

Commercial Schedule :- Annexure -I A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
Name of work:- Construction of LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
1.00	Tower: Fabrication, galvanising and supply of various types of towers (including special towers), & its body / leg (equal & unequal) extensions (complete) including stubs and hangers, D-shackles, Bird Guard, U-Bolt, Pack washer etc.						
1.01	High Tensile Steel	924.00	MT	88,000	4,277	92,277	852,63,948
1.02	Mild Steel	1025.00	MT	86,000	4,180	90,180	924,34,500
2.00	Supply of Bolts & Nuts for towers and stubs (including step bolts & nuts and anti theft bolts & nuts, Spring Washers Etc. )	81.00	MT	1,10,000	4,048	1,14,048	92,37,888
3.00	Supply of Earthing material of Towers						
3.01	Pipe Type	80	Set	9,306	342	9,648	7,71,840
3.02	Counterpoise Type	34	Set	4,541	167	4,708	1,60,072
4.00	Supply of following Tower Accessories						
4.01	Danger Plate	114	Nos.	456	17	473	53,865
4.02	Number Plate	114	Nos.	456	17	473	53,865
4.03	Phase Plate (Set of three)	228	Set	760	28	788	1,79,550
4.04	Circuit Plate	228	Nos.	760	28	788	1,79,550
4.05	Anti Climbing Device (Fork Type)	114	Nos.	10,127	373	10,500	11,97,000
5.00	Supply of following items for Aviation Requirements **						
5.01	Span Marker	120	Nos.	1000	37	1,037	1,24,440
5.02	Obstruction lights(To be proved as per IS:5613)-a) 1 Medium + 2 Low intensity	114	sets	15000	552	15,552	17,72,928
6.00	Design, manufacture and supply of following line material. ***11/kv 120KN						
6.01	Disc Insulators / Long Rod Insulators/ Composite Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	96,30,734	4,58,423	100,89,157	100,89,157
	*** Disc Insulator for 1 Lot consists of 13064 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 737.20 and Unit F&I is Rs 35.09 OR Long Rod Insulator for 1 Lot consists of 568 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 16995.52 and Unit F&I is Rs 807.08. OR Composite Long Rod Insulator for 1 Lot consists of 568 in String and the Unit Ex Works Supply Rate of 1 String Composite Long Rod Insulator is Rs 16995.52 and Unit F&I is Rs 807.08.						

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Name of work:- Construction of LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
7.00	<b>Design, manufacture and supply of following line material. 11/kv 160KN</b>						
7.01	Disc Insulators / Long Rod Insulators/ Composite Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	272,46,495	12,96,933	285,43,428	285,43,428
	*** Disc Insulator for 1 Lot consists of 31680 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 860.05 and Unit F&I is Rs 40.94 OR Long Rod Insulator for 1 Lot consists of 1320 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 20641.28 and Unit F&I is Rs 982.53 OR Composite Long Rod Insulator for 1 Lot consists of 1320 in String and the Unit Ex Works Supply Rate of 1 String Composite Long Rod Insulator is Rs 20641.28 and Unit F&I is Rs 982.53						
8.00	GSS Earthwire- size 7/3.66 mm	35.5	Kms.	50,637	1,863	52,500	18,63,750
9.00	ACSR Moose Conductor	424	Kms.	3,18,941	11,418	3,30,359	1400,72,216
10.00	<b>Hardware Fittings</b>						
10.01	Single suspension H/W fittings conventional envelop type complete set suitable for ACSR 'MOOSE' conductor for pilot string (suitable for 1x23, 120 KN Disc Insulators or 1x3 Long Rod Insulators).	136	Sets	15,000	714	15,714	21,37,104
10.02	Single 'I' suspension H/W fittings armour grip type complete set suitable for Twin ACSR'MOOSE' conductor (suitable for 1x23, 120 KN Disc Insulators or 1x3 Long Rod Insulators).	288	Sets	15,000	714	15,714	45,25,632
10.03	Double 'I' suspension H/W fittings armour grip type complete set suitable for Twin ACSR'MOOSE' conductor (suitable for 1x23, 120 KN Disc Insulators or 1x3 Long Rod Insulators).	72	Sets	17,053	812	17,865	12,86,289
10.04	Single Tension H/W fittings compression type for Twin 'MOOSE' conductor (suitable for 1x24, 160 KN Disc Insulators or 1x3 Long Rod Insulators).	1	Sets	30,000	1,428	31,428	31,428

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Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1		2	3	4	5	6	7
							8
10.05	Double tension H/W fittings compression type for Twin 'MOOSE' conductor for pilot string (suitable for 1x24, 160 KN Disc Insulators or 1x3 Long Rod Insulators).	660	Sets	38,425	1,829	40,254	265,67,640
11.00	<b>Accessories for ACSR Moose Conductor</b>						
11.01	Mid Span Compression Joint for ACSR Moose conductor	350	Nos.	954	35	989	3,46,150
11.02	Repair Sleeve for ACSR Moose conductor	450	Nos.	329	12	341	1,53,450
11.03	Vibration dampers for 'MOOSE' conductor	4080	Nos.	1,019	38	1,057	43,12,560
11.04	Line spacers with retaining rod for Twin 'MOOSE' conductor	4000	Nos.	539	20	559	22,36,000
11.05	Spacers for jumpers without retaining rod for twin 'MOOSE' conductor	912	Nos.	999	37	1,036	9,44,832
12.00	<b>Accessories for Earthwire</b>						
12.01	Vibration Damper for 7/3.66 mm GS Earthwire	340	Nos.	500	18	518	1,76,120
12.02	Mid Span Compression Joint for 7/3.66 mm GS Earthwire	35	Nos.	394	15	409	14,315
12.03	Repair Sleeve for 7/3.66 mm GS Earthwire	30	Nos.	197	7	204	6,120
12.04	Suspension Clamp with flexible Copper Bond for 7/3.66 mm GS Earthwire.	60	Nos.	691	25	716	42,960
12.05	Tension Clamp with flexible Copper Bond for 7/3.66 mm GS Earthwire	110	Nos.	762	28	790	86,900
13.00	<b>Power Connector</b>	12	Nos.	3,500	129	3,629	43,548
14.00	<b>Counter Weight</b>	8	Nos.	10,000	368	10,368	82,944
15.00	<b>OPGW Cable</b>						
15.01	24 Fibre (DWSM) OPGW fibre optic cable	95	Kms.	1,55,000	5,704	1,60,704	152,66,880
15.02	Installation Hardware set for 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	95	Set	80,000	2,944	82,944	78,79,680
15.03	Joint box (24 Fibre)	60	Nos.	3,497	129	3,626	2,17,560
16.00	<b>Any Other item required for successful completion of work</b>	1	Lot	0	0	0	0
17.00	<b>Note:</b> *One set of installation hardware shall contain all installation hardware fittings as may be required for 1 km of OPGW. ** Quantity indicated is for evaluation purpose. Actual quantity to be supplied after getting approval from owner.						
<b>Total Amount in ( Rs.) Excluding GST- Annexure-I A</b>							<b>4383,56,109</b>

