27c x 2.5 mm 2 CU pvc  19c x 2.5 mm 2 CU pvc  14c x 2.5 mm 2 CU pvc  5c x 2.5 mm2 CU pvc  Erection, testing and commissioning of Cable glands for power and control cables. Part-1  2c x25 mm2 AL PVC  4c x 6 mm 2 Al PVC  2c x 6 mm2 AL PVC  2c x 4 mm2 AL PVC  2c x 300 mm2 AL PVC  7c x 2.5 mm2 Cu PVC  10c x 2.5 mm2 Cu PVC  2c x 4 mm2 Cu PVC  4c x 4 mm2 Cu PVC	To x 2.5 mm2 CU PVC  10c x 2.5 mm2 CU PVC  Kilometre  2c x 4 mm2 CU pvc  Kilometre  4c x 4 mm2 CU pvc  Kilometre  Erection, testing and commissioning of 1.1 kV grade power and control cables including laying, termination etc. Part-2  27c x 2.5 mm 2 CU pvc  Kilometre  19c x 2.5 mm 2 CU pvc  Kilometre  14c x 2.5 mm 2 CU pvc  Kilometre  14c x 2.5 mm 2 CU pvc  Kilometre  5c x 2.5 mm2 CU pvc  Kilometre  Erection, testing and commissioning of Cable glands for power and control cables. Part-1  2c x25 mm2 AL PVC  Numbers  2c x 6 mm2 AL PVC  Numbers  2c x 4 mm2 AL PVC  Numbers  7c x 2.5 mm2 Cu PVC  Numbers  10c x 2.5 mm2 Cu PVC  Numbers  2c x 4 mm2 Cu PVC  Numbers  10c x 2.5 mm2 Cu PVC  Numbers  10c x 2.5 mm2 Cu PVC  Numbers  Erection, testing and commissioning of Cable glands for power and control cables. Part-2  27c x 2.5 mm2 Cu PVC  Numbers	To x 2.5 mm2 CU PVC  10c x 2.5 mm2 CU PVC  11c x 2.5 mm2 CU PVC  11c x 2.5 mm2 CU PVC  11c x 4 mm2 CU pvc  11c x 2.5 mm2 CU pvc  11c x 300 mm2 AL PVC  11c x 2.5 mm2 CU PVC  11c x 3.5 mm2 CU PVC  11c x 3.5 mm2 CU PVC  11c x 4 mm2 CU PVC  11c x 4 mm2 CU PVC  11c x 2.5 mm2 CU PVC  11c x 3.5 mm2 CU PVC  11c x 4 mm2 CU PVC  11c x 4 mm2 CU	7c x 2.5 mm2 CU PVC         Kilometre         6.00         13543.00           10c x 2.5 mm2 CU PVC         Kilometre         18.00         13543.00           2c x 4 mm2 CU pvc         Kilometre         4.50         13543.00           4c x 4 mm2 CU pvc         Kilometre         3.30         13543.00           Erection, testing and commissioning of 1.1 kV grade power and control cables including laying, termination etc. Part-2         Kilometre         1.50         22337.25           19c x 2.5 mm 2 CU pvc         Kilometre         1.50         16751.85           14c x 2.5 mm 2 CU pvc         Kilometre         6.00         16751.85           5c x 2.5 mm2 CU pvc         Kilometre         6.00         12565.70           Erection, testing and commissioning of Cable glands for power and control cables. Part-1         2c x25 mm2 AL PVC         Numbers         54.00         195.75           4c x 6 mm 2 Al PVC         Numbers         150.00         195.75           2c x 6 mm2 AL PVC         Numbers         150.00         195.75           2c x 300 mm2 AL PVC         Numbers         150.00         195.75           7c x 2.5 mm2 Cu PVC         Numbers         150.00         195.75           10c x 2.5 mm2 Cu PVC         Numbers         150.00         195.75 <td< td=""></td<>

