

ESP-001-
2A Rev.00



PROJECT ENGINEERING & SYSTEMS DIVISION
Annexure-3
Scope of Work for MP Border-Etawah & Etawah-Mainpuri

Std. / Doc. Number	
PY-AS-4-M121-2001-01	
Rev. No.	00
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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	(a) MP Border(Chambal river bridge start)-Etawah	Refer Annexure-2	19	
2	(b) Mainpuri-Etawah	Refer Annexure-2	54	

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	(a) MP Border(Chambal river bridge start)-Etawah	--	0	
2	(b) Mainpuri-Etawah	--	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	(a)Birlanagar- Etawah		0	
2	(b)Mainpuri -Etawah	1259/900-1260/400	0.5 (Approx.)	

1.2 25 KV Auxiliary transformer stations

Design, supply, erection, testing and commissioning of single phase Auxiliary Transformer Station of different capacity as per following details, complete with all structures and fittings etc. along with anti-climbing device and all types of caution, warning, instruction, protection boards and location/Name boards, junction box and all necessary documentation for EIG sanction and CRS Inspection. Breakdown attention till CRS inspection.

**10 KVA AT requirements**

S.N.	Location	capacity	Quantity of AT	Remarks
(A)Birlanagar-Etawah Gr.239				
1	Udi	10 KVA	01 No.	

25 KVA AT requirements

SN	Location	capacity	Quantity of AT	Remarks
1	Udi Road	25 KVA	01 No.	

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					

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	33KV	Single Circuit	3Phase	340Amp	NIL	
		11 KV	Single Circuit	3 Phase	270 Amp	01	1. Cable to be provided 3 x 185 sqmm (One spare cable also to be provided of the same length and size)



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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)
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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	NIL					
2.	Along the track	440 V	Single Circuit	3 Phase, 4 wire	125 A	4 locations (total length 600 meter)	1. In platform area or concrete structure the cable may be required to laid by insertion of HDPE pipe by boring method. 2. One spare cable also to be provided of the same length and size
		230 V	Double Circuit	2 Phase, 4 wire	40 A	3 Locations (total length 1500 meter)	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

1.6 Modifications of existing 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	Etawah	1.5 TKM

1.7 Modification of Platform shed



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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	Mainpuri	105m