

**COST BENEFIT ANALYSIS (Combined for All 03 Forest Divisions)****BENEFIT FROM THE PROJECT**

765 KV D/C Jharsugudato Dharamjaygarh Transmission Line II will provide following benefit considering life time of 30 years

S/N	HEAD	QUANTITY	UNIT RATE (In Rs)	TOTAL BENEFIT (In Crores)
1	Cost of the power transmission charges in life of 30 years. (4200 MW x 365 Days x 24 Hours x 30 Years) x $10^3$ - (3% Transmission loss)	$11.03760 \times 10^{11}$ Unit	Rs 0.30 / Unit	32119.42
2	Employment generated during construction for a period of 1.5 years. (365 Days x 1.5 years x 310 Persons per day)	169725 Man Days	Rs 309 / Day	5.24450
4	Employment generated during operational life of 30 years. (365 Days x 30 years x 10 Persons)	109500 Man Days	Rs 500 / Day	5.47500
5	Development of industries, Agriculture and other field in 30 years	L/S (3 times of transmitted power)	Value judgement	96358.26
A	Total benefit from the project in crores rupees ( 1+2+3+4+5)			128488.40
B1	Cost of the project (Line) approx @ 3.50 crores per KM for 104.128 Kms	Rs. 3.5 Cr.	Per Km	364.4480
B2	O & M Cast for 104.128 Km Line @ Rs 1.25 Lakhs per annum per Km i.e. (104.128x1.25x30)	Rs. 1.25 Lakhs	Per annum	39.0480
B3	Annual depreciation of Transmission Line = $30 \times$ (Net value of Line/Estimated life of Line) Total cost of Line = 364.448 Cr. Estimated life = 30 Years Scrap value at the end of 30 years of life (10% of cost) = 36.4448 Cr. Net Value (Cost of Line - Scrap Value) = 364.448 - 36.4448 = 328.0032 Cr. Annual Depreciation = $328.0032/30 = 10.93344$ Cr. / Year			328.0032
B4	Annual interest on capital diminishing annually = $(0 + \text{Net Value}/2 \times .09)$ $= 0 + 328.0032/2 \times 0.09 = 14.760144 \times 30 =$	Rs. 14.76	Cr. /Year	442.8043
B5	Total losses in forest due to this project in crores of rupees i.e. approx (Raigarh 69.9127, Dharamjaygarh 43.39028 And Korba 12.0945)			125.39748
B	Total losses i.e ( B1+B2 +B3+B4 )			1299.7010

C Cost Benefit Ratio i.e Project Benefit (A) /Forest Loss (B)

98.86

i.e. ~ 99

Hence the project has very high benefit to the country as compared to forest loss, The benefit to loss ratio is approximate 99 Times

POWERGRID  
RAIGARH

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