Page 14 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

2		Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 2O ,15O, 30O, 60O) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories		4755.44		447011360.00
3	121030	Supply of single earth electrode.	Each	838.00	6300.00	5279400.00
4	121040	Supply of a number plate.	Numbers	838.00	217.80	182516.40
5	121050	Supply of a danger plate.	Numbers	838.00	217.80	182516.40
6	121060	Supply of a phase plate (set of RYB).	Set	838.00	217.80	182516.40
7	121070	Supply of circuit plate.	Set	838.00	517.50	433665.00
8	121080	Supply of vibration damper.	Numbers	10056.00	855.80	8605924.80
9	121090	Supply of anticlimbing device for all type of tower	Numbers	838.00	12146.20	10178515.60
10	121100	Supply of a bird guard	Each	838.00	1050.00	879900.00
11	121110	Supply of a 14-unit single suspension string.	Each	1758.00	2834.70	4983402.60
12	121120	Supply of a 14-unit duplicate suspension string.	Each	2398.00	4662.90	11181634.20
13	121130	Supply of a 15 unit single tension string.	Each	446.00	2442.00	1089132.00
14	121140	Supply of a 15 unit duplicate tension string.	Each	162.00	5032.50	815265.00
15	121150	Supply of ZEBRA ACSR conductor for 3 phase double circuit transmission line.	Kilometre	1308.00	282638.40	369691027.20
16	121160	Supply of ZEBRA ACSR conductor accessories for 3 phase double circuit transmission line.	Kilometre	218.00	74250.00	16186500.00
17	121170	Supply of groundwire.	Kilometre	218.00	55111.10	12014219.80
					Total	948426267.38
Schedule	Schedu	le 12-Schedule B-2				
		le 12-Schedule B-2 3 Phase Transmission Line (Erection)				
			Unit	Qty	Rate	Amount
Item- 12	220 KV, Item No	3 Phase Transmission Line (Erection)	<b>Unit</b> Kilometre	<b>Qty</b> 218.00	<b>Rate</b> 30195.55	
Item- 12 S No.	220 KV, Item No 131010	3 Phase Transmission Line (Erection)  Description of Item	Kilometre		30195.55	
Item- 12 S No.	220 KV, Item No 131010 131020	Description of Item  Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement	Kilometre cum	218.00 17186.89 931.35	30195.55 13261.50 3450.00	6582629.90 227923941.74 3213157.50
Item- 12 S No.	220 KV, Item No 131010 131020	Description of Item  Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)	Kilometre cum MT MT	218.00 17186.89	30195.55 13261.50	6582629.90 227923941.74
Item- 12 S No.	220 KV, Item No 131010 131020  131030 131040	Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV	Kilometre cum	218.00 17186.89 931.35	30195.55 13261.50 3450.00	6582629.90 227923941.74 3213157.50
Item- 12 S No.	220 KV, Item No 131010 131020  131030 131040	Description of Item  Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories	Kilometre cum MT MT	218.00 17186.89 931.35 4755.44	30195.55 13261.50 3450.00 9853.09	6582629.90 227923941.74 3213157.50 46855778.31 1445550.00 72277.50
Item- 12 S No.	220 KV, Item No 131010 131020  131030 131040  131050 131060	Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories  Erection of single earth electrode.	Kilometre cum  MT  MT  MT  MN  Each  Numbers  Numbers	218.00 17186.89 931.35 4755.44	30195.55 13261.50 3450.00 9853.09	6582629.90 227923941.74 3213157.50 46855778.31
Item- 12 S No.	220 KV, Item No 131010 131020  131030 131040  131050 131060 131070	Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories  Erection of a number plate.	Kilometre cum  MT MT MT Numbers	218.00 17186.89 931.35 4755.44 838.00 838.00	30195.55 13261.50 3450.00 9853.09 1725.00 86.25	6582629.90 227923941.74 3213157.50 46855778.31 1445550.00 72277.50
Item- 12 S No. 1 2 3 4	131030 131040 131050 131070 131080	Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories  Erection of single earth electrode.  Erection of a danger plate.	Kilometre cum  MT  MT  MT  MN  Each  Numbers  Numbers	218.00 17186.89 931.35 4755.44 838.00 838.00 838.00 838.00 838.00	30195.55 13261.50 3450.00 9853.09 1725.00 86.25 86.25	6582629.90 227923941.74 3213157.50 46855778.31 1445550.00 72277.50 72277.50
Item- 12 S No. 1 2 3 4	131030 131040 131050 131060 131070 131080 131090 131100	Designs & drawings including check survey Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20) Erection of reinforcement Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 2O ,15O, 30O, 60O) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories Erection of single earth electrode. Erection of a danger plate. Erection of a phase plate (set of RYB). Erection of vibration damper.	Kilometre cum  MT  MT  MT  Each Numbers Numbers Set	218.00 17186.89 931.35 4755.44 838.00 838.00 838.00	30195.55 13261.50 3450.00 9853.09 1725.00 86.25 86.25	6582629.90 227923941.74 3213157.50 46855778.31 1445550.00 72277.50 72277.50
Item- 12 S No. 1 2 3 4 4 5 6 7 8 9	131030 131040 131050 131060 131070 131080 131090 131100	Designs & drawings including check survey  Providing and casting in-situ cement concrete of trap metal of size 20 to 40 mm as applicable, Form boxes, fishing, coping and curing for 21 days complete as per drawing and direction of Engr. in-charge in the following grades for all type of tower. a) 1:3:6 (M-10) b) 1:1.5:3 (M-20)  Erection of reinforcement  Fabrication, Galvanising, Supply at site store of 220 kV D/C, MC towers (Viz. 20 ,150, 300, 600) of normal type, its extensions, including special towers for all type of crossings, with set of stubs, Superstructure, step bolts, U-bolts, D'Shackles, Chain links etc, complete in all respect as per approved design & drawings provided by the Purchaser. Note: This rate includes Supply at site store of Galvanised Bolts & Nuts with Spring Washers, Plain washers for 132 kV Line towers/Structures/Accessories  Erection of single earth electrode.  Erection of a danger plate.  Erection of a phase plate (set of RYB).  Erection of circuit plate.	Kilometre cum  MT  MT  MT  MN  Each  Numbers  Numbers  Set  Set	218.00 17186.89 931.35 4755.44 838.00 838.00 838.00 838.00 838.00	30195.55 13261.50 3450.00 9853.09 1725.00 86.25 86.25 86.25 86.25	6582629.90 227923941.74 3213157.50 46855778.31 1445550.00 72277.50 72277.50 72277.50 72277.50

