

# Comparative Statement of Alternative Route Alignment Analysis Sheet for

**Full Title of the Project :** "Avaada Energy Pvt Ltd. Solar Power Plant in Kolayat Tehsil , Bikaner - Bhadla -II PS 220 KV S/C Transmission Line.

**Proposal :** FP/RJ/TRANS/150764/2022 , **Diversion Area :** 0.9625 ha.

S.No	Alternative Details	Segment	Length (M)	Width (M)	Area (Sqm)	Area (Ha)	Reason for Selection / Rejection
1.	Alternative Route -1 (Selected Alignment Marked in (Blue Color)	1	50	35	1750	0.1750	In Alternative Alignment-1 forest land Proposed for Diversion is less than the Alternative Route-2 and Alternative Route-3 hence we have selected the Route-1
		2	114	35	3990	0.3990	
		3	61	35	2135	0.2135	
		4	50	35	1750	0.1750	
		<b>Alternative Route -1 Total Forest Area</b>				<b>0.9625</b>	
2.	Alternative Route -2 (Selected Alignment Marked in (Pink Color)	1	80	35	2800	0.2800	In Alternative Route-2 forest land Proposed for Diversion is More than the Alternative Route-1 Hence we have rejected the Route-2
		2	122	35	4270	0.4270	
		3	50	35	1750	0.1750	
		4	55	35	1925	0.1925	
		<b>Alternative Route -2 Total Forest Area</b>				<b>1.0745</b>	
3.	Alternative Route -3 (Selected Alignment Marked in (Black Color)	1	176	35	6160	0.6160	In Alternative Route-3 forest land Proposed for Diversion is More than the Alternative Route-1 Hence we have rejected the Route-3
		2	64	35	2240	0.2240	
		3	52	35	1820	0.1820	
		4	52	35	1820	0.1820	
		<b>Alternative Route -3 Total Forest Area</b>				<b>2.9026</b>	

Note : No other Alternative is feasible except above mentioned 2 alignment due protected forest Crossing.

Analysis of above three route has been done route-1 has been selected because it is minimum forest land and low project cost.

Place: Kolayat

Date: 08/01/2022



**Rahul Sharma**  
Engineer

(Rahul Sharma)

