

COST BENEFIT ANALYSIS

Name of the Project:- 765 kV Double Circuit Jharsuguda (Sundergarh) – Raipur pool Transmission line being constructed by ODISHA GENERATION PHASE-II TRANSMISSION LINE (OGPTL) for Common Transmission system for Phase-II generation projects & immediate evacuation system for OPGC(Odisha power generation corporation) of 1320 MW projects in Odisha.

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| 1. Project Cost | : Rs 1046 Cr. |
| 2. Benefits from Project :- | |
| a) Power Transfer Capacity of the line | : 5000 MW (for 765 KV D/C line) |
| b) Power to be transferred | : 2400 MW |
| c) Load factor | : 80% |
| d) Line loss | : 1.8% |
| e) Line Availability | : 98.8% |
| f) Average cost of energy transfer per unit | : Rs 0.2 per kwh |
| g) KWH per year | : $2400 \times 5000 \times 0.8 \times 24 \times 365 \times 0.988$ = 83086848000 KWH/Year |
| h) Transmission charges/supply cost per year | : 0.2×83086848000 = Rs 166, 17,36,9600 = Rs 166 Cr/year |
| i) Operational Cost & Interest charges per year (Manpower/Line maintenance etc.) | : Rs 10 Cr/year |
| j) Net Transmission charges per year (h-i) | : 156 Cr/year |
| k) Transmission Charges against power transfer In 35 years | : 156×35 = 5460 Cr |
| Net Benefit from Transmission system in 35 years | = 5460 Cr. |
| 3. Cost Benefit Ratio | = 1046:5460 = 1: 5.0 |

The benefit from the transmission line is more than Rs 1046 Cr per year to the nation or Rs 5460 Cr in 35 years if flow of power is continued through this transmission system whereas the cost of project including the compensation against forest area involved, interest during construction and other miscellaneous expenditure is Rs 1046 Cr which is very less compared to Profit from this transmission line project.