Page 15 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

T						
13	131130	Erection of a 14-unit single suspension string.	Each	1758.00	3450.00	6065100.00
14		Erection of a14-unit duplicate suspension string.	Each	2398.00	6900.00	16546200.00
15	131150	Erection of a 15 unit single tension string.	Each	446.00	3450.00	1538700.00
16	131160	Erection of a 15 unit duplicate tension string.	Each	162.00	6900.00	1117800.00
17	131170	Erection of D/C (6 wires) 0.4 ZEBRA ACSR conductor on D/C tower.	Kilometre	218.00	148500.00	32373000.00
18	131180	Erection of ZEBRA ACSR conductor accessories for 3 phase double circuit transmission line.	Kilometre	218.00	9900.00	2158200.00
19	131190	Erection of groundwire.	Kilometre	218.00	25875.00	5640750.00
20	131200	Erection of groundwire accessories.	Kilometre	218.00	17250.00	3760500.00
					Total	358835182.45
Schedule	Schedul	e 13-Schedule 9000				
Item- 13	Site Fac	ilities				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	051010	Providing site offices for Employer with Contractor's material, Labour, Tools and Plant, Equipment etc. including provision of Water Supply, Drainage, Power arrangements, office maintenance as per the details mentioned in clauses 3.1 to 3.2.8 & 3.5 to 3.5.2 of Chapter 3 (Site Facilities for the Employer and the Engineer) of Section 5 (Work's Requirement) of Tender Documents. Note 1: This item is provided with the contention that new site offices will be constructed for this purpose and 75% payment of the accepted rates will be made after making available functional office, balance 15% payment shall be made at the end of the completion period and the remaining 10% will be paid after clearance of site by the contractor. Note 2: Alternatively if suitable accommodation is available on hire basis at suitable location acceptable to the employer, the contractor can arrange the same under the item but in such a case the payment shall be regulated as below. (a) 10% payment shall be made on completion of one month from the date of making available the office fit for functioning. b) Remaining 90% payment shall be paid in equal monthly instalments that is (0.9xQuoted rate) / (Stipulated Completion period in months + defect liability period in months). Note 3: In case stipulated period gets extended, payment on monthly basis, under this item, in such extended period, shall be made as under; (i) in case of new construction @ [(54% of Quoted rate) / (Stipulated Completion period in months + defect liability period in months)] per Sq.m. of Plinth area. (ii) in case of accommodation on hire @ [(90% of Quoted rate) / (Stipulated Completion period in months)] per Sq.m. of Plinth area.		139.00	17997.00	2501583.00
2	051020	Providing Furniture as given under clauses 3.3, 3.3.1 of Chapter 3 (Site Facilities for the Employer) of Section 5 (work's Requirement) of Tender Documents. Note: Payment shall be made @ 75% of the accepted rate after making available the furniture items in functional office, balance 15% payment shall be made at the end of the completion period and the remaining 10% will be paid after clearance of site by the contractor.		1.00	1397828.00	1397828.00
		Providing Road Vehicle mentioned below for the use of Engineer/Employer as per the Conditions mentioned in Clause 3.4.3, i.e 3.4.3.1 to 3.4.3.3 of Chapter 3 (Site Facilities for the Employer and the Engineer) of Section 5 Work's Requirement) of Tender Documents.				

