

## COST BENEFIT ANALYSIS

Cost Benefit analysis for Rajnandgaon- Warora Line, estimated for the section 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. 772.42 Crores
2	Net Present Value to Govt of India **	Rs. 0.73 Crores
3	Compensatory Afforestation Charges ***	Rs. 0.40 Crores
	Total Financial Benefits	Rs. 778.55 Crores

\* The total length of transmission line is 266.171 km, out of which the length of Chhattisgarh section is 67.184 km. The revenue of Rs. 154 crores per year has also been proportionately divided and will be Rs. 38.871 crores per year.

\*\* 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. 0.73 Crores for 10.0555 Ha Forest Land (Open Forest)

\*\*\* Compensatory Afforestation Charges for the area of 10.0555 Ha as per the estimate of Rs. 4.00 Lakhs/Ha: Rs. 0.40 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 50 manpower as direct employment and 300 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. 0.10 Crores
2	Human Resettlement *	Nil
3	Loss of fodder **	Rs. 0.25 Crores
4	Loss of Public facilities	Nil
	Total	Rs. 0.35 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 100. The loss of timber is estimated at 15 cu.m and Fire wood at 50 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. 169.31 Crores
2	Other Expenditures like preoperative expenses, interests during construction, etc.	Rs. 20.00 Crores
	Total	<b>Rs. 189.31 Crores</b>

**Cost: Benefit Ratio**

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

II Financial Benefits of the Project

Benefit: Cost Ratio = Rs. 778.56 Crores/( Rs. 0.35 Crores + Rs. 189.31 Crores)

= 4.10

