

COST BENEFIT ANALYSIS

1. PROJECT COST : 376.22 lakhs Approx

2. BENEFITS FROM PROJECT

- a) Capacity of Line (Power transfer capacity) : 1000 MW
(500MW per circuit of 400KV Transmission Line)
- b) Load Factor : 80%
- c) Line Loss : 2.5%
- d) Line Availability : 97.5%
- e) Average cost of energy transfer per unit : Rs. 0.2 per KWH
- f) KWH per year :
 $1000 \times 1000 \times 0.80 \times 24 \times 365 \times 0.975 \times 0.975 = 6661980000 \text{ KWH/Year}$
- g) Transmission Charges/cost of supply per year :
 $0.20 \times 6661980000 = \text{Rs. } 1332396000$
- h) Transmission charges against power transfer in 50 years: 6661.98 Cr.

Net benefit from Transmission system in 50 years : 6661.98 Cr

3. COST BENEFIT RATIO (CB RATIO): $376.22/6661.98 = 0.05647$

The benefit from these Transmission line is more than Rs. 133.2396 Cr per year to the Nation or Rs. 6661.98 Cr. in fifty years if flow of power is continued through this transmission system whereas the cost of project including the compensation against forest area involved and also interest during construction and other misc. expenditure is Rs.376.22 Cr which is very less in compared to profit from this Transmission Line Project. So pay back to period of the project is 2 years. The rest of the period is the profit which is added to the national income.

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SUPERINTENDING ENGINEER
400KV/Construction/TSTRANSCO,
KARIMNAGAR.

countersigned
[Signature]
24/7/2018
Chief Engineer
400KV/Warangal
TSTRANSCO