Page 16 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

3	051031	INNOVA, MAHINDRA XUV500 or similar	Vehicle- Month	24.00	75133.00	1803192.00
4	051032	BOLERO, SCORPIO, ERTIGA, MARAZZO or similar	Vehicle- Month	96.00	64649.00	6206304.00
5	051040	Providing Computers with software, Printers and other office equipment as given under clause 3.6 of Chapter 3 (Site Facilities for the Employer) of Section 5 (work's Requirement) of Bidding Documents excluding (d) Large Format Plotter. Note: (i) Payment shall be made @ 85% of the rate after making available the office equipment in functional condition, (ii) Next 10% of the rate shall be paid at the end of the completion period. (iii) The remaining 5% of the rate shall be paid after the equipment is taken back by the contractor and the site is cleared by the contractor.			1248970.00	1248970.00
					Total	13157877.00
-	-	le 14-S&T Group- C				
Item- 14 S No.	Item	n items Supply  Description of Item	Unit	Otv	Rate	Amount
3 NO.	No	Description of item	Oilit	Qty	nate	Amount
1	141010	Supply of Underground jelly filled , 0.9 mm dia, 6 Quad cable	Kilometre	9.00	321771.00	2895939.00
2	141020	Supply and jointing of Quad cables with theromoshrinkable jointing kits	Numbers	13.00	5354.00	69602.00
3	141030	Supply of RCC pipes 150mm dia, 2 Mtr long along with collars	Metre	67.00	156.00	10452.00
4	141040	Supply of DWC pipe of size 120 mm outer dia & 102 mm inner dia.	Metre	167.00	250.00	41750.00
5	141050	Supply of SPLIT DWC pipe of size 200 mm outer dia & 175 mm inner dia.	Metre	167.00	311.00	51937.00
6	141060	Supply of 24 fibre armoured optic fibre cable as per RDSO Specification No. IRS: TC 55-2006,Rev.1 with Amendment 1.1 and Amendment 2 or latest		9.00	80168.00	721512.00
7	141070	Supply DTMF Based Head quarter Equipment (2/4 wire) with all accessories for controle office as per RDSO Spec.No.IRS TC @58<47@2007 or latest including 12 V power supply unit to suit RDSO spec. no.IRS. TC. 72/97 with latest amendment and to be procured from RDSO approved firms only.		1.00	21445.00	21445.00
8	141080	Supply of 4 Wire way station Equipment with DTMF signalling to RDSO Spec.No.IRS TC@58<47@2007 or latest with telephone to Spec.TC@46&47@97 or latest Tummala Make or similar.		10.00	6310.00	63100.00
9	141090	Supply of Power supply for telecom installation at way side equipment as per tec. Spec. IRS: TC-72/97 Amdt. 1 OR latest.		10.00	4938.00	49380.00
10	141100	Supply of Portable Emergency telephone 4 wire as per spec. no. IRS TC 75-99 with amendment 1,2 or latest.	Numbers	1.00	3006.00	3006.00
11	141110	Supply of Emergency socket Box with socket six pin flat to RDSO spec no. IRS TC 42/87Amdt 1 or latest	Numbers	5.00	1882.00	9410.00
		VF Tapping Transormers as per the RDSO Spec. IRS TC 22-76 or latest .				
12	141121	1120:1120 Isolation	Numbers	40.00	790.00	31600.00
13		1120:470 6 Quad to Block equipment	Numbers	20.00	790.00	15800.00
14	141130	Supply of Permananently lubricated HDPE pipe 40 / 33 mm dia. As per TEC specification no. GR/CDS-08/02 Nov 2004 with latest amendments if any suitable for armoured 24 fibre OFC cable including its accessories like plastic coupler, end plug, cable sealing plug and end cap etc as required for the OFC system based on survey report.		9.00	66275.00	596475.00