**Commercial Schedule:- Annexure -I B**

**Bill Of Quantity Cum Price Schedule :- Service Portion**

**Name of work:- Construction of LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)**

Sl. No.	Item Description	Quantity	Units	Unit Rate (Rs)	Amount (Rs.)
1	2	3	4	5	6
1.00	Detailed Survey, including route alignment, profiling, tower optimization & spotting, check survey and Geotechnical Investigations etc.	35	Per Kms.	66,600	23,31,000
2.00	Setting of stub excluding cost of excavation and concreting but including back filling.				
2.01	a) Tangent tower (400 kV D/C towers)	60	Per tower	37,750	22,65,000
2.02	b) Small angle tension tower(400 kV D/C towers)	17	Per tower	37,750	6,41,750
2.03	c) Medium angle tension tower(400 kV D/C towers)	7	Per tower	37,750	2,64,250
2.04	d) Large angle tension tower(400 kV D/C towers)	30	Per tower	45,300	13,59,000
2.05	e) Special tower(400 kV D/C towers)	1	Per tower	45,300	45,300
3.00	Excavation excluding back filling, including shoring, shuttering, De-watering etc. for				
3.01	a) Normal Dry	2500	Per cu.m	125	3,12,500
3.02	b) Wet/Sandy soil	16000	Per Cu.m.	150	24,00,000
3.03	c) Soft/disintegrated rock	3000	Per Cu.m	225	6,75,000
3.04	d) Hard rock (blasting prohibited)	500	Per Cu.m.	625	3,12,500
3.05	e) Hard soil/ Soil mixed with bouldersl	3450	Per Cu.m	225	7,76,250
3.06	f) Wet Black Cotton Soil	500	Per Cu.m	225	1,12,500
4.00	Excavation for benching and transportation of soil at a suitable place				
4.01	a) Normal Dry	400	Per Cu.m	125	50,000
4.02	b) Wet/Sandy soil	1000	Per Cu.m	125	1,25,000
4.03	c) Soft/disintegrated rock	500	Per Cu.m	225	1,12,500

**Commercial Schedule:- Annexure -I B**

**Bill Of Quantity Cum Price Schedule :- Service Portion**

**Name of work:- Construction of LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)**

Sl. No.	Item Description	Quantity	Units	Unit Rate (Rs)	Amount (Rs.)
1	2	3	4	5	6
4.04	d) Hard rock (blasting prohibited)	100	Per Cu.m	625	62,500
4.05	e) Hard soil/ Soil mixed with bouldersl	100	Per Cu.m	225	22,500
4.06	f) Wet Black Cotton Soil	100	Per Cu.m	225	22,500
5.00	De-watering of pits during concerting				
5.01	a) Manual	20	Per Hour	200	4,000
5.02	b) Mechanical pump	50	Per Hour	600	30,000
5.03	c) Power driven pump	50	Per Hour	600	30,000
6.00	Rock anchors as necessary including cost of drilling holes in rock, grouting reinforcement dowel bars etc. (complete including bottom plugging with contractor's material as per approved drawings and specification.	5	Each Location	5,000	25,000
7.00	Providing and laying cement concrete M- 20 grade 1:1 1/2:3 with single sized aggregate of nominal size 20 mm including preparing surfaces, shuttering mixing, placing, temping curing and finishing with leads and lifts etc. as per specification and drawings.	2500	Per Cum	9,500	237,50,000
8.00	Providing & laying cement concreting M-10 grade 1:3:6 with single nominal size 20 mm including preparing surfaces, shuttering, mixing placing, temping curing and finishing with leads and lifts etc. as per specification and drawings.	500	Per Cum	7,000	35,00,000
9.00	Supply, Cutting, bending, binding, welding of joints if required, fixing and placing of steel reinforcement of Fe 500 grade as per specification and drawings	210	Per MT	64,000	134,40,000
10.00	Erection of all types of super structures towers, their extensions and special towers etc. with its bolts, nuts and washers and bird guard etc.	1975	Per MT	12,904	254,85,732
11.00	Erection of Anticlimbing devices.	114	Per Tower	5,910	6,73,694
12.00	Fixing of danger plate, circuit plates, number plate and phase plates etc.	114	Per Tower	5,910	6,73,694
13.00	Mounting of insulators and stringing of six Nos. twin bundle Moose conductor including laying, jointing, tensioning. Sagging, clamping and fixing of all line accessories etc.	35	Per Kms.	47,277	16,54,684
14.00	Stringing of one Nos. 7/3.66 mm galvanised steel wire including laying, jointing. tensioning etc.	35	Per Kms.	82,734	28,95,698

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Sl. No.	Item Description	Quantity	Units	Unit Rate (Rs)	Amount (Rs.)
1	2	3	4	5	6
15.00	Earthing of transmission line towers- By pipe type earthing sets, excluding cost of all materials	80	Per Tower	5,910	4,72,767
16.00	Earthing of transmission line towers- By counterpoise earthing sets excluding cost of all materials	34	Per Tower	5,815	1,97,711
17.00	Rates for Providing and laying cement concrete M-15 grade 1:2:4 with single sized aggregate of nominal size 20 mm including preparing surfaces, shuttering mixing, placing, temping curing and finishing with leads and lifts etc. as per specification and drawings.	400	Per Cum	8,000	32,00,000
18.00	Rates for Dry stone revetment (including excavation back filling and levelling)	600	Per Cum	3,000	18,00,000
19.00	Rates for Random stone masonry with cement sand mortar with (1:6) (including cement & back filling and levelling) by surplus excavation earth including pointing (flush and ruled type) with cement sand mortar 1:3	2000	Per Cum	4,800	96,00,000
20.00	Random rubble dry stone pitching including preparing surface etc. complete with raised & cut pointing in cement sand mortar 1:3 , curing etc.	2000	Per Cum	2,250	45,00,000
21.00	Cement concrete coping grade 1:2:4 ( 1 Cement :2 coarse sand :4 graded stone aggregate ) rounding off edges etc. but excluding the cost of nosing of steps etc. complete for 75 mm thick with 20 mm thick nominal size aggregate	700	Sq. Mtr.	600	4,20,000
22.00	Destringing of Earth wire (7/3.66mm) : Dismantaling of earth bonds , Vibration dampers , declipping & fitting in rollers , detensioning and collecting the material & depositing the same in our store and stacking	60	Kms.	82,734	49,64,053
23.00	Rates for Back filling and levelling of the volumes enclosed by the revetment walls with excavated earth at locations.	600	Per Cum	125	75,000
24.00	Rates for Back-filling with borrowed earth				
24.01	i) Beyond 50 m upto 100 m	200	Per Cum	250	50,000
24.02	ii) Beyond 100 m	500	Per Cum	300	1,50,000
25.00	Rates for Providing of river shingles behind retaining wall/ dry stone crates act as filter	90	Per Cum	1,500	1,35,000
26.00	Rates for Tack welding of Bolts & Nuts upto bottom cross arm of the tower	114	Per Tower	10,000	11,40,000

