

## **JUSTIFICATION FOR LOCATING THE PROJECT IN FOREST LAND**

**NAME OF COMPANY : RAIPUR RAJNANDGAON WARORA TRANSMISSION LIMITED**

**NAME OF PROJECT : 765 KV D/C RAJNANDGAON WARORA TRANSMISSION PROJECT**

The Ministry of Power, Government of India has initiated a scheme for development of Transmission System for evacuation of power from various Generating Stations, Transmission of Power from Pooling Stations to Other Grid Stations up to Load Centres and Strengthening of Transmission Network across various States of India.

As a part of this development program, 765Kv D/C transmission system from Rajnandgaon to Warora is proposed for “Additional System Strengthening Scheme for Chhattisgarh IPP’s”.

In this context, the Central Electricity Authority (CEA), Ministry of Power, Government of India has issued the respective approval dated 20<sup>th</sup> April, 2015 under Section 68(1) of Electricity Act, 2003 in favour of the SPV, M/s Raipur Rajnandgaon Warora Transmission Limited for development of the said transmission project.

The crow fly distance between the two ends of the proposed transmission line is about 67.184 kms. There are numerous patches of forests in between these two ends (Rajnandgaon to Maharashtra State Border). All the efforts were made to find a viable route which may involves minimum / least forest land. However it was found that, there is no viable route that could avoid forest land.

Three viable alternative routes were identified and detailed survey was undertaken. The objective of this study was to identify the most suitable route in terms of better construability, minimum ecological impacts, least forest involvement and least social impact.

A detailed comparative statement showing the three alternative line alignment is enclosed as **ANNEXURE – I.**

While forest land could not be avoided, the most suitable alignment is ROUTE – I.

The said Project has great National Importance for evacuating the bottled-up power from power surplus states to power deficit states and will also support to provide additional system strengthening of National Grid.



RAIPUR RAJNANDGAON WARORA TRANSMISSION LIMITED.				
NAME OF THE LINE : 765 KV D/C Warora-Rajnandgaon Transmission Line				
Route STATEMENT				
Sl. No.	DESCRIPTION	Route-I	Route-II	Route-III
1	Route Particulars			
	(i) Bee Line (KM)	194.498	194.498	194.498
	(ii) Length (KM)	266.303 Km	268.309 Km	274.997 Km
	(iii) Angle Points	110	123	140
	(iv) Terrain	Plain Terrain- 90% Hilly / Undulation terrain- 10%	Plain Terrain- 90% Hilly / Undulation terrain- 10%	Plain Terrain- 85% Hilly / Undulation terrain- 15%
2	Environmental Impact	NA	NA	NA
	(i) Houses within R.O.W.	No house falls within ROW corridor.	No house falls within ROW corridor.	No house falls within ROW corridor, but close to populated areas.
	(ii) Tree/Crop and its extent of damage	Damage to crops in wet cultivation area is un avoidable during cultivation season. There are certain scattered Paddy area, wheat, Soyabeen, Sugarcane etc., Some scattered trees Babool, Bair, Mango, bearing trees Gullar, Kaitha, Mahuwa, etc. and some avenue trees along the State Highways, National Highways, and trees in forest areas are required to be cut, in fact damage to tree are comparatively less in this alignment.	Damage to crops in wet cultivation area is un avoidable during cultivation season. There are certain scattered Paddy area, wheat, Soyabeen, Sugarcane etc., Some scattered trees Babool, Bair, Mango, bearing trees Gullar, Kaitha, Mahuwa etc and some avenue trees along the State Highways, National Highways, and trees in forest areas are required to be cut, in fact damage to tree are more comparatively to Route - I alignment.	Damage to crops in wet cultivation area is un avoidable during cultivation season. There are certain scattered Paddy area, wheat, Soyabeen, Sugarcane etc., Some scattered trees Babool, Bair, Mango, bearing trees Gullar, Kaitha, Mahuwa etc and some avenue trees along the State Highways, National Highways, and trees in forest areas are required to be cut, in fact damage to tree are more Comparatively Route - I & II Alignment.
	(iv) Forest involvement	Most of the forest involved are of Zudpi Jungle, Reserve Forest & Protected Forest catagery. No Scantuary, Eco-Sensetive Zone, Buffer Zone, Biosphere is involved in this alignment.	Route passing by 32 km through Eco Sensitive Zone & Sanctuary reserve forest	Most of the forest involved are of Zudpi Jungle, Reserve Forest & Protected Forest catagery. No Scantuary, Eco-Sensetive Zone, Buffer Zone, Biosphere is involved in this alignment.
	a) Length of forest area	47.272 Km	30.596 Km	54.526 Km
	(i) Reserved Forest	24.711 Km	16.035 Km	36.067 Km
	(ii) Protected Forest	16.733 Km	9.229 Km	12.488 Km
	(iii)Open Forest	5.827 Km	5.332 Km	5.971 Km
	d) Type of Fauna & Flora			
	Flora			
	Fauna	Dear, pig, etc.	Dear, pig, etc.	Dear, pig, etc.
	e) Endangered Species if any	Nil	Nil	Nil
	f) Historical/ cultural monuments	Nil	Nil	Nil
	g) Details of Tribal areas if any	Nil	Nil	Nil
3	Details of Crossing			