Page 17 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

15	141140	Supply of FCPC to SCPC 10 meter long patch cords with o db adaptor as TEC spec G/OJC-01/03 JAN 99 or latest RDSO specification.		3.00	2008.00	6024.00
16	141150	Supply of managed expendable rack type STM-I ADM I.I.I as per technical spec No. TEC GR NO GR/SDH 04/02 Mar 02 amendment 1,2,3 & 4 or latest RDSO specilication with STM-1 aggregate interface, 21 EIS and 4 numbers of 10/100 base T Ethemet port order wire, power supply unit, sub rack installation material and accessories manual etc. The equipment should be fully wired for its ultimate capacity and provide redungency for power supply and synchronisation and other detail as given in chapter 3 ( model - J 100 MLT)		1.00	210031.00	210031.00
17	141160	Supply of SMPS battery chargers for telecom use 48V, 25 Amp in N+1 configuration using 3 modules of 25 Amps (FR/BC) suitable for 200 AH LM Batteries with lighting and surge protection as per Specfication no. No RDSO/SPN/TC/23/99 Version 4 or latest RDSO specification with automatic switching between the modules N=2		1.00	75198.00	75198.00
18	141170	Supply of 200 AH capacity LM batteries as per specification no IRS/S/88/2004 or latest: 24 no at each station with required no of porcellin insulator. The suitable wooden rack for keeping batteries shall also be supplied and it should be painted with two coats acid resistant paints		1.00	67943.00	67943.00
19	141180	Blowing of armoured Optical fibre cable into duct by using blowing machine and associated works. Before blowing the duct integrity shall be tested. In any dfect shall be found during duct integrity test, the entire length of HDPEduct for one chamber to another chamber is to be replaced.		9.00	13493.00	121437.00
20	141200	Supply of Krone termination Box 20 pair with mounting arrangements	Numbers	10.00	1488.00	14880.00
21	141210	Supply of PVC switch board cable, 10 pair twisted, conductor of size 0.63mm. dia annealed copper conforming to IRS-TC-24/91 or ITD 1138 - 10(ten) pair. Inspection by Consignee.		333.00	28.00	9324.00
22	141220	Supply of PVC switch board cable, 5 pair twisted, conductor of size 0.63mm. dia annealed copper conforming to IRS-TC-24/91 or ITD 1138 - 5(five) pair. Inspection by Consignee.		333.00	18.00	5994.00
23	141230	Supply of 20 Pair Wago Make Terminal block(with disconnection & reconnection facility) duly fitted in C.T. box of approved quality, suitable for termination of 0.9mm wire. Inspection by Consignee.		20.00	2368.00	47360.00
24	141240	Supply of Jumper Wire Red & White 0.6mm dia. Inspection by consignee.	Metre	333.00	7.00	2331.00
25	141250	Supply of Digital Earth Tester Make :Rishabh SEW Model No. ST-1520 or similar; Inspection by representative of CSTE/Con/BSP		1.00	9460.16	9460.16
26	141260	Supply of digital multimeter Fluke make model 85 or similar; Inspection by RVNL Engineer	Numbers	1.00	14682.00	14682.00
27	141270	Supply of Digital Insulation Tester , voltage multirange (100/250/500/1000V DC), Insulation resistance 10Kohms to 999 Megaohms make RISHABH or similar. Inspection by representative by RVNL		1.00	5196.00	5196.00
28	141280	Supply of Optical fibre joint closure for straight through joint with modification for 24 fibre OFC as per TEC Specification. No. GR/OJC-02/02 SEP 2003 (with latest amendment) complete with all accessories. Inspection by RITES.		7.00	2879.00	20153.00
29	141290	Supply of Tool Kit (Details as per Annexure- VI)	Numbers	1.00	16400.00	16400.00