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Sl. No.	Item Description	Quantity	Units	Unit Rate (Rs)	Amount (Rs.)
1	2	3	4	5	6
27.00	Erection, testing and commissioning of Aviation Warning Light System in accordance with IS-5613, with one medium and two low intensity aviation warning lights.	114	Sets	15,000	17,10,000
28.00	Erection of globules (Day marking sphere) 600 mm dia conforming to the latest ICAO regulations suitable for clamping on stranded steel earthwire alongwith the clamp etc. complete in all respect.	120	Nos.	10,000	12,00,000
29.00	Painting of tower above 45m from ground level for Aviation purpose	500	Per Mtr.	1,000	5,00,000
30.00	OPGW cable & Accessories				
30.01	Stringing of 24 Fibre (DWSM) OPGW fibre optic cable	95	Kms.	82,734	78,59,751
30.02	Installation Hardware set for 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	95	Sets	5,000	4,75,000
30.03	Joint box (24 Fibre)	60	Nos.	500	30,000
31.00	Any Other Item	1	Lot	0	0
Total Amount in ( Rs.) Excluding GST- Annexure-I B					1225,31,834

**" Commercial Schedule - Annexure-I "**  
**( " Commercial Schedule- Annexure I A" + " Commercial Schedule- Annexure I B")**

SI No.	Description	Amount (Rs.)
1	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)"- SUPPLY PORTION  <b>Commercial Schedule- Annexure I A</b>	<b>4383,56,109</b>
2	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)"- SERVICE PORTION  <b>Commercial Schedule- Annexure I B</b>	<b>1225,31,834</b>
<b>TOTAL AMOUNT IN RS.:- (COMMERCIAL SCHEDULE -ANNEXURE-I) - EXCLUDING GST</b>		<b>5608,87,943</b>



Commercial Schedule:- Annexure-II A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
NAME OF WORK:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
1.00	<b>Tower: Fabrication, galvanising and supply of various types of towers (including special towers), &amp; its body / leg (equal &amp; unequal) extensions (complete) including stubs and hangers, D-shackles, Bird Guard, U-Bolt, Pack washer, Anti Climbing Device etc.</b>						
1.01	High Tensile Steel	13.00	MT	88,000	4,277	92,277	11,99,601
1.02	Mild Steel	105.00	MT	86,000	4,180	90,180	94,68,900
2.00	Supply of Bolts & Nuts for towers and stubs (including step bolts & nuts and anti theft bolts & nuts, Spring Washers Etc. )	6.00	MT	1,10,000	4,048	1,14,048	6,84,288
3.00	Sub Station Structures All type	1.00	MT	86,000	3,165	89,165	89,165
4.00	<b>Supply of Earthing material of Towers</b>						
4.01	Pipe Type	10	Set	9,306	342	9,648	96,480
4.02	Counterpoise Type	3	Set	4,541	167	4,708	14,124
5.00	<b>Supply of following Tower Accessories</b>						
5.01	Danger Plate	13	Nos.	456	17	473	6,149
5.02	Number Plate	13	Nos.	456	17	473	6,149
5.03	Phase Plate (Set of three)	26	Set	760	28	788	20,488
6.00	<b>Design, manufacture and supply of following line material. ***11/kv 70KN</b>						
6.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	5,37,228	25,572	5,62,800	5,62,800

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NAME OF WORK:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
	*** Disc Insulator for 1 Lot consists of 624 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 860.94 and Unit F&I is Rs 40.98 OR Long Rod Insulator for 1 Lot consists of 48 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 11192.25 and Unit F&I is Rs 532.75						
7.00	<b>Design, manufacture and supply of following line material. ***11/kv 120KN</b>						
7.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	18,24,275	86,835	19,11,110	19,11,110
	*** Disc Insulator for 1 Lot consists of 2016 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 904.90 and Unit F&I is Rs 43.07 OR Long Rod Insulator for 1 Lot consists of 144 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 12668.58 and Unit F&I is Rs 603.02						
8.00	ACSR Zebra Conductor(54/3.18MM AL+7/3.18MM Steel)	18	KMS.	3,35,799	12,022	3,47,821	62,60,778
9.00	<b>Hardware Fittings for ACSR Zebra Conductor</b>						
9.01	Single Suspension H/W fittings for ACSR Zebra Conductor	1	Sets	11,172	400	11,572	11,572
9.02	Single Tension H/W fittings for ACSR Zebra Conductor	96	Sets	15,362	550	15,912	15,27,552
9.03	Double Suspension H/W fittings for ACSR Zebra Conductor	24	Sets	30,000	1,428	31,428	7,54,272
9.04	Double Tension H/W fittings for ACSR Zebra Conductor	24	Sets	32,259	1,155	33,414	8,01,936
10.00	<b>Accessories for ACSR Zebra Conductor</b>						
10.01	Mid Span Compression Joint for ACSR Zebra Conductor	30	Nos.	954	35	989	29,670

