

IDENTIFICATION & SELECTION OF ROUTE

The route sighting and selection process began with an inventory of existing and planned land use. Three alternative route corridors were identified largely by maximizing linear sighting opportunities, such as following existing roadways and power line corridors, negotiation with river, railway, road, electric power line and telephone line crossings and least crossing of notified forest area. All efforts have been made to provide minimum numbers of angle points and utmost care have been taken to select the possible places for all angle points. The angle points have been fixed up on the ground with minimum possible angle of deviation. Rivers are mainly crossed with right angles and a minimum span. Crossings are located on high bank and are out of the maximum flood level. Similarly, power line crossings have been fixed as close as possible to the right angle.

Overall, the identified route minimize impacts to existing habitations, follow existing and planned roadways and achieves the goal of a more reliable and effective electrical system. A Systematic Route alignment survey has been conducted to verify the Ground condition at the through the complete route. The survey Team has been deployed with sufficient Surveyors & Technicians for this Route alignment survey with proper conveyance. Beside adequate man power advanced survey Instrument such as GPS were also deployed for this survey work. During this Route alignment survey general Terrain condition also studied along with Geographical study. The position of EHV Lines which were not properly shown in the latest upto dated SOI Topo sheet were also identified and properly accounted for crossing. Many new EHV Lines have been erected in this region during last few decades. Similarly new developments were also marked in several parts of the proposed Route. All these were properly considered while studying the feasibility of the route.

Extensive study was conducted at all the crucial areas such as major river crossing, other major crossing points and encroachment of reserved or protected forest area etc. Special attention has been given to avoid any kind of Forest Area and Sanctuaries. All three Alternative Routes have been digitally drawn on latest Divisional Forest Map (Digitized Map) collected from Forest Department to ensure that selected route is passing through minimum Forest. A comparative statement has been prepared for selection of best possible Route. From comparative Statement of all three alternative routes, it is evident that the Alternative Route-I is passing through 1.705 Ha. of Zudpi Jungle as compared Alternative Route-II and Alternative Route-III which are passing through 2.43 Ha. and 10.85 Ha. forest area respectively. Therefore considering, all techno-economical Factor, majorly minimum forest area encountered, Alternative Route-I is selected as Final Route alignment.



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Comparative Statement for 3 Alternative Routes

Sr. No.	Description	Alternative-I (Proposed)	Alternative - II	Alternative -III
1	Line Length	110.85 Km.	109.42 km.	101.40 km.
2	a) Angle Points	68	64	60
3	Forest	Forest area - 1,705 Ha. (Zudpi Jungle and Kuran)	Forest Area- 2.43 Ha. MANGSINGHDEO SANCTUARY (BUFFER ZONE - 15.8 Kms.)	Forest Area - 10.85 Ha. (Reserved Forest)
4	Transportation & Maintenance	Available	Available	Available
5	Power Line crossings (132KV & Above)	11	11	11
6	Railway crossings	3	3	3
7	River crossings	NIL	NIL	NIL
	a) Major	AP24-AP25 (KANHAN RIVER)	AP31-AP32(KANHAN RIVER)	AP23-AP24 (KANHAN RIVER)
	b) Minor	AP28-AP29 (KANHAN RIVER)	AP40-AP41(KANHAN RIVER)	AP31-AP32 (KANHAN RIVER)
8	Air Ports	-	-	-
9	Wild Life Sanctuary Area	NIL	MANGSINGHDEO SANCTUARY (BUFFER ZONE) 15.8 Kms.	NIL
10	NH Crossings	3	3	2
11	SH Crossings	6	7	5
12	Coal Mines	No	No	AP41-AP42-- 4276 MTR
13	Approaches for construction	Sufficient approach is available	Sufficient approach is available	Sufficient approach is available

Forest encountered in Alternative Route-I is less than that of Alternative II and Alternative Route-III and considering all other Techno-economical factors, Alternative Route-I is selected.


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