

ESP-001-
2A Rev.00



PROJECT ENGINEERING & SYSTEMS DIVISION
(Annexure-3 Scope of Work for Birlanagar-MP Border
(Chambal River Bridge Starting))

Std. / Doc. Number	
PY-AS-4-M121-2001-01	
Rev. No.	00
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Annexure-3

Scope of Work for Birlanagar-MP Border



1.0 ELECTRIFICATION OF EXISTING RAILWAY LINE

1.1 OVERHEAD EQUIPMENT (OHE)

Supply, erection, testing and commissioning of 25 KV, 50 Hz, AC Overhead equipment including Structures and all ancillary equipments but excluding design and foundations as per following details along with PTFE neutral section, insulated catenary wire under over line structure, Height Gauges at level crossing gate, Protective screens on over line structure, Structure arrangement on bridge piers, feeder wire, all types of caution, warning, instruction and protection boards at required locations, anti-theft charging arrangement, Traction Station Working Rule along with sectioning diagram at required locations (TPC, Traffic control, OHE Depot, AEE office etc.), Safety items (i.e. key box, First aid box, shock treatment chart, Collar ring, men at work board etc.) at required locations and all necessary documentation for EIG sanction and CRS Inspection. Breakdown attention till CRS inspection. Supply of contact and catenary wire is excluded from the scope of contractor. It will be a free issued to contractor by the purchaser from **Purchaser stores location as mentioned in NIT.**

1.1.1 Regulated conventional type OHE with normal contact wire height 5.80 Meter

SN	From Station to Station	km to km	Total Track km	Remarks
1	Birlanagar-MP border(Chambal river bridge start)	Refer Annexure-2	109 (Approx)	

1.1.2 Regulated high rise type OHE with normal contact wire height 7.57 Meter

SN	From Station to Station	km to km	Total Track km	Remarks
1	Birlanagar-MP border(Chambal river bridge start)	--	0	

1.1.3 Regulated Tramway type OHE with normal contact wire height 5.80 meter

SN	From Station to Station	km to km	Total Track km	Remarks
1	Birlanagar-MP border(Chambal river bridge start)	a. Bhind 1307/400-1307/780 b. Bhind 1305/750- 1306/030 c. Soni 1282/400-1282/680 d. Gohad Road 1266/850-1267/130 e. Sanichara 1242/130-1242/380	1.48 (Approx)	

1.2 25 KV/230V Auxiliary transformer stations at LC gates & stations

Supply, Erection, testing and commissioning of single phase Auxiliary Transformer Station of different capacity as per following details, along with anti-climbing device, LV box, DO fuse, CLS panels, cabling work from 25KV OHE to AT and AT to LV box complete with all structures, fittings and other termination accessories etc. and all types of caution, warning, instruction, protection boards and



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location/Name boards and all necessary documentation for EIG sanction and CRS Inspection. Breakdown attention till CRS inspection. Cabling between LV cable box to CLS panels are excluded from bidder. The supply of auxiliary transformer and LV power cables only excluded from the scope of contractor which shall be free issued to the contractor by the purchaser.

5 KVA AT for LC Gate

SN	Location/LC Gate No.	Capacity	Quantity of AT	Remarks
(A)	Birlanagar- MP border(Chambal river bridge start)			
NIL				

10 KVA AT requirements

S.N.	Location	capacity	Quantity of AT	Remarks
(A)Birlanagar- MP border(Chambal river bridge start)				
1	Bhadroli	10 KVA	01 No.	
2	Sanichara		01 No.	
3	Rithaura Kala		01 No.	
4	Malanpur		01 No.	
5	Nonera		01 No.	
6	Rayatpura		01 No.	
7	Gohad Road		01 No.	
8	Sodha Road		01 No.	
9	Soni		01 No.	
10	Ashokhar		01 No.	
11	Itehar		01 No.	
12	Bhind		01 No.	
13	Phuphu		01 No.	

25 KVA AT requirements

SN	Location/LC Gate No.	Capacity	Quantity of AT	Remarks
(A)	Birlanagar- MP border(Chambal river bridge start)			
NIL				

1.3 Modification of HT power lines and crossings (raising of height)

SN	Item	Nominal Voltage level	Single circuit/Double Circuit	No of phases	Designated current carrying capacity	Quantity	Remarks
1.	Track crossing	NIL					
2.	Along the Track	NIL					



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1.4 Modification of HT power lines and crossings (replacement by UG cabling)

SN	Item	Nominal Voltage level	Single circuit/ Double Circuit	No of phases	Designated current carrying capacity	Quantity	Remarks
1	Track crossing	33 KV	Single Circuit	3 Phase	340 Amp	4	Cable to be provided 3 x 300 sq.mm (One spare cable also to be provided of the same length and size)
		11 KV	Single Circuit	3 Phase	270 Amp	1	Cable to be provided 3 x 185 sqmm (One spare cable also to be provided of the same length and size)
2	Along the Track	11 KV	Single Circuit	3 Phase	270 Amp	(Shall be informed later)	Cable to be provided 3 x 185 sqmm (One spare cable also to be provided of the same length and size)

1.5 Modification of LT power lines and crossings (replacement by UG cabling)

SN	Item	Nominal Voltage level	Single circuit/Double Circuit	No of phases	Designated current carrying capacity	Quantity	Remarks
1.	Track Crossing	Nill					
2.	Along the track	440 V	Single Circuit	3 Phase, 4 wire	125 A	4 locations (total length 700 meter)- Approx	1. In platform area or concrete structure the cable may be required to be laid by insertion of HDPE pipe by boring method. 2. One spare cable also to be provided of the same length and size.

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			230 V	Double Circuit	2 Phase, 4 wire	40 A	5 Locations (total length 2500 meter)- Approx	PF area lighting cable 1. In platform area or concrete structure the cable may be required to be laid by insertion of HDPE pipe by boring method. 2. One spare cable also to be provided of the same length and size
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1.6 Modifications of existing OHE electrical works

OHE, removal of brackets, cutting of masts, dismantling and removal of existing auxiliary transformer. At following locations the proposed electrified lines will be connected to existing electrified lines and may need modification in existing OHE:

SN	Station	Approx qty
1	Birlanagar	1 TKM

1.7 Modification of Platform shed

Modification of platform shed up to specified height including material required for this work, adhering cover over platform drawing in connection with railway electrification works. The Platform sheds are not required to be lifted. Existing shed are to be modified as per SOD, height required is 4110mm from Rail level at a horizontal distance 1676mm from centre of track. The existing roof is made of AC/Metallic sheets. The height of Platform sheds is to be raised to 4110mm by providing suitable chair or any other suitably modification of truss of platform shelter. The bidder will have to provide working drawing for above modification.

SL. No.	Location	Length of shed
1	Bhind	105m