Engineer,

Authorized Signatory

Avaada Energy Private Limited

**Authorized Signatory**

**Avaada Energy Private Limited**

Countersigned

Divisional Forest officer

Forest Division \_\_\_\_\_

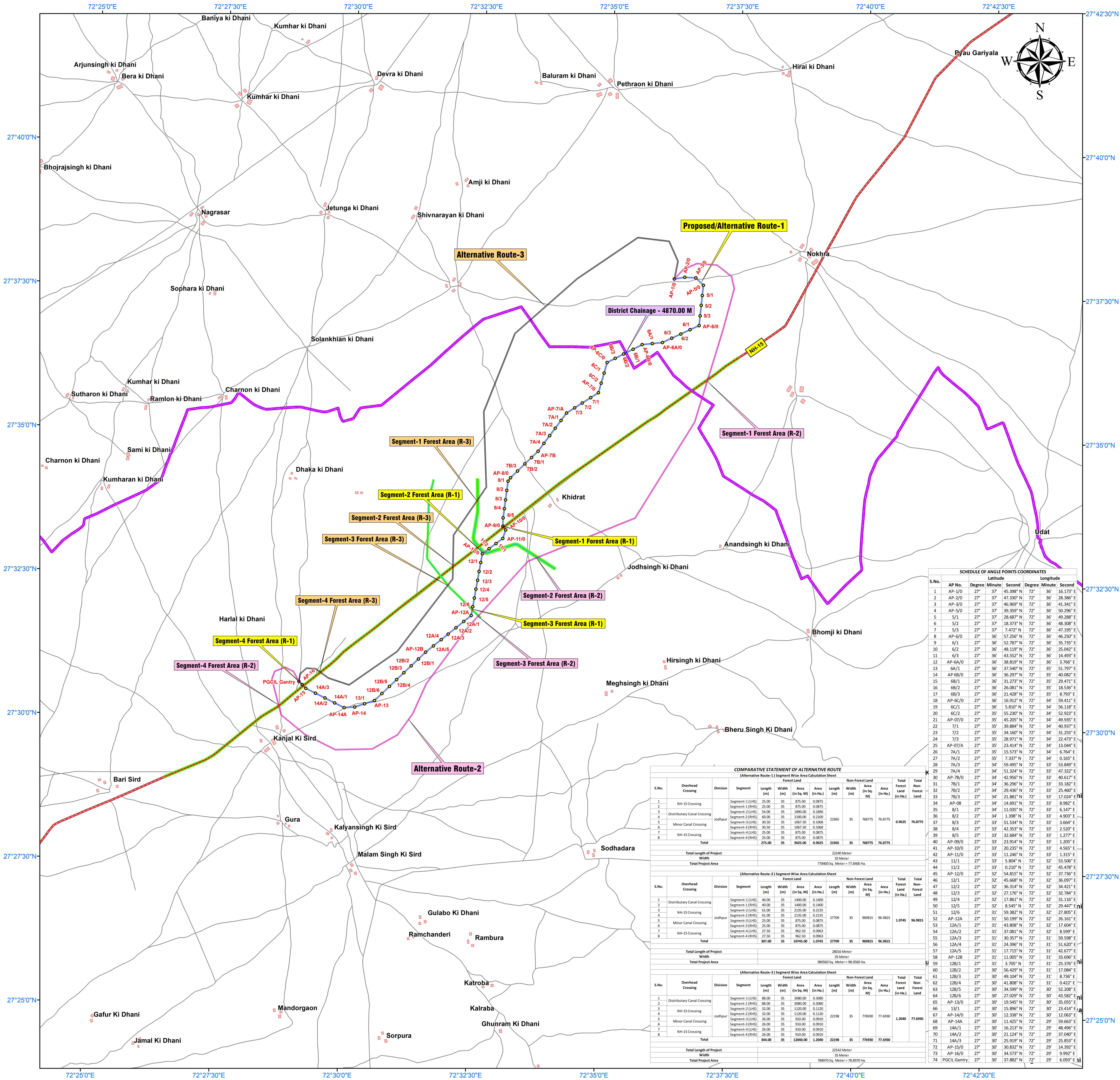
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ALTERNATIVE ROUTE DIGITAL MAP SHOWING OF PROPOSED 220 KV S/C AEPL 320 MW SOLAR PLANT TO PGCIL BHADLA SUB STATION  
TRANSMISSION LINE WITH REQUIRED FOREST LAND AND TOWER LOCATION

Full Title of the Project : "Avaada Energy Pvt Ltd. Solar Power Plant in Kolayat Tehsil , Bikaner - Bhadla -II PS 220 KV S/C Transmission Line"

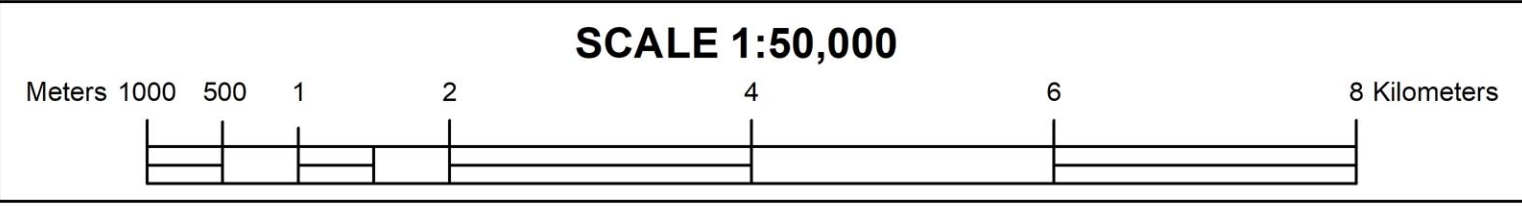
Proposal No. : FP/RJ/TRANS/150764/2022 Applied Area : 0.9625 Ha.