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NAME OF WORK:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
10.02	Repair Sleeve for ACSR Zebra Conductor	10	Nos.	329	12	341	3,410
10.03	Preformed Armour Rod for ACSR Zebra Conductor	24	Sets	1,750	64	1,814	43,536
10.04	Vibration Damper for ACSR Zebra Conductor	162	Nos.	1,019	37	1,056	1,71,072
11.00	<b>OPGW Cable</b>						
11.01	48 Fibre (DWSM) OPGW fibre optic cable	3	Kms.	3,00,000	11,040	3,11,040	9,33,120
11.02	Installation Hardware set for 48 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	3	Sets	80,000	2,944	82,944	2,48,832
11.03	Joint box (48 Fibre)	5	Nos.	3,497	129	3,626	18,130
12.00	<b>Any Other item required for successful completion of work</b>	1	Lot	0	0	0	0
13.00	<b>Note:</b> <b>*One set of installation hardware shall contain all installation hardware fittings as may be required for 1 km of OPGW.</b> <b>** Quantity indicated is for evaluation purpose. Actual quantity to be supplied after getting approval from owner.</b>						
<b>Total Amount in ( Rs.) Excluding GST- Annexure-II A</b>							<b>248,63,134</b>

**Commercial Schedule:- Annexure-II B**

**Bill Of Quantity Cum Price Schedule :- Service Portion**

**Name of work:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.**

Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
1.00	<p><b><u>Detail Survey as per tentative route-</u></b></p> <p>Which includes the following major activities-Pegging of line route, providing of survey pillar at an interval of 3-4 KM in the line route with required jungle clearance for survey, profile preparation of approved route on graph sheet and marking of offset on either side of line, marking of side clearance for hills, sand dunes etc, as per specification and tower scheduling.</p>	3	Kms.	27,080	81,240
2.00	<p><b><u>Check survey as per approved route of line which includes-</u></b></p> <p>Re-checking of the line route as per approved profile, chainage, tower center marking, pit marking, bisection of angle tower as required at site.</p>	3	Kms.	10,900	32,700
3.00	<p><b><u>Excavation</u></b>-Excavation, excluding back filling, including shoring,shuttering, dewatering, etc. upto the required depth as per foundation specification/drawings.</p>				
3.01	(i) Any soil, soft rock other than hard rock	4590	Cum	225	10,32,750
3.02	(ii) Hard rock (with blasting subject to permission or without blasting)	100	Cum	625	62,500
4.00	<p><b><u>SETTING OF TEMPLATE &amp; STUB/ANCHOR BOLT:-</u></b></p> <p>Setting of template &amp; stub/ anchor bolt &amp; removal after concreting, excluding cost of excavation and concreting but including back filling with excavated/ borrowed earth (with lead &amp; lift) in layers with ramming andwatering as per specification.</p>				
4.01	(i) Tower including extension upto 9 Meter	8	MT	20,000	1,60,000
5.00	<p><b><u>CONCRETING:</u></b></p> <p>Providing and laying cement concrete for all types of foundation as per latest ISS:456 including cement, sand, stone aggregate 20mm nominal size,water etc., preparing surfaces, shuttering, mixing, placing, ramming, curing, finishing as per specification and drawings.</p>				
5.01	(i) 1:3:6 Mix (M-10)	104	Cum	7,000	7,28,000
5.02	(i) 1:2:4 Mix (M-15)	376	Cum	8,000	30,08,000

**Commercial Schedule:- Annexure-II B**

**Bill Of Quantity Cum Price Schedule :- Service Portion**

**Name of work:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.**

Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
5.03	(iii) 1:1.5:3 Mix (M-20)	55	Cum	9,500	5,22,500
6.00	<b><u>STEEL REINFORCEMENT:</u></b> Cutting, bending, welding of joints if required, fixing and placing of steel reinforcement as per specification and drawings including material.	47.3	MT	64,000	30,27,200
7.00	<b><u>EARTHING:</u></b>				
7.01	(A) Earthing of towers with pipe type earthing excluding the supply of pipes, wires, flats & connectors, but including coke/charcoal, etc., excavation, augering and backfilling in all types of soil.	10	Sets	5,910	59,096
7.02	(B) Earthing of towers legs with counterpoise type earthings excluding supply of materials but including excavation and backfilling in all types of soil.  (i) each set by laying 4 wires each 15m long at a depth of 600mm	3	Sets	5,815	17,445
8.00	<b><u>ERECTION OF TOWERS:</u></b> Erection of super structures including D-shackles, ACD, Hangers, U-Bolts, step bolts, danger plate, phase plate, number plate etc. Also including tack welding of bolts & nuts upto bottom cross arm/beam level including application of Zinc Rich paint				
8.01	Erection of tower (with extension upto 9 Meters)	110	MT	12,904	14,19,459
9.00	Erection of Sub Station Structures including levelling, setting of Stub and tightening, punching of nuts and Bolts and tack welding upto beam level as per specification	1	MT	12,904	12,904
10.00	<b><u>CONDUCTOR STRINGING:</u></b> Stringing of ACSR Zebra including hoisting of insulator string, laying, jointing & tensioning of conductor, clamping with Armour rods and fixing of vibration damper per route KM of the line.				
10.01	(i) Single Conductor	18	Kms.	47,277	8,50,980
11.00	<b><u>RIVETMENT OF TOWERS</u></b>				

**Commercial Schedule:- Annexure-II B**

**Bill Of Quantity Cum Price Schedule :- Service Portion**

**Name of work:- TURNKEY PROJECT FOR LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS.**

Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
11.01	a) Providing and laying cement concreting including curing, compaction etc. complete using stone aggregate 40mm nominal size (crusher broken) in foundation plinth using 1 cement : 5 sand : 10 aggregate mix.	50.00	Cum.	3,960	1,98,000
11.02	(b) Random rubble stone masonry for rivetment in 1:5 cement sand mortar including providing and fixing 100mm dia PCC drain pipe & raised and cut-pointing on stone masonry in 1:3 cement sand mortar excluding excavation but including Back filling inside rivetment using excavated/ borrowed earth (with all lead & lift) in layers not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering.	220.000	Cum.	4,800	10,56,000
11.03	c) Random rubble dry stone pitching including preparing surface etc. complete with raised & cut pointing in cement sand mortar 1:3 curing etc.	220.000	Cum.	3,000	6,60,000
11.04	d) Cement concrete coping garde 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) rounding off edges etc. but excluding the cost of nosing of steps etc. complete for 70 mm thick with 20 mm thick nominal size aggregate.	20.000	Sq. Mtr.	8,000	1,60,000
12.00	<b>OPGW Cable</b>				
12.01	Stringing of 48 FIBER(DWSM) OPGW FIBRE OPTIC CABLE	3	Km.	82,734	2,48,203
12.02	Installation Hardware set for above 48 Fibre OPGW cabling including of all cable fittings and accessories except joint Box	3	Set	5,000	15,000
12.03	JOINT BOX (48 FIBER) OPGW CABLE	5	Nos.	500	2,500
13.00	Any Other Item	1	Lot	0	0
<b>Total Amount in ( Rs.) Excluding GST- Annexure-II B</b>					<b>133,54,477</b>

