

## Alternative Route Alignment Analysis Sheet for

**Full Title of the Project :** “Construction of 33 KV Transmission Line Overhead/ Underground 33 KV XLPE 300 Sq. mm Cable From 400 KV GSS Bhadla to HPCL Rajasthan Refinery Ltd Nachana District -Jaisalmer”

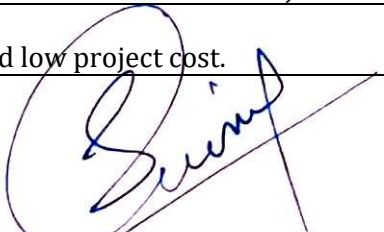
**Proposal No** : FP/RJ/TRANS/152039/2022 , **Date of Proposal** : 09.02.2022 , **Diversion Area** : 1.5206 ha.

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 (Red Color)	1	9786	1	9786	0.9786	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	5420	1	5420	0.5420	
		<b>Alternative Route -1 Total Forest Area</b>					
2.	Alternative Route -2 (Selected Alignment Marked in (Orange Color)	1	19805.00	15	297075.00	29.7075	In Alternative Route-2 forest land Proposed for Diversion is More than the Alternative Route-1 Hence we have rejected the Route-2
		<b>Alternative Route -2 Total Forest Area</b>					
3.	Alternative Route -3 (Selected Alignment Marked in (Blue Color)	1	20458.00	15	306870.00	30.6870	In Alternative Route-3 forest land Proposed for Diversion is More than the Alternative Route-1 Hence we have rejected the Route-3
		<b>Alternative Route -3 Total Forest Area</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: Nachana

Date: 01/05/2023

  
**ASSISTANT ENGINEER (DDUGJY)**  
**JODHPUR DISCOM, JAISALMER**

(Sunil Moolchandani)  
Assistant Engineer(DDUGJY) Jodhpur Discom, Jaisalmer

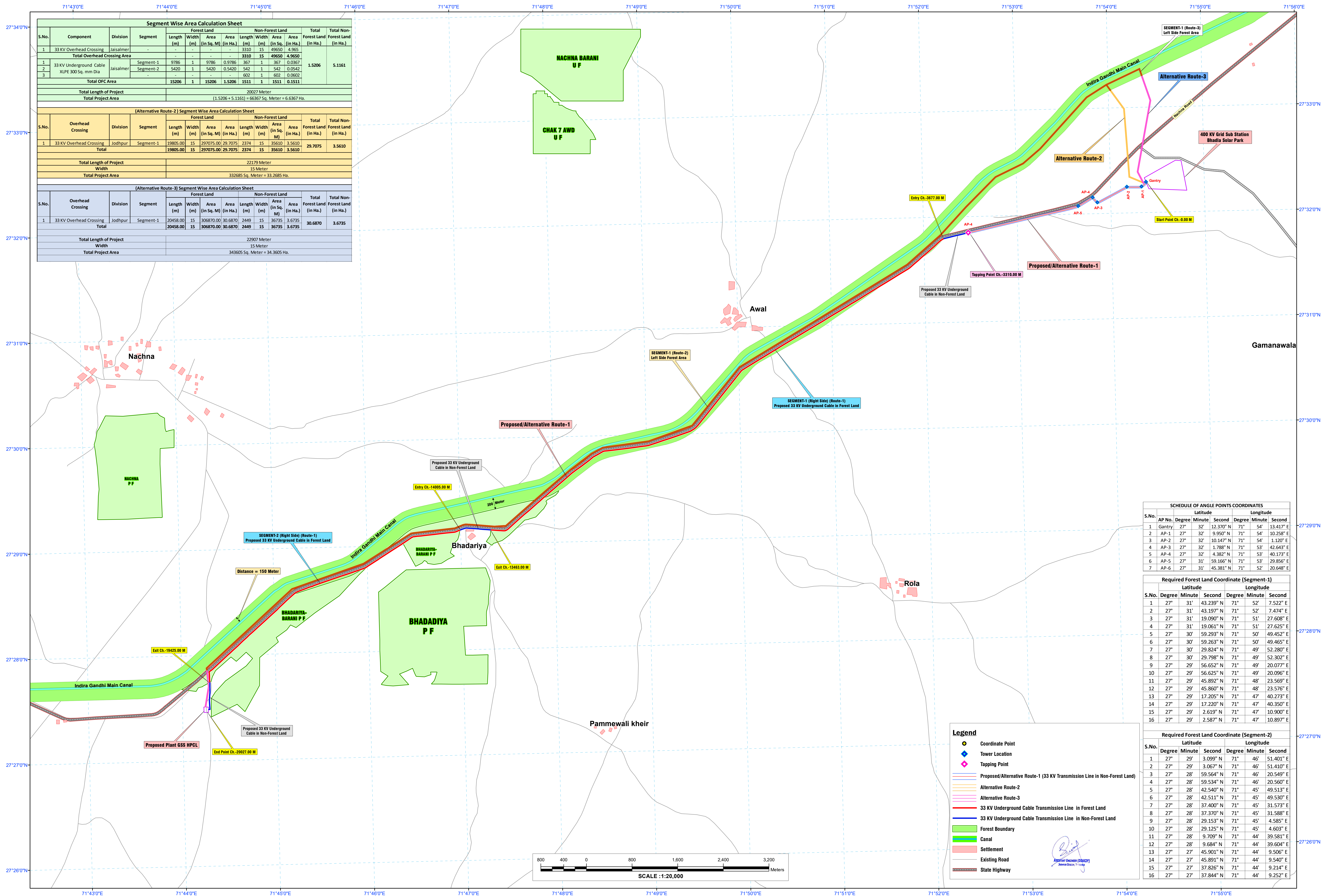
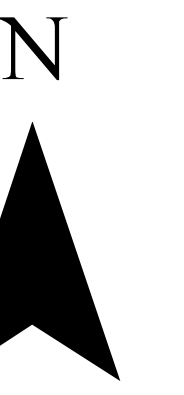
Countersigned  
Divisional Forest officer  
Forest Division \_\_\_\_\_  
Office Seal \_\_\_\_\_