Page 18 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

					Total	5207821.16
Schedule	Schedu	le 15-S&T Group- D				
Item- 15	Telecon	n items Erection				
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	151010	Excavation of trench 1.0 MTR deep 300 mm wide at the bottom along Railway line in all types of normal soil including cleaning of bushes etc. This work include back filling trenches by excavated soil and ramming after laying required quantity HDPE pipe and cable as per schedule and instructions of Engineer in charge of site, along with supply and fixing of cable route marker.		7.00	68172.00	477204.00
2	151020	Excavation of cable trench of 1 m. depth & 300 mm. wide across the track crossing, road crossing, level crossing, platform & refilling.		0.10	70030.00	7003.00
3	151030	Installation and commissioning of 4 wire way station equipments, power supply unit at SP/SSP/Station/TSS/AEN/PWI/SI offices/Residences. The installation of way station equipment and power supply unit (supply covered under a separate item) shall be mounted on a MS angle rack. All the materials for installation, commissioning of 4 W equipment and power supply unit shall be provided by contractor.		1.00	3518.00	3518.00
4	151040	Installation of emergency socket box including socket on the rail post in the section and yard at every one km. distance as per tapping chart supplied by the survey team. This will include wiring and termination of quad cable on the socket box mounted at 1 m height, clamped with 2 nos. U-Clamps, provision of concrete foundation of rail post in such a way that the rail post is one meter above the earth level. The concreting shall be in ratio of 1:3:6 of cement, sand and stone chips. The contractor shall jointly test with RVNL engineer for its satisfactory operation. This includes painting of Emergency socket post with alternate yellow and black strip of 6" width and painting of the socket box with grey colour paint and painting of arrows on the telephone posts/ cable markers to show the nearest Emergency socket as instructed by the engineer at site. Rail posts and MS pipes of required lengths for fixing Emergency sockets will also be supplied and installed by the Contractor.		5.00	2804.00	14020.00
5	151050	Supply and installation of OFC cable joint enclosure as per TEC No. G/OJC-01/03 Jan 99 or latest and splicing of optical fibre cables (24 Fibre) and testing.		3.00	13050.00	39150.00
6	151060	Excavation for Jointing pit and provision of joint chamber of 1.2 mtr dia of 60 cm height with 2 piece cover on top and bottom cover with holes for drainage ( reinforcement drawing will be as per technical specification ) .This includes water cooling of chamber , backfilling and ramming of trench after laying and consolidated of soil as well as disposal of soil as per plan as advised by site engineer.		7.00	5240.00	36680.00

Page 19 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

T	T		ı	1		
7	151070	Supply and installation testing and commission of 2 Mb programmable primary digital drop insert multiplexer with conference facility as per specifications IRS: TC/68/2012 Rev0 Amendment 1 or latest RDSO specification and other stipulations of tender document.fully wired for 30 channels complete with power supply unit , remote control supervision facility and all other accessories installation materials, manuals etc.It should have facility to rrangedte data interface cards in multi drop mode and should be able to support card needed for video conference. Installation of managed expandable rack and krone type MDF are covered in the scope of the work .		1.00	139363.00	139363.00
		Supply and commission of interface cardes for 2 Mb primary drop MUX of item above				
8	151081	4 wire , E & M, VF interface cards ( 8 Circuits per cards)	Numbers	1.00	46336.00	46336.00
9	151082	Subscriber loop interface cards ( 6 Circuits per cards)	Numbers	1.00	41472.00	41472.00
10	151083	ISDN interface (Two BRI ports per cards)	Numbers	1.00	29814.00	29814.00
11	151084	Exchange loop interface cards ( ( 6 Circuits per cards)	Numbers	1.00	36200.00	36200.00
12	151085	G 703, 64 kbps data interface cards with a minimum of 8 portes per cards	Numbers	1.00	44436.00	44436.00
13		Supply Installation testing & commissioning including earthing of 42 u 19" covered racks for housing SDH and P-MUX equipments, DDF,FMS,MDF using krone module etc. Complete with all fittings, wired and equipped with integrated protection modules for all channels and adequte numbers of cooling panels, AC/DC power supply distribution panel, U- link panels and other hardware like runway, ladder etc. It should be possible to lock all the equipments with only order wire telephone remaining outside the rack. The rack should be APW President Rittal make. The components of the rack are specified below Broad description of rack is detailed below.Rack size 2200 (mm)H x 600 (mm) W x 600 (mm) D. Fixed side panels 42 U X 600 (mm) D front glass door plain 42 U X 600 (mm) D rear MS door plain 42 U X 600 (mm) D leveling screws - 4 numbers. Fan directly mounted on top 48 V DC 90 CFM - 2 Nos.Earth connectivity Kit 1 No. Cable manager with cable loops -2 nos		1.00	53982.00	53982.00
14	151100	Supply and installation of rack mounted 24 flbre Fibre Distribution Management System part no FMS - 1U 24 FS 24 FP Raychem make including 24 Nos 0.2 db SC/PC adaptors and 24 Numbers. 900 micron 1.5 meter SCPC Pigtails RDSO Specification no. : RDSO/SPN/TC/037-2000(Rev.3) or latest.		1.00	27673.00	27673.00
15	151110	Supply and Installation of IPMS for Krone modules	Numbers	10.00	138.00	1380.00
16	151120	Supply & Placing of second class bricks of size 225X100X75 mm (9 Bricks per meter) horizontally breath wise in the trench after covering the laid cable with soft soil of 50 mm thickness	Numbers	66667.00	7.00	466669.00
17	151130	Location Survey of cable route and preparation of tentative and final cable route plan as per approved formate in this section including supply of final route plan after the cables are laid and commissioned indicating clearly the exact position of the cable, joints and other critical items with refernce to central line of the nearest track in 12(twelve) Nos hard bound copies of white bond paper of maximum A3 Size (Well Documented & bound with plastic covers).		8.00	745.00	5960.00