**" Commercial Schedule - Annexure-II "**  
**( " Commercial Schedule- Annexure II A" + " Commercial Schedule- Annexure II B")**

SI No.	Description	Amount (Rs.)
1	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS. "- SUPPLY PORTION  <b>Commercial Schedule- Annexure II A</b>	<b>248,63,134</b>
2	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS."- SERVICE PORTION  <b>Commercial Schedule- Annexure II B</b>	<b>133,54,477</b>
<b>TOTAL AMOUNT IN RS.- (COMMERCIAL SCHEDULE -ANNEXURE-II) -EXCLUDING GST</b>		<b>382,17,611</b>

Commercial Schedule:- Annexure -III A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
Name of work:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
1.00	<b>Tower: Fabrication, galvanising and supply of various types of towers (including special towers), &amp; its body / leg (equal &amp; unequal) extensions (complete) including stubs and hangers, D-shackles, Bird Guard, U-Bolt, Pack washer, Anti Climbing Device etc.</b>						
1.01	High Tensile Steel	118.00	MT	88,000	4,277	92,277	108,88,686
1.02	Mild Steel	590.00	MT	86,000	4,180	90,180	532,06,200
2.00	Supply of Bolts & Nuts for towers and stubs (including step bolts & nuts and anti theft bolts & nuts, Spring Washers Etc. )	32.00	MT	1,10,000	4,048	1,14,048	36,49,536
3.00	Sub Station Structures All type	1.00	MT	86,000	3,165	89,165	89,165
4.00	<b>Supply of Earthing material of Towers</b>						
4.01	Pipe Type	80	Set	9,306	342	9,648	7,71,840
4.02	Counterpoise Type	20	Set	4,541	167	4,708	94,160
5.00	<b>Supply of following Tower Accessories</b>						
5.01	Danger Plate	100	Nos.	456	17	473	47,300
5.02	Number Plate	100	Nos.	456	17	473	47,300
5.03	Phase Plate (Set of three)	100	Set	760	28	788	78,800
6.00	<b>Design, manufacture and supply of following line material. ***11/kv 70KN</b>						
6.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	18,80,298	89,502	19,69,800	19,69,800



Commercial Schedule:- Annexure -III A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
Name of work:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
	*** Disc Insulator for 1 Lot consists of 2184 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 860.94 and Unit F&I is Rs 40.98 OR Long Rod Insulator for 1 Lot consists of 168 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 11192.25 and Unit F&I is Rs 532.75.						
7.00	<b>Design, manufacture and supply of following line material. ***11/kv 120KN</b>						
7.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	43,32,653	2,06,234	45,38,887	45,38,887
	*** Disc Insulator for 1 Lot consists of 4788 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 904.90 and Unit F&I is Rs 43.07 OR Long Rod Insulator for 1 Lot consists of 342 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 12668.58 and Unit F&I is Rs 603.02.						
8.00	ACSR Zebra Conductor(54/3.18MM AL+7/3.18MM Steel)	85	KMS.	3,35,799	12,022	3,47,821	295,64,785
9.00	<b>Hardware Fittings for ACSR Zebra Conductor</b>						
9.01	Single Suspension H/W fittings for ACSR Zebra Conductor	132	Sets	11,172	532	11,704	15,44,928
9.02	Single Tension H/W fittings for ACSR Zebra Conductor	270	Sets	15,362	731	16,093	43,45,110
9.03	Double Suspension H/W fittings for ACSR Zebra Conductor	18	Sets	30,000	1,428	31,428	5,65,704
9.04	Double Tension H/W fittings for ACSR Zebra Conductor	36	Sets	32,259	1,536	33,795	12,16,620
10.00	<b>Accessories for ACSR Zebra Conductor</b>						
10.01	Mid Span Compression Joint for ACSR Zebra Conductor	100	Nos.	954	35	989	98,900
10.02	Repair Sleeve for ACSR Zebra Conductor	50	Nos.	329	12	341	17,050

Commercial Schedule:- Annexure -III A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
Name of work:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs.)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
10.03	Preformed Armour Rod for ACSR Zebra Conductor	150	Sets	1,750	64	1,814	2,72,100
10.04	Vibration Damper for ACSR Zebra Conductor	600	Nos.	1,019	37	1,056	6,33,600
11.00	<b>OPGW Cable</b>						
11.01	24 Fibre (DWSM) OPGW fibre optic cable	28	Kms.	1,55,000	5,704	1,60,704	44,99,712
11.02	Installation Hardware set for 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	28	Sets	80,000	2,944	82,944	23,22,432
11.03	Joint box (24 Fibre)	25	Nos.	3,497	129	3,626	90,650
12.00	<b>Any Other item required for successful completion of work</b>	1	Lot	0	0	0	0
13.00	<b>Note:</b> *One set of installation hardware shall contain all installation hardware fittings as may be required for 1 km of OPGW. ** Quantity indicated is for evaluation purpose. Actual quantity to be supplied after getting approval from owner.						
<b>Total Amount in ( Rs.) Excluding GST- Annexure-III A</b>							<b>1205,53,265</b>

Commercial Schedule:- Annexure -III B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
NAME OF WORK:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4		
1.00	<u><b>Detail Survey as per tentative route-</b></u>  Which includes the following major activities-Pegging of line route, providing of survey pillar at an interval of 3-4 KM in the line route with required jungle clearance for survey, profile preparation of approved route on graph sheet and marking of offset on either side of line, marking of side clearance for hills, sand dunes etc, as per specification and tower scheduling.	28	Kms.	27,080	7,58,240
2.00	<u><b>Check survey as per approved route of line which includes-</b></u>  Re-checking of the line route as per approved profile, chainage, tower center marking, pit marking, bisection of angle tower as required at site.	28	Kms.	10,900	3,05,200
3.00	<u><b>Excavation</b></u> -Excavation, excluding back filling, including shoring,shuttering, dewatering, etc. upto the required depth as per foundation specification/drawings.				
3.01	(i) Any soil, soft rock other than hard rock	28000	Cum	225	63,00,000
3.02	(ii) Hard rock (with blasting subject to permission or without blasting)	200	Cum	625	1,25,000
4.00	<u><b>SETTING OF TEMPLATE &amp; STUB/ANCHOR BOLT:-</b></u>  Setting of template & stub/ anchor bolt & removal after concreting, excluding cost of excavation and concreting but including back filling with excavated/ borrowed earth (with lead & lift) in layers with ramming andwatering as per specification.				
4.01	(i) Tower including extension upto 9 Meter	36	MT	20,000	7,20,000
5.00	<u><b>CONCRETING:</b></u>  Providing and laying cement concrete for all types of foundation as per latest ISS:456 including cement, sand, stone aggregate 20mm nominal size,water etc., preparing surfaces, shuttering, mixing, placing, ramming, curing, finishing as per specification and drawings.				

