

Justification for locating the project in the forest area:

Line No. – 1 :-

The Length of the transmission Line-1 is Km 15.578 covering 42.099Ha area which includes R.F/P.F , Revenue Forest 8.161 Ha and non-forest land 33.938Ha. The number of angle points (AP) are 45 and 46. numbers of tangent(TTP) & tower (TP) points to be erected. This line is passing through Hilly area and in undulated land. The estimated cost is Eleven Crores. **It also involves 8.161 Ha forest area out of 42.099 Ha required for this line.**

Line No. – 2 :-

The Length of the transmission Line-2 is **11.243 Km.** ,Covering **30.349** Ha area which includes Revenue Forest **7.184** Ha and non-forest land **23.164** Ha. The number of angle points (AP) are 30. and (76) Seventy Six numbers of tower to be erected. This line is passing through mainly in plane area. The estimated cost is 97508868. (Rupees Nine Crore Seventy Five Lakh Eight Thousand Eight Hundred Sixty Eight) only. **It also involves 7.184 Ha forest area out of 30.348 Ha land required for this line.**

Line No. – 3 :-

The Length of the transmission Line-3 is 9.900 Km. ,Covering 27.793 Ha area which includes Revenue Forest **7.749** Ha and non-forest land 20.044Ha. The number of angle points (AP) are 24 and (85) Eighty Five numbers of tower to be erected. This line is passing through mainly in plane land. The estimated cost is 10.5(Ten crores Fifty Lakh). **It also involves 7.749 Ha forest area out of 27.793 Ha required for this line.**

Justification for selecting Line 2 :-

Odisha Power Transmission Corporation Limited (OPTCL) is a Govt. of Odisha undertaking organisation. This proposal is formulated to supply power from Brajarajnagar to RTSS,Belpahad in Jharsuguda district, Odisha over a distance of 11.243 KM. This **line-2** is a 132 KV DC (4 conductor) line, which emanates from 132/ 33 KV grid sub-station at Brajarajnagar and will be connected to Belpahad substation (RTSS) at Belpahad. During the walk-over survey of the Line, three alternative Lines were identified. After avoiding reserve forest, dense vegetation, human habitation, forest plantation and dense village forest, Line No.2 is suitable with involvement of barest minimum forest land covering an area of **7.164 ha**. The comparative statement of the forest area and other information involved for alternative Lines are given in **TABLE - A**.

Unlike roads, EHT Transmission line can't take frequent turn because of limitation of maximum 60° turn and other technical constraints. The project will supply electric power to the traction substation, which will result in plying locomotives through electric power instead of conventional diesel fuel. This will save huge quantity of mineral oils and will help in preserving the depleting oil sources. The main advantages in the electric traction system are: Ease in control, wide range of flexibility in speed & control, high power-to-weight ratio, less pollution, no use of non-renewable fuels, less cost in running and faster acceleration.

Further, electric locomotives use a unique system of 'regenerative braking', where the kinetic energy of the train is converted during braking to electrical energy and pushed back into the system. Besides, supply at EHT voltage will also ensure uninterrupted power supply to the railway station, which will prevent undesirable power supply outages and inconveniences to the passengers. Uninterrupted power supply will also help railway authorities to provide better amenities in the station such as lift and escalators, purified drinking water system etc.


(Satyabrata Rout)

Above signature of Sri Satyabrata Rout is attested