Page 20 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

		drums to be retained by the contractor. The cable drums with unused cable at site to be returned by the contractor from site to Stores depot.			
20	151200	Laying of Quad Cable, PIJF cable of different sizes, power cable, signalling cable of different size in the excavated trench. Wherever several cables of different categories have to be laid in the same trench/path, the provision of seperation of various cable should be as advised by the site incharge of the RVNL. Empty cable	9.00	8195.00	73755.00
19	151190	Cutting the chase upto a depth of minimum 500mm.and smoothening of inside surface in concrete and beds of rocks & concreting (1:2:4) of the chase after cable laying/ placing HDPE pipe upto the ground level as per Drg./Instruction of Railway's site engineer. All the materials like bricks, sand, cement and chips 15-25mm size etc. shall be supplied by the contractor within the same cost.	333.00	335.00	111555.00
18		Excavation of trenches including clearing of roots of trees etc. in hard/rocky soil by chiseling up to a depth of 0.9 to 1.0 M and width 0.3 M at the bottom, supply and placing RCC hume pipe section as per drawing on sieved soil of 30mm over cable / HDPE pipe and concreting through - out the length upto a layer of 75mm approximately (1:2:4) as advised by site engineer. Then back filling the trench by digging and carrying earth from a lead of maximum 30 Mtrs. and then ramming of soil after cable laying/placing HDPE pipe. This includes supply of RCC hume pipe sections,cement,sand,15-25mm. chips etc. for concreting.	1.00	208600.00	208600.00

#### 4. ELIGIBILITY CONDITIONS

Important: All documents uploaded and remarks / confirmation entered by the bidders against any eligibility condition shall be opened as part of technical bid only

#### **Special Financial Criteria**

	·			Documents Uploading
1	Please refer clause 2.2 of section 3 (Evaluation & qualification criteria (EQC)) of Volume-I	No	No	Allowed (Mandatory)

#### **Special Technical Criteria**

	'			Documents Uploading
1	Please refer clause 2.3 of section 3 (Evaluation & qualification criteria (EQC)) of Volume-I	No	INo	Allowed (Mandatory)

#### 5. COMPLIANCE

**Important :** All documents uploaded and remarks / confirmation entered by the bidders against any compliance condition shall be opened as part of technical bid only.

#### Commercial-Compliance

S.No.	•	Confirmation Required		Documents Uploading
1	Please refer bid documents	No	INO	Allowed (Mandatory)
	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)

Page 21 of 22 Run Date/Time: 11/07/2023 18:27:25

Tender No: RVNL-NGP-DPS-SECR-PKG-2 Closing Date/Time: 25/08/2023 11:00

#### **General Instructions**

	S.No.		Confirmation Required		Documents Uploading
Ī	1	Please refer bid documents	No	No	Not Allowed

#### **Technical-Compliances**

S.No.	· ·	Confirmation Required		Documents Uploading
1	Please refer bid documents	No	Nο	Allowed (Mandatory)

#### **Undertakings**

S.No.		Confirmation Required		Documents Uploading
1	Please refer bid documents	No	No	Not Allowed

#### 6. Documents attached with tender

S.No.	Document Name	Document Description
1	Volume-1.pdf	Volume I
2	Volume-2PKG-2.pdf	Volume II

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: SALIK RAM

**Designation:** CPM/RE

Page 22 of 22 Run Date/Time: 11/07/2023 18:27:25