SCHEDULE OF ANGLE POINTS COORDINATES					
S.No.	AP No.	Degree	Minute	Second	Longitude
1	AP-1/0	27°	37'	45.388" N	72° 36' 16.175" E
2	AP-2/0	27°	37'	47.387" N	72° 36' 28.985" E
3	AP-3/0	27°	37'	46.969" N	72° 36' 41.341" E
4	AP-5/0	27°	37'	39.359" N	72° 36' 50.295" E
5	5/1	27°	37'	28.687" N	72° 36' 49.288" E
6	5/2	27°	37'	18.573" N	72° 36' 48.300" E
7	5/3	27°	37'	7.472" N	72° 36' 47.195" E
8	AP-6/0	27°	36'	57.256" N	72° 36' 46.250" E
9	6/1	27°	36'	52.787" N	72° 36' 35.735" E
10	6/2	27°	36'	46.119" N	72° 36' 25.042" E
11	6/3	27°	36'	43.552" N	72° 36' 14.405" E
12	AP-6A/0	27°	36'	38.819" N	72° 36' 3.765" E
13	6A/1	27°	36'	37.540" N	72° 35' 51.797" E
14	AP-6B/0	27°	36'	36.297" N	72° 35' 40.082" E
15	6B/1	27°	36'	31.273" N	72° 35' 29.472" E
16	6B/2	27°	36'	26.081" N	72° 35' 18.536" E
17	6B/3	27°	36'	21.428" N	72° 35' 8.793" E
18	AP-6C/0	27°	36'	16.912" N	72° 34' 59.411" E
19	6C/1	27°	36'	5.807" N	72° 34' 56.116" E
20	6C/2	27°	35'	55.230" N	72° 34' 52.923" E
21	AP-07/0	27°	35'	45.205" N	72° 34' 49.935" E
22	7/1	27°	35'	39.884" N	72° 34' 40.937" E
23	7/2	27°	35'	34.160" N	72° 34' 31.255" E
24	7/3	27°	35'	28.571" N	72° 34' 22.472" E
25	AP-07A/1	27°	35'	23.414" N	72° 34' 13.044" E
26	7A/1	27°	35'	15.573" N	72° 34' 6.764" E
27	7A/2	27°	35'	7.337" N	72° 34' 0.165" E
28	7A/3	27°	34'	59.895" N	72° 33' 53.849" E
29	7A/4	27°	34'	51.324" N	72° 33' 47.322" E
30	AP-7B/0	27°	34'	42.956" N	72° 33' 40.617" E
31	7B/1	27°	34'	36.296" N	72° 33' 33.182" E
32	7B/2	27°	34'	29.580" N	72° 33' 25.460" E
33	7B/3	27°	34'	21.881" N	72° 33' 17.020" E
34	AP-08/0	27°	34'	14.691" N	72° 33' 8.982" E
35	8/1	27°	34'	11.095" N	72° 33' 6.147" E
36	8/2	27°	34'	1.398" N	72° 33' 4.903" E
37	8/3	27°	33'	51.534" N	72° 33' 3.664" E
38	8/4	27°	33'	42.353" N	72° 33' 2.520" E
39	8/5	27°	33'	32.684" N	72° 33' 1.277" E
40	AP-09/0	27°	33'	23.914" N	72° 33' 1.205" E
41	AP-10/0	27°	33'	20.235" N	72° 33' 4.565" E
42	AP-11/0	27°	33'	11.240" N	72° 33' 1.315" E
43	11/1	27°	33'	5.804" N	72° 33' 53.500" E
44	11/2	27°	33'	0.210" N	72° 33' 45.478" E
45	AP-12/0	27°	32'	54.815" N	72° 32' 37.786" E
46	12/1	27°	32'	45.648" N	72° 32' 36.097" E
47	12/2	27°	32'	36.314" N	72° 32' 34.421" E
48	12/3	27°	32'	27.176" N	72° 32' 32.784" E
49	12/4	27°	32'	17.861" N	72° 32' 31.116" E
50	12/5	27°	32'	8.545" N	72° 32' 29.447" E
51	12/6	27°	31'	59.882" N	72° 32' 27.889" E
52	AP-12A/1	27°	31'	50.199" N	72° 32' 26.161" E
53	12A/1	27°	31'	43.808" N	72° 32' 17.604" E
54	12A/2	27°	31'	37.081" N	72° 32' 8.599" E
55	12A/3	27°	31'	30.357" N	72° 31' 59.598" E
56	12A/4	27°	31'	24.396" N	72° 31' 51.620" E
57	12A/5	27°	31'	17.715" N	72° 31' 42.677" E
58	AP-12B/1	27°	31'	11.005" N	72° 31' 33.696" E
59	12B/1	27°	31'	3.765" N	72° 31' 25.276" E
60	12B/2	27°	30'	56.420" N	72° 31' 17.084" E
61	12B/3	27°	30'	49.104" N	72° 31' 8.736" E
62	12B/4	27°	30'	41.808" N	72° 31' 0.422" E
63	12B/5	27°	30'	34.599" N	72° 30' 52.208" E
64	12B/6	27°	30'	27.029" N	72° 30' 43.582" E
65	AP-13/0	27°	30'	19.545" N	72° 30' 35.055" E
66	13/1	27°	30'	15.896" N	72° 30' 23.414" E
67	AP-14/0	27°	30'	12.338" N	72° 30' 12.067" E
68	AP-14A/1	27°	30'	11.425" N	72° 29' 59.665" E
69	14A/1	27°	30'	16.213" N	72° 29' 46.490" E
70	14A/2	27°	30'	11.124" N	72° 29' 37.040" E
71	14A/3	27°	30'	25.919" N	72° 29' 25.853" E
72	AP-15/0	27°	30'	30.832" N	72° 29' 14.392" E
73	AP-16/0	27°	30'	34.572" N	72° 29' 9.992" E
74	PGCIL Gantry	27°	30'	37.882" N	72° 29' 6.093" E