Commercial Schedule:- Annexure -III B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
NAME OF WORK:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4		
5.01	(i) 1:3:6 Mix (M-10)	620	Cum	7,000	43,40,000
5.02	(i) 1:2:4 Mix (M-15)	1835	Cum	8,000	146,80,000
5.03	(iii) 1:1.5:3 Mix (M-20)	630	Cum	9,500	59,85,000
6.00	<b><u>STEEL REINFORCEMENT:</u></b> Cutting, bending, welding of joints if required,fixing and placing of steel reinforcement as per specification and drawings including material.	259	MT	64,000	165,76,000
7.00	<b><u>EARTHING:</u></b>				
7.01	(A) Earthing of towers with pipe type earthing excluding the supply of pipes, wires, flats &connectors, but including coke/charcoal, etc.,excavation,augering and backfilling in all types of soil.	80	Sets	5,910	4,72,767
7.02	(B) Earthing of towers legs with counterpoise typeearthings excluding supply of materialsbut including excavation and backfilling in all types of soil.  (i)each set by laying 4 wires each 15m long at a depth of 600mm	20	Sets	5,815	1,16,301
8.00	<b><u>ERECTION OF TOWERS:</u></b> Erection of super structures including D-shackles,ACD, Hangers, U-Bolts, step bolts, danger plate, phase plate, number plate etc. Also including tack welding of bolts & nuts upto bottom cross arm/beam level including application of Zinc Rich paint				
8.01	Erection of tower (with extension upto 9 Meters)	690	MT	12,904	89,03,876
9.00	Erection of Sub Station Structures including levelling , setting of Stub and tightening , punching of nuts and Bolts and tack welding upto beam level as per specification	1	MT	12,904	12,904

Commercial Schedule:- Annexure -III B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
NAME OF WORK:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4		
10.00	<b>CONDUCTOR STRINGING:</b> Stringing of ACSR Zebra including hoisting of insulator string, laying, jointing & tensioning of conductor, clamping with Armour rods and fixing of vibration damper per route KM of the line.				
10.01	(i) Single Conductor	84	Kms.	47,277	39,71,242
12.00	<b>RIVETMENT OF TOWERS</b>				
12.01	a) Providing and laying cement concreting including curing, compaction etc. complete using stone aggregate 40mm nominal size (crusher broken) in foundation plinth using 1 cement : 5 sand : 10 aggregate mix.	400.00	Cum.	3,960	15,84,000
12.02	(b) Random rubble stone masonry for rivetment in 1:5 cement sand mortar including providing and fixing 100mmdia PCC drain pipe & raised and cut-pointing on stone masonry in 1:3 cement sand mortar excluding excavation but including Back filling inside rivetment using excavated/ borrowed earth (with all lead & lift) in layers not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering.	1600.000	Cum.	4,800	76,80,000
12.03	c) Random rubble dry stone pitching including preparing surface etc. complete with raised & cut pointing in cement sand mortar 1:3 curing etc.	1600.000	Cum.	3,000	48,00,000
12.04	d) Cement concrete coping garde 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) rounding off edges etc. but excluding the cost of nosing of steps etc. complete for 70 mm thick with 20 mm thick nominal size aggregate.	150.000	Sq. Mtr.	8,000	12,00,000
13.00	<b>OPGW Cable</b>				
13.01	Stringing of 24 FIBER(DWSM) OPGW FIBRE OPTIC CABLE	28	Km.	82,734	23,16,558
13.02	Installation Hardware set for above 24 Fibre OPGW cabling including of all cable fittings and accessories except joint Box	28	Set	5,000	1,40,000
13.03	JOINT BOX (24 FIBER) OPGW CABLE	25	Nos.	500	12,500

Commercial Schedule:- Annexure -III B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
NAME OF WORK:- TURNKEY PROJECT FOR CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4		
14.00	Any Other Item	1	Lot	0	0
Total Amount in ( Rs.) Excluding GST- Annexure-III B					809,99,588

**" Commercial Schedule - Annexure-III "**  
**( " Commercial Schedule- Annexure III A" + " Commercial Schedule- Annexure III B")**

SI No.	Description	Amount (Rs.)
1	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS."- SUPPLY PORTION  <b>Commercial Schedule- Annexure III A</b>	<b>1205,53,265</b>
2	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS."- SERVICE PORTION  <b>Commercial Schedule- Annexure III B</b>	<b>809,99,588</b>
<b>TOTAL AMOUNT IN RS.:- (COMMERCIAL SCHEDULE -ANNEXURE-III)- EXCLUDING GST</b>		<b>2015,52,853</b>

Commercial Schedule:- Annexure -IV A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
NAME OF WORK:- TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
1.00	<b>Tower: Fabrication, galvanising and supply of various types of towers (including special towers), &amp; its body / leg (equal &amp; unequal) extensions (complete) including stubs and hangers, D-shackles, Bird Guard, U-Bolt, Pack washer, Anti Climbing Device etc.</b>						
1.01	High Tensile Steel	52.00	MT	88000	4,277	92,277	47,98,404
1.02	Mild Steel	218.00	MT	86000	4,180	90,180	196,59,240
2.00	Supply of Bolts & Nuts for towers and stubs (including step bolts & nuts and anti theft bolts & nuts, Spring Washers Etc. )	14.00	MT	110000	4,048	1,14,048	15,96,672
3.00	Sub Station Structures All type	1.00	MT	86000	3,165	89,165	89,165
4.00	<b>Supply of Earthing material of Towers</b>						
4.01	Pipe Type	22	Set	9306	342	9,648	2,12,256
4.02	Counterpoise Type	15	Set	4541	167	4,708	70,620
5.00	<b>Supply of following Tower Accessories</b>						
5.01	Danger Plate	37	Nos.	456	17	473	17,501
5.02	Number Plate	37	Nos.	456	17	473	17,501
5.03	Phase Plate (Set of three)	74	Set	760	28	788	58,312
6.00	<b>Design, manufacture and supply of following line material. ***11/kv 70KN</b>						
6.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	26,86,140	1,27,860	28,14,000	28,14,000