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Route STATEMENT				
Sl. No.	DESCRIPTION	Route-I	Route-II	Route-III
	<b>a) Nos. Railway Crossing</b>	4	4	4
	<b>b) Nos. NH Crossing</b>	1 ( NH-6)	1 ( NH-6)	1 ( NH-6)
	<b>c) Nos. River Crossing</b>	Wain Ganga River	Wain Ganga River & Chulband river	Wain Ganga River & Gadhi River
	<b>d) Nos. Power Line Crossing:</b>	11	14	15
	(i) 765 kV T/L	2	2	2
	(ii) 400 kV T/L	4	4	8
	(ii) 220 kV T/L	2	2	2
	(iv) 132 kV T/L	3	6	3
4	<b>Compensation cost</b>	Crop compensation is required to be paid during cultivation season. The compensation is also required where tree cutting is envisaged involving some Tamarind etc.	Crop compensation is required to be paid during cultivation season. The compensation is also required where tree cutting is envisaged involving some Tamarind etc.	Crop compensation is required to be paid during cultivation season. The compensation is also required where tree cutting is envisaged involving some Tamarind etc.
5	<b>Construction problems</b>	Right way problems are less due to less forest area, minimum undulation area, less damage of trees/corps, easy accessibility to move locations compare to Route II & III.	Right way problems are moderate due to higher density of the tree cover in the forest area, minimum undulation area, higher damage of trees/corps, moderate accessibility to move locations.	Right way problems more as the line is passing through populated area and forest area. The undulation area is more, higher damage of trees/corps, difficult accessibility to move locations.
6	<b>O&amp;M problems</b>	O&M problems are comparatively less in this alignment due to more approach roads compare to Route II & III.	O&M problems are comparatively moderate in this alignment due to improper approach roads.	O&M problems are more in this alignment due to less availability of approach roads.
7	<b>Approaches along the Route</b>	Moderately Good	Good	Not Good
8	<b>Recommendations</b>	<i>This alternative route having minimum Route Length, Minimum Major Crossing well connected by road network which makes it convenient for construction and maintenance of T/L.. The said route has no wildlife sanctuaries, biospheres, ecosensitive zones. This route has less vegetation compare to other routes. Hence, this alternative route is feasible, economical, environment friendly and being recommended for approval.</i>	This alternative route is <i>uneconomical &amp; unfeasible</i> due to more route length and more Highvoltage Line Crossings, higher tree cover, involvement of Wildlife Sanctuary, ecologically sensitive, More ROW issues, More sensitive in terms of naxalite activities. Hence the route is discarded.	This alternative route is <i>uneconomical &amp; unfeasible</i> due to involvement of higher forest area, higher tree cover, more ROW, Road Crossings, Highvoltage Line Crossings. More sensitive in terms of naxalite activities. The Route length is more as compare to Route I & II. Hence the route is discarded.

