

PROPOSAL FOR DIVERTING FORESTLAND FOR CONST OF 400 KV D/C JEJURI HINJAWADI LINE

Calculation of various parameters of cost benefit assesment for forest proposal of 400 KV D/C Jejuri - Hinjawadi line.

<u>Parameter-1 (To be quantified)</u> 1.Maximum capacity of Double circuit line to transfer power 2.Energy transfer annually = 3.Transmission losses 3% = 4.Net energy transferred = 5.Rate of power tariff = 6.Total power tariff for energy transfer per year =	600 X 2 = 1X1200X24X365 = Rs. 3.00 per unit 10196640 X 3.0=	1200 MW 1,05,12,000 MWH (-) 3,15,360 MWH 1,01,96,640 MWH Rs.3059 Crore
<u>Parameter-2 (Value judgement)</u> <u>Benefit to economy</u> <u>a) Increase in irrigation area</u> 1.Energy transfer = 2.Energy utilised for irrigation purpose = 3.Units consumed per Ha. By 10 H.P. pump per annum = 4.Total area increased = 5.Monetary benefit for irrigation per Ha. Per annum due to saving in labour cost due to availability of electricity = 6.Therefore , monetary benefit for 103313 Ha.=	 6% X 10196640 6.76 KW X 12 X 365= 3058992/29608.80 = Rs.2790/- per Ha. Rs.2790 X 103313=	 1,01,96640 MWH 6.11.798 MWH 29,608.80 20,663 Hectare Rs. 5.76 Crore
<u>b) Increase by food production (Value judgement)</u> 1. Increase in food production per Hect. Per year 4.65 Ton approx. 2. Therefore, increase in food production in 20,663 Hect. = 3. Minimum cost of produced food per Ton = 4. Therefore total cost increase in food production =	 4.65 X 20,663 = Rs. 2000/- per Ton Rs. 2000 X 96,081.66 =	 96081.66 Ton Rs. 19.22 Crore
<u>c) Benefit to New Industries (Value judgement)</u> 1. Industrial share of energy = 69% of 1,01,96,640 MWH = 2. Share of New Industries = 3% of New Industries 3. Therefore, power served to New Industries = 4. Benefit to New Indutries due to this power@Rs.6/- per unit of the energy supplied per annum =	 70,35,682 MWH 3% X 70,35,682 = 2,11,070 MWH X 6.00 =	 2,11,070 MWH Rs 126.64 Crores
<u>Parameter-3 (Value judgement)</u> Population benefit Population based on beneficiary Increase in population in last 10 year = 10% Total population benefit = Considering 6 member in one family, Total benefit families = Total benefit to population =	 10 Lakh 10/6 = Rs.600/- X 1.67 =	 1.67 Lakh Rs. 10 Crore
<u>Parameter-4 (Value judgement)</u> Employement potential <u>a) Direct</u> 1. Daily 2000 mandays for one year = 2. Benefit for employment@Rs. 75/- per MD X 2200000 =	 2000X365 = 730000 say 7.3 Lakhs MD approx. Rs.75 X 730000 =	 Rs 5.48 Crore
<u>b) Indirect (Agriculture Sector)</u> 1. Out of total population of 1 crore, the labour recruitment generated per day in agriculture sector = 2. Therefore, total mandays invested in agriculture sector 2 lakhs X 20 working days = 3. Benefit for employment in agriculture sector@Rs. 75/- per MD =	 2 Lakh 40 Lakh mandays Rs.75 X 40Lakh =	 Rs. 30 Crore
<u>c) Direct (Industries sector)</u> 1. Out of total population of 1 crores, the labour recruitment generated in Indutries sector per day is 45,000 approx. 2. Therefore total MD invested in Industrial sector per year = 45000 X 365 = 3. Benefit for employment in Indutrial sector @ Rs.75/- per MD X 164.25 Lakh =	 16425000 say 164.25 Lakhs Rs. 12,318 Lakhs =	 123.18 Crore