

Full Title of Project: Diversion of 19.6587 Ha (Division wise – 1. Prayagraj – 14.8394 Ha, 2. Fatehpur – 2.1504 Ha, Kanpur Nagar – 0.3456 Ha, Kanpur Dehat – 0.8064 Ha, Auraiya – 0.1024 Ha, Mainpuri – 1.4145 Ha) of forest land for laying of 765Kv Single Circuit Manpuri – Bara ckt-1 by South East U.P. Power Trans. Co. Ltd.

Proposal No. – FP/UP/TRANS/15538/2015.

Date of Proposal: 21/09/2015.

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COST BENEFIT ANALYSIS AS PER GUIDELINES ISSUED UNDER FOREST (CONSERVATION) ACT 1980 IN PRESCRIBED FORMAT, WHENEVER APPLICABLE

1. Project Cost – INR 627.6 Cr.
2. Benefits from project :-
 - a) Capacity of line (Power Transfer Capacity) : 2250 MW (For 765 kV S/C line)
 - b) Load Factor : 80%
 - c) Line Loss : 2.5%
 - d) Line Availability : 98%
 - e) Average cost of energy transfer per unit : INR 0.25 per kWh.
 - f) KWH per year : $2250 \times 1000 \times 0.8 \times 24 \times 365 \times 0.98$ = 1545264000 kWh / Year
 - g) Transmission charges / cost of supply per year = 0.25×1545264000
= INR 386,31,60,000
= INR 386.316 Cr/Year
 - h) Operational cost & Interest charges per year (Manpower / Line Maintenance etc.) : **54 Cr/Year.**
 - i) Net Transmission Charges/cost of supply per year (g-h) = 332.316Cr. / year.
 - j) Transmission Charges against power transfer in 35 years= 332.316×35
= Rs. 11,631.06 Cr.

Net benefit from Transmission System in 35 years : 11631 Cr

3. Cost Benefit Ratio : $627.6 : 11631 = 1:18.533.$



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