**ALTERNATIVE ROUTE DIGITAL MAP SHOWING OF PROPOSED 33 KV (400 KV GSS BHADLA TO HPCL, RAJASTHAN REFINERY LTD.) TRANSMISSION LINE WITH REQUIRED FOREST LAND AND TOWER LOCATION**

Full Title of the Project : "Construction of 33 KV Transmission Line Overhead/ Underground 33 KV XLPE 300 Sq. mm Cable From 400 KV GSS Bhadla to HPCL Rajasthan Refinery Ltd Nachana District -Jaisalmer"

Proposal No. : FP/RJ/TRANS/152039/2022 Applied Area : 1.5206 Ha.



Segment Wise Area Calculation Sheet														
S.No.	Component	Division	Segment	Forest Land				Non-Forest Land				Total Forest Land (In Ha.)	Total Non-Forest Land (In Ha.)	
				Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)	Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)			
1	33 KV Overhead Crossing	Jaisalmer	-	-	-	-	-	3310	15	49650	4.965	-	-	
Total Overhead Crossing Area				-	-	-	-	3310	15	49650	4.965	-	-	
1	33 KV Underground Cable XLPE 300 Sq. mm Dia	Jaisalmer	Segment-1	9786	1	9786	0.9786	367	1	367	0.0367	-	-	
2			Segment-2	5420	1	5420	0.5420	542	1	542	0.0542	-	-	
3				-	-	-	-	602	1	602	0.0602	-	-	
Total OFC Area				15206	1	15206	1.5206	1511	1	1511	0.1511	-	-	
Total Length of Project				20027 Meter										
Total Project Area				(1.5206 + 0.1511) = 1.6717 Sq. Meter = 6.6367 Ha.										

[Alternative Route-2] Segment Wise Area Calculation Sheet														
S.No.	Overhead Crossing	Division	Segment	Forest Land				Non-Forest Land				Total Forest Land (In Ha.)	Total Non-Forest Land (In Ha.)	
				Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)	Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)			
1	33 KV Overhead Crossing	Jodhpur	Segment-1	19805.00	15	297075.00	29.7075	2374	15	35610	3.5610	-	-	
Total				19805.00	15	297075.00	29.7075	2374	15	35610	3.5610	-	-	
Total Length of Project				22179 Meter										
Width				15 Meter										
Total Project Area				332685 Sq. Meter = 33.2685 Ha.										

[Alternative Route-3] Segment Wise Area Calculation Sheet														
S.No.	Overhead Crossing	Division	Segment	Forest Land				Non-Forest Land				Total Forest Land (In Ha.)	Total Non-Forest Land (In Ha.)	
				Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)	Length (m)	Width (m)	Area (In Sq. M)	Area (In Ha.)			
1	33 KV Overhead Crossing	Jodhpur	Segment-1	20458.00	15	306870.00	30.6870	2449	15	36735	3.6735	-	-	
Total				20458.00	15	306870.00	30.6870	2449	15	36735	3.6735	-	-	
Total Length of Project				22907 Meter										
Width				15 Meter										
Total Project Area				343605 Sq. Meter = 34.3605 Ha.										