Commercial Schedule:- Annexure -IV A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
NAME OF WORK:- TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
	*** Disc Insulator for 1 Lot consists of 3120 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 860.94 and Unit F&I is Rs 40.98 OR Long Rod Insulator for 1 Lot consists of 240 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 11192.25 and Unit F&I is Rs 532.75						
7.00	<b>Design, manufacture and supply of following line material. ***11/kv 120KN</b>						
7.01	Disc Insulators / Long Rod Insulators*** (ANY ONE TO BE SUPPLIED) Bidder to intimate which one they shall supply along with the bid.	1	Lot	30,40,458	1,44,726	31,85,184	31,85,184
	*** Disc Insulator for 1 Lot consists of 3360 in Number and the Unit Ex Works Supply Rate of 1 Number Disc Insulator is Rs 904.90 and Unit F&I is Rs 43.07 OR Long Rod Insulator for 1 Lot consists of 240 in String and the Unit Ex Works Supply Rate of 1 String Long Rod Insulator is Rs 12668.58 and Unit F&I is Rs 603.02.						
8.00	ACSR Zebra Conductor(54/3.18MM AL+7/3.18MM Steel)	60	KMS.	335799	12,022	3,47,821	208,69,260
9.00	<b>Hardware Fittings for ACSR Zebra Conductor</b>						
9.01	Single Suspension H/W fittings for ACSR Zebra Conductor	1	Sets	11172	532	11,704	11,704
9.02	Single Tension H/W fittings for ACSR Zebra Conductor	192	Sets	15362	731	16,093	30,89,856
9.03	Double Suspension H/W fittings for ACSR Zebra Conductor	120	Sets	30000	1,428	31,428	37,71,360
9.04	Double Tension H/W fittings for ACSR Zebra Conductor	24	Sets	32259	1,536	33,795	8,11,080
10.00	<b>Accessories for ACSR Zebra Conductor</b>						

Commercial Schedule:- Annexure -IV A							
Bill Of Quantity Cum Price Schedule :- Supply Portion							
NAME OF WORK:- TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.							
Sl. No.	Item Description	Quantity	Units	Unit Ex Works Rate (Rs.)	Unit Freight & Insurance (Rs)	Unit Ex Works Supply + Freight & Insurance (Rs.)	Total Ex Works Supply + Freight & Insurance (Rs.)
1	2	3	4	5	6	7	8
10.01	Mid Span Compression Joint for ACSR Zebra Conductor	80	Nos.	954	35	989	79,120
10.02	Repair Sleeve for ACSR Zebra Conductor	30	Nos.	329	12	341	10,230
10.03	Preformed Armour Rod for ACSR Zebra Conductor	120	Sets	1750	64	1,814	2,17,680
10.04	Vibration Damper for ACSR Zebra Conductor	450	Nos.	1019	37	1,056	4,75,200
11.00	<b>OPGW Cable</b>						
11.01	48 Fibre (DWSM) OPGW fibre optic cable	10	Kms.	300000	11,040	3,11,040	31,10,400
11.02	Installation Hardware set for 48 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	10	Sets	80000	2,944	82,944	8,29,440
11.03	Joint box (48 Fibre)	10	Nos.	3497	129	3,626	36,260
12.00	<b>Any Other item required for successful completion of work</b>	1	Lot	0	0	0	0
13.00	<b>Note:</b> *One set of installation hardware shall contain all installation hardware fittings as may be required for 1 km of OPGW.  ** Quantity indicated is for evaluation purpose. Actual quantity to be supplied after getting approval from owner.						
<b>Total Amount in ( Rs.) Excluding GST- Annexure-IV A</b>							<b>658,30,445</b>

Commercial Schedule:- Annexure- IV B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
1.00	<u><b>Detail Survey as per tentative route-</b></u>  Which includes the following major activities-Pegging of line route, providing of survey pillar at an interval of 3-4 KM in the line route with required jungle clearance for survey, profile preparation of approved route on graph sheet and marking of offset on either side of line, marking of side clearance for hills, sand dunes etc, as per specification and tower scheduling.	10	Kms.	27,080	2,70,800
2.00	<u><b>Check survey as per approved route of line which includes-</b></u>  Re-checking of the line route as per approved profile, chainage, tower center marking, pit marking, bisection of angle tower as required at site.	10	Kms.	10,900	1,09,000
3.00	<u><b>Excavation-</b></u> Excavation, excluding back filling, including shoring,shuttering, dewatering, etc. upto the required depth as per foundation specification/drawings.				
3.01	(i) Any soil, soft rock other than hard rock	4600	Cum	225	10,35,000
3.02	(ii) Hard rock (with blasting subject to permission or without blasting)	200	Cum	625	1,25,000
4.00	<u><b>SETTING OF TEMPLATE &amp; STUB/ANCHOR BOLT:-</b></u>  Setting of template & stub/ anchor bolt & removal after concreting, excluding cost of excavation and concreting but including back filling with excavated/ borrowed earth (with lead & lift) in layers with ramming andwatering as per specification.				
4.01	(i) Tower including extension upto 9 Meter	14	MT	20,000	2,80,000

Commercial Schedule:- Annexure- IV B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
5.00	<b><u>CONCRETING:</u></b> Providing and laying cement concrete for all types of foundation as per latest ISS:456 including cement, sand, stone aggregate 20mm nominal size, water etc., preparing surfaces, shuttering, mixing, placing, ramming, curing, finishing as per specification and drawings.				
5.01	(i) 1:3:6 Mix (M-10)	110	Cum	7,000	7,70,000
5.02	(i) 1:2:4 Mix (M-15)	275	Cum	8,000	22,00,000
5.03	(iii) 1:1.5:3 Mix (M-20)	175	Cum	9,500	16,62,500
6.00	<b><u>STEEL REINFORCEMENT:</u></b> Cutting, bending, welding of joints if required, fixing and placing of steel reinforcement as per specification and drawings including material.	36.5	MT	64,000	23,36,000
7.00	<b><u>EARTHING:</u></b>				
7.01	(A) Earthing of towers with pipe type earthing excluding the supply of pipes, wires, flats & connectors, but including coke/charcoal, etc., excavation, augering and backfilling in all types of soil.	22	Sets	5,910	1,30,011
7.02	(B) Earthing of towers legs with counterpoise type earthings excluding supply of materials but including excavation and backfilling in all types of soil.  (i) each set by laying 4 wires each 15m long at a depth of 600mm	15	Sets	5,815	87,225

