

COST BENEFIT ANALYSIS

Cost Benefit analysis for 765 KV S/C Champa Dharamjaygarh Line of Chhattisgarh WR Transmission Limited in Chhattisgarh State is as given below –

(A) Abstract of Financial benefits from the project:

SI No	Description of Items	Financial Benefits (in Crores of Rupees)
1	Revenue from Transmission Line for Chhattisgarh Portion of the line for 20 Years*	Rs. 324.20 Crores
2	Net Present Value to Govt of India **	Rs. 1.74 Crores
3	Compensatory Afforestation Charges ***	Rs. 0.96 Crores
	Total Financial Benefits	Rs. 326.90 Crores

* The total length of this transmission line is 51.018 km, which is a part of Chhattisgarh WR Transmission Limited. The annual revenue attributable to this line is Rs. 16.21 crores.

** Net Present Value of the Forest Land under diversion at the present rate of Rs. 7.30 Lacs per Ha born by the Project, works out to be Rs. 1.74 Crores for 22.182 Ha Forest Land (Open Forest)

*** Compensatory Afforestation Charges for the area of 22.182 Ha as per the estimate of Rs. 4.00 Lakhs/Ha: Rs. 0.96 Crores.

Employment Potential: Employment generation from the project will consist of direct employment, i.e. technical, commercial, managerial & indirect employment for period of 20 years from starting of the project. Technical, commercial & managerial activities will required. The employment generation potential during the construction stage of about two years will be 1500 manpower. During the Operation Stage, the employment generation potential is 10 manpower as direct employment and 50 manpower as indirect employment.

(B) Abstract of Evaluation of Loss of forests:

SI No	Description of Items	Financial Benefits (in Crores of Rupees)
1	Evaluation of Loss of Timber / Fire wood / Bamboo / NTFP *	Rs. 3.00 Crores
2	Human Resettlement *	Nil
3	Loss of fodder **	Rs. 0.60 Crores
4	Loss of Public facilities	Nil
	Total	Rs. 3.60 Crores

* The tree felling will be undertaken over the area under the footprint of Towers and over a width of 3 meters below each conductor bundle for stringing operation. The total number of trees estimated to be affected is 8,000. The loss of timber is estimated at 500 cu.m and Fire wood at 1000 cu.m. There are no settlements on the Forest Land.

** Since actual figures of Fodder Loss were difficult to arrive at, it can be safely assumed that the loss due to fodder would never be greater than Rs. 10,000 per Ha

per year. The calculation is for a period of 50 years for about 50% of the area proposed for diversion.

(C) Abstract of Project Costs:

SI No	Description of Items	Financial Benefits (in Crores of Rupees)
1	Fixed assets, inclusive of investments, Current assets, Loans & Advances	Rs. 104.51 Crores
2	Other Expenditures like preoperative expenses, interests during construction, etc.	Rs. 10.00 Crores
	Total	Rs. 114.51 Crores

Cost: Benefit Ratio

I Cost of Project (including loss of Forest) = (B) + (C)

II Financial Benefits of the Project

Benefit: Cost Ratio = Rs. 326.90 Crores/(Rs. 3.60 Crores + Rs. 114.51 Crores)

= 3.60

