

**Const -benefit analysis as per the guidelines issued under forest
[conservation,Act.] when ever required.**

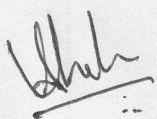
Name project:- 66KV Savdas na Muvada to Rajayata S/C H-frame Line with ACSR Panther Conductor.

COST BENEFIT ANALYSIS

1) Increasing in productivity average load in line.	8MW (66/11 kV -10MVA X 1=10MVA)
Power Transfer (Annual)	$8 \times 365 \times 24 = 70080$ MWH
Cost of energy Sales.	0.5/KWH
Total energy sells	RS. 35040000.00
Increase in procutivity due to 66KV Khanpur-Ditvas s/C H-frame Line	70080 MWH Equivalent to Rs.35040000.00
2) Benefit to economy	
a) Direct Benefit	Rs. 3.50 Crore
b) In direct Benefit.	Assuming 70% of total energy used for agriculture and irrigation work and 30% of energy of used for Industrial purpose.
Energy available for irrigation and agriculture 35%	5600 K.W.
Total no. of pump sets (5 HP) which can be energized with , available for irrigation and agriculture purpose.	$5600/5 \times 0.735 = 1524$ Pumps
Each pump set shall add 0.88 Ha. Of irrigated area and 4.55 Tonnes of food production/ Year.	$1524 \times 0.88 = 1341.12$ Hactor LA.
Increase in irrigation area.	
Cost of irrigation/LA by electrical pump set.	Rs. 3000/- per Hactor LA..
Irrigatiopn Cost (Annual)	$3000 \times 1341.12 = \text{Rs.}4023360.00$ i.e 40.23 Lakhs.
Increase in Food production (Annual)	$1524 \times 4.55 = 6934.20$ Tonnes
Cost of Addition Food Produced (Annual)	$6934.2 \times 12000 = \text{Rs.}83210400.00$ i.e Rs. 832.10 Lakhs.
Energy available for industrial and domestic use.	2400 K.W.
Benefit of Industries	$2400 \times 24 \times 365 \times 1 = \text{Rs.}21024000.00$ Say Rs.2.10 Crore
No. of Population benefited energy available annual.	70080KWH
Per Capital consumption in the Gujarat State.	522.28KWH (Standard)
No. of Population benefited (Annual).	$70080 \times 1000 / 522.28 = 1.34$ Lacs
4. EMPLOYMENT POTENTIAL	
Direct	70080 KWH Equivalent to Rs.350.40 Lakhs
Indirect	Norms: Each 5 HP connection shall add. 288 and 968 man days of employment in the agriculture and industrial sector respectively.
Increase in employment potential	Agriculture Sector: $288 \times 5600 / (5 \times 0.735) = 4.39$ Lacs mandays equivalent to 3.504Crore Industrial Sector: $968 \times 2400 / (5 \times 0.735) = 6.32$ Lacs Mandays equivalent to 2.10 Crore.

Note. Rs. 20/- mandays agricultural
Rs. 231/- mandays industrial.

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