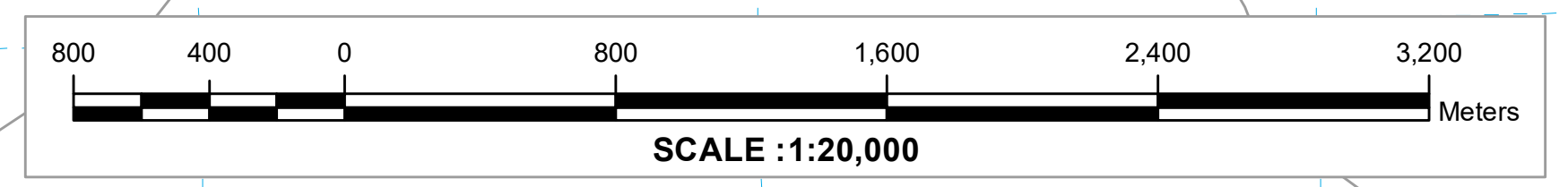
SCHEDULE OF ANGLE POINTS COORDINATES						
S.No.	AP No.	Degree	Minute	Second	Latitude	Longitude
1	Gantry	27°	32'	12.370"	71° 54'	13.417" E
2	AP-1	27°	32'	9.950"	71° 54'	10.258" E
3	AP-2	27°	32'	10.147"	71° 54'	1.120" E
4	AP-3	27°	32'	1.788"	71° 53'	42.643" E
5	AP-4	27°	32'	4.382"	71° 53'	40.173" E
6	AP-5	27°	31'	59.166"	71° 53'	29.856" E
7	AP-6	27°	31'	45.381"	71° 52'	20.648" E

Required Forest Land Coordinate (Segment-1)						
S.No.	Degree	Minute	Second	Degree	Minute	Second
1	27°	31'	43.239"	71°	52'	7.522" E
2	27°	31'	43.197"	71°	52'	7.474" E
3	27°	31'	19.090"	71°	51'	27.608" E
4	27°	31'	19.061"	71°	51'	27.625" E
5	27°	30'	59.293"	71°	50'	49.452" E
6	27°	30'	59.263"	71°	50'	49.465" E
7	27°	30'	29.824"	71°	49'	52.280" E
8	27°	30'	29.798"	71°	49'	52.302" E
9	27°	29'	56.652"	71°	49'	20.077" E
10	27°	29'	56.625"	71°	49'	20.096" E
11	27°	29'	45.892"	71°	48'	23.569" E
12	27°	29'	45.860"	71°	48'	23.576" E
13	27°	29'	17.205"	71°	47'	40.273" E
14	27°	29'	17.220"	71°	47'	40.350" E
15	27°	29'	2.619"	71°	47'	10.900" E
16	27°	29'	2.587"	71°	47'	10.897" E

Required Forest Land Coordinate (Segment-2)						
S.No.	Degree	Minute	Second	Degree	Minute	Second
1	27°	29'	3.099"	71°	46'	51.401" E
2	27°	29'	3.067"	71°	46'	51.410" E
3	27°	28'	59.564"	71°	46'	20.549" E
4	27°	28'	59.534"	71°	46'	20.560" E
5	27°	28'	42.540"	71°	45'	49.513" E
6	27°	28'	42.511"	71°	45'	49.530" E
7	27°	28'	37.400"	71°	45'	31.573" E
8	27°	28'	37.370"	71°	45'	31.588" E
9	27°	28'	29.153"	71°	45'	4.585" E
10	27°	28'	29.125"	71°	45'	4.603" E
11	27°	28'	9.709"	71°	44'	39.581" E
12	27°	28'	9.684"	71°	44'	39.604" E
13	27°	27'	45.901"	71°	44'	9.506" E
14	27°	27'	45.891"	71°	44'	9.540" E
15	27°	27'	37.826"	71°	44'	9.214" E
16	27°	27'	37.844"	71°	44'	9.252" E

**Legend**

- Coordinate Point
- ◆ Tower Location
- ◇ Tapping Point
- Proposed/Alternative Route-1 (33 KV Transmission Line in Non-Forest Land)
- Alternative Route-2
- Alternative Route-3
- 33 KV Underground Cable Transmission Line in Forest Land
- 33 KV Underground Cable Transmission Line in Non-Forest Land
- Forest Boundary
- Canal
- Settlement
- Existing Road
- State Highway



*[Signature]*  
 Assistant Engineer (R&S)  
 Jaisalmer District, Jaisalmer