Commercial Schedule:- Annexure- IV B					
Bill Of Quantity Cum Price Schedule :- Service Portion					
TURNKEY PROJECT FOR LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS.					
Sl. No.	Item Description	Quantity	Units	Unit rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
8.00	<b><u>ERECTION OF TOWERS:</u></b> Erection of super structures including D-shackles,ACD, Hangers, U-Bolts, step bolts, danger plate, phase plate, number plate etc. Also including tack welding of bolts & nuts upto bottom cross arm/beam level including application of Zinc Rich paint				
8.01	Erection of tower (with extension upto 9 Meters)	260	MT	12,904	33,55,084
9.00	Erection of Sub Station Structures including levelling , setting of Stub and tightening , punching of nuts and Bolts and tack welding upto beam level as per specification	1	MT	12,904	12,904
10.00	<b><u>CONDUCTOR STRINGING:</u></b> Stringing of ACSR Zebra including hoisting of insulator string, laying, jointing & tensioning of conductor, clamping with Armour rods and fixing of vibration damper per route KM of the line.				
10.01	(i) Single Conductor	60	Kms.	47,277	28,36,601
11.00	<b>OPGW Cable</b>				-
11.01	Stringing of 48 FIBER(DWSM) OPGW FIBRE OPTIC CABLE	10	Km.	82,734	8,27,342
11.02	Installation of Hardware set for above 48 Fibre OPGW cabling including of al cable fittings and accessories exept joint Box	10	Set	5,000	50,000
11.03	JOINT BOX (48 FIBER) OPGW CABLE	10	Nos.	500	5,000
12.00	Any Other Item	1	Lot	0	0
Total Amount in ( Rs.) Excluding GST- Annexure-IV B					160,92,468

**" Commercial Schedule - Annexure-IV "**  
**( " Commercial Schedule- Annexure IV A" + " Commercial Schedule- Annexure IV B")**

SI No.	Description	Amount (Rs.)
1	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS "- SUPPLY PORTION  <b>Commercial Schedule- Annexure IV A</b>	<b>658,30,445</b>
2	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS"- SERVICE PORTION  <b>Commercial Schedule- Annexure IV B</b>	<b>160,92,468</b>
<b>TOTAL AMOUNT IN RS.:- (COMMERCIAL SCHEDULE -ANNEXURE-IV)-EXCLUDING GST</b>		<b>819,22,913</b>

**“ COMMERCIAL SCHEDULE -ANNEXURE-V ”**  
**( Summary of Commercial Schedule" Annexure I" + "Annexure II" + "Annexure III"+ "Annexure IV")**

**Subject :- TENDER FOR SPECIFIC STRATEGIC TIE-UP FOR “ CONSTRUCTION OF 400 KV AND 220 KV TRANSMISSION LINE WORK ( DETAILS AS BELOW) INCLUDING SUPPLY OF ALL EQUIPMENT/MATERIALS, ERECTION (INCLUDING CIVIL WORKS), ARRANGEMENT / SETTLEMENT OF RIGHT OF WAY, TESTING & COMMISSIONING ON EPC BASIS” FOR M/S RRVPNL AT PACHPADRA IN RAJASTHAN.**

**Details of Transmission line: -**

- i) CONSTRUCTION OF LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) -(35KMS) ON TURNKEY BASIS (DEPOSIT WORK)
- ii) CONSTRUCTION OF LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – (3 KMS.) ON TURNKEY BASIS (DEPOSIT WORK)
- iii) CONSTRUCTION OF 2X220 KV S/C LINE [ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – (28 KMS.) ON TURNKEY BASIS (DEPOSIT WORK)
- iv) CONSTRUCTION OF LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS. ON TURNKEY BASIS (DEPOSIT WORK)

**Tender Spec. no.:- TBSM/STRATEGIC TIE -UP/ RRVPNL/TENDER/21-22 DATE: 08.07.2021**

SI No.	Description	Amount (Rs.)
1	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF ONE CKT. OF EXISTING 400KV D/C RAJWEST – KANKANI LINE AT PROPOSED 400KV GSS PACHPADRA (TWIN MOOSE) - (35KMS) ON TURNKEY BASIS (DEPOSIT WORK)".  “ COMMERCIAL SCHEDULE - ANNEXURE-I ”	5608,87,943
2	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR "CONSTRUCTION OF LILO OF ALREADY CONSTRUCTED 220KV S/C BALOTARA – HRRL LINE AT PROPOSED 400 KV GSS PACHPADRA – 3 KMS."  “ COMMERCIAL SCHEDULE - ANNEXURE-II ”	382,17,611
3	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF 2X220 KV S/C LINE [ ON D/C TOWERS] FROM PROPOSED 400KV GSS PACHPADRA TO M/S HRRL – 28 KMS."  “ COMMERCIAL SCHEDULE - ANNEXURE-III ”	2015,52,853
4	TOTAL AMOUNT AS PER THE RATES IN BOQ FOR " CONSTRUCTION OF LILO OF 220KV S/C BALOTARA – BORANDA LINE AT 400KV GSS HRRL (RVPN LAND) – 10 KMS. "  “ COMMERCIAL SCHEDULE - ANNEXURE-IV ”	819,22,913
<b>TOTAL AMOUNT IN RS.:- “ COMMERCIAL SCHEDULE -ANNEXURE-V ”</b>  <b>(Commercial Schedule ( "Annexure I" + "Annexure II" + "Annexure III"+ "Annexure IV")</b> <b>(Excluding GST)</b>		<b>8825,81,320</b>

- Note :-**
- 1) The tenderer shall quote a percentage above/ below/At Par the rates shown in the “ **TOTAL AMOUNT IN RS.:- “ COMMERCIAL SCHEDULE -ANNEXURE-V ”** of subject tender.
  - 2) Price Bid format is uploaded on <https://eprocurebhel.co.in>. and also attached with the tender in section "price schedules". Bidders may please be noted that the price bid to be submitted in uploaded format only. Price bid submitted by the bidders in other formats are not acceptable to BHEL and the bid/offer shall not be considered for further evaluation.
  - 3) The quoted percentage will apply to the individual items of all the schedules (Commercial Schedule ( "Annexure I" , "Annexure II" , "Annexure III" , "Annexure IV") uniformly.
  - 4) The offers will be evaluated on the basis of total price basis i.e as per “ **TOTAL AMOUNT IN RS.:- “ COMMERCIAL SCHEDULE - ANNEXURE-V ”** i.e ( **Summary of Commercial Schedule" Annexure I" + "Annexure II" + "Annexure III"+ "Annexure IV")** .
  - 5) Bidders are advised to go through the **Various commercial schedules Annexures** carefully before submitting their offer.