COMPARATIVE STATEMENT OF ALTERNATIVE ROUTE												
(Alternative Route-1) Segment Wise Area Calculation Sheet												
S.No.	Overhead Crossing	Division	Segment	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Total Forest Land (in Ha.)
1	NH-15 Crossing	Jodhpur	Segment-1 (LHS)	25.00	35	875.00	0.0875					0.9625
2			Segment-1 (RHS)	25.00	35	875.00	0.0875					
3	Segment-2 (LHS)		54.00	35	1890.00	0.1890						
4	Segment-2 (RHS)		60.00	35	2100.00	0.2100	21965	35	768775	76.8775		
5	Minor Canal Crossing	Segment-3 (LHS)	30.50	35	1067.50	0.1068						
6		Segment-3 (RHS)	30.50	35	1067.50	0.1068						
7	NH-15 Crossing	Segment-4 (LHS)	25.00	35	875.00	0.0875						
8		Segment-4 (RHS)	25.00	35	875.00	0.0875	21965	35	768775	76.8775		
Total				275.00	35	9625.00	0.9625	21965	35	768775	76.8775	
Total Length of Project								22240 Meter				
Total Project Area								778400 Sq. Meter = 77.8400 Ha.				
(Alternative Route-2) Segment Wise Area Calculation Sheet												
S.No.	Overhead Crossing	Division	Segment	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Total Forest Land (in Ha.)
1	Distributary Canal Crossing	Jodhpur	Segment-1 (LHS)	40.00	35	1400.00	0.1400					1.0745
2			Segment-1 (RHS)	40.00	35	1400.00	0.1400					
3	NH-15 Crossing		Segment-2 (LHS)	61.00	35	2135.00	0.2135					
4	Segment-2 (RHS)		61.00	35	2135.00	0.2135	27709	35	969815	96.9815		
5	Minor Canal Crossing	Segment-3 (LHS)	25.00	35	875.00	0.0875						
6		Segment-3 (RHS)	25.00	35	875.00	0.0875						
7	NH-15 Crossing	Segment-4 (LHS)	27.50	35	962.50	0.0963						
8		Segment-4 (RHS)	27.50	35	962.50	0.0963	27709	35	969815	96.9815		
Total				307.00	35	10745.00	1.0745	27709	35	969815	96.9815	
Total Length of Project								28016 Meter				
Total Project Area								980560 Sq. Meter = 98.0560 Ha.				
(Alternative Route-3) Segment Wise Area Calculation Sheet												
S.No.	Overhead Crossing	Division	Segment	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Length (m)	Width (m)	Area (in Sq. M)	Area (in Ha.)	Total Forest Land (in Ha.)
1	Distributary Canal Crossing	Jodhpur	Segment-1 (LHS)	88.00	35	3080.00	0.3080					1.2040
2			Segment-1 (RHS)	88.00	35	3080.00	0.3080					
3	NH-15 Crossing		Segment-2 (LHS)	32.00	35	1120.00	0.1120					
4	Segment-2 (RHS)		32.00	35	1120.00	0.1120	22198	35	776930	77.6930		
5	Minor Canal Crossing	Segment-3 (LHS)	26.00	35	910.00	0.0910						
6		Segment-3 (RHS)	26.00	35	910.00	0.0910						
7	NH-15 Crossing	Segment-4 (LHS)	26.00	35	910.00	0.0910						
8		Segment-4 (RHS)	26.00	35	910.00	0.0910	22198	35	776930	77.6930		
Total				344.00	35	12040.00	1.2040	22198	35	776930	77.6930	
Total Length of Project								22542 Meter				
Total Project Area								788750 Sq. Meter = 78.8750 Ha.				

- Legend**
- Tower Location
  - Transmission Line in Forest Area
  - Proposed/Alternative Route-1
  - Alternative Route-2
  - Alternative Route-3
  - National Highway -15
  - Forest Area Along the Road
  - Forest Area Along the Canal
  - Existing Road
  - Settlement
  - District Boundary



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