

ESP-001-
2A Rev.00



PROJECT ENGINEERING & SYSTEMS DIVISION

Annexure-3

Scope of Work for Shikohabad-Farrukhabad

Std. / Doc. Number

PY-AS-4-M121-2001-01

Rev. No.

00

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1.0 ELECTRIFICATION OF EXISTING RAILWAY LINE

1.1 OVERHEAD EQUIPMENT (OHE)

Design, supply, erection, testing and commissioning of 25 KV, 50 Hz, AC Overhead equipment including Foundations, Structures and all ancillary equipment etc 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, construction of contractor's depot & sidings and all necessary documentation for EIG sanction and CRS Inspection. Breakdown attention till CRS inspection.

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	Farukhabad-Shikohabad	Refer Annexure-2	135	

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	Farukhabad-Shikohabad	--	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	(c)Farukhabad-Shikohabad	Shikohabad-1213/100-700 1213/100-700 1213/100-700 1213/100-700 1213/250-750 Farrukhabad-1318/150- 1318/650	2.8	

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.



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5 KVA AT requirements for LC Gate

SN	Location/LC Gate No.	Capacity	Quantity of AT	Remarks
(C)	Farrukhabad-Shikohabad			
1	LC-41C	5 KVA	1	
2	LC-6B	5 KVA	1	
3	LC-8A	5 KVA	1	
Total			3	

10 KVA AT requirements

S.N.	Location	capacity	Quantity of AT	Remarks
Farrukhabad-Shikohabad Gr.241				
1	Shikohabad Jn.	10KVA	01 No.	
2	Buda Bharthara-Halt		01 No.	
3				
4			01 No.	
5	Takha		01 No.	
6	Kosma		01 No.	
7	Tindauli-Halt		01 No.	
8	Mainpuri		01 No.	
9	Bhon Gaon		01 No.	
10	Takhrau		01 No.	
11	Mota		01 No.	
12	Pakhna		01 No.	
13	Baba LakshmanDasPuriHalt		01 No.	
14	Nibkarori	10KVA	01 No.	
15	Ugarpur		01 No.	
16	Shrimad DwarikapuriHalt		01 No.	
17	Farrukhabad Jn.		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
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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	33 KV	Single Circuit	3 Phase	340 Amp	6	Cable to be provided 3 x 300 sqmm (One spare cable also to be provided of the same length and size)
		11 KV	Single Circuit	3 Phase	270 Amp	02	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	NIL					



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2.	Along the track	440 V	Single Circuit	3 Phase, 4 wire	125 A	6 locations (total length 800 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	7 Locations (total length 3500 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	Farukhabad	1 TKM
2	Shikohabad	1 TKM