

**Full Title of the Project: Construction of 33/132 kV Sub-Station Barshani
(Manikaran) in Distt. Kullu.**

File No. : _____

Date of Proposal: _____

CHECK LIST SERIAL NUMBER: 29

Cost Benefit Analysis

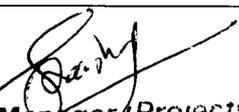
S.No	Parameters	Roads, Transmission lines & Railway lines	Minor Projects	Irrigation/hydro electric Projects & others
1	Increase in productivity attributable to the specific project	N/A	N/A	Availability of the power in the Northern grid will increase substantially and this will have a positive impact on the industrialization and agricultural activities.
2	Benefits to economy	N/A	N/A	<p>➤ To the country:</p> <p>i. Better power availability for industrial commercial and domestic use</p> <p>➤ To the state of Himachal Pradesh</p> <p>i. Enhanced infrastructure through capital investment in infrastructure</p> <p>ii. Utilization of un-harnessed potential</p> <p>iii. Safety of forests as there will be single evacuation system for all the projects coming in the area.</p> <p>iv. Lesser transmission losses, as the electricity will be transmitted through extra high voltage line.</p> <p>v. Wheeling charges from the IPPs who wish to transmit their power through open access.</p> <p>About 60 MW of power will be evacuated through this substation @ Rs 2.91 per unit with 45 % PLF per year, which works out to the tune of Rs $60,000 \times 24 \times 365 \times 45 \times 2.91 = 68.827$ Crores per year.</p>
3	No of population benefited	N/A	N/A	Specifically Kullu, Manali and lahoul areas of Himachal Pradesh/ states under northern grid.
4	Employment potential	N/A	N/A	Approximately 50 to 100 people in various capacities will be employed during construction of the sub-Station. About 25 No. of engineers, technicians and

				supporting field staff will be retained after the construction for maintenance and operation of this line and controlling point. Besides a large no of people running mechanical work shops, spare part dealers will gain business because of the construction of this substation.
5	Cost of acquisition of facility on non forest land wherever feasible	N/A	N/A	N/A
6	Loss of a) agricultural and b) animal husbandry production due to diversion of the forest land	N/A	N/A	Neither such agricultural nor animal husbandry operations are being undertaken in the land coming in the alignment of the transmission line. (Nil in view of the above)
7	Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement	N/A	N/A	No family or person is being displaced because of the construction of this transmission line. (Nil in view of the above)
8	Cost of supply of free fuel wood to workers residing in or near the forest area during the period of construction	N/A	N/A	No worker will reside in the forest area as this is not permissible under the Forest Conservation Act 1980 and the workers will be provided with LPG connections in the mess canteen to be set up in the residential areas (Not applicable in view of the above)


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PARAMETERS FOR LOSS OF FOREST

S.No	Parameters	Roads, Transmission lines & Railway lines	Minor Irrigation Projects, quarrying of stones/metals	Medium & major Irrigation, hydro electric, large mining & <u>other mic.</u> Projects
1	Loss of value of timber , fuel wood and minor forest produce on an annual basis including loss of man hours per annum of people who derived livelihood and wages from the harvest of these commodities	N/A	N/A	10 % of the cost of trees
2	Loss of animal husbandry productivity including loss of fodder	N/A	N/A	There are no animal husbandry operations existing or proposed in the area under consideration (Nil in view of the above)
3	Cost of human settlement	N/A	N/A	No human relocation is involved due to this project (Nil in view of the above)
4	Loss of public facilities and administrative infrastructure (roads , Buildings, schools , dispensaries ,electric line railway line etc) on forest land if these facilities are diverted due to the project.	N/A	N/A	No public facilities and administrative infrastructure (roads , Buildings, schools , dispensaries ,electric line railway line etc) is coming in the alignment of the project. Hence there is no question of loss of facilities or there is diversion in the forest land (Nil in view of the above)
5	Environmental losses (soil erosion, effect on hydrological cycle , wild life inhabitat microclimate upsetting of ecological balance)	N/A	N/A	Total area for diversion 0.6800 hectare Assumed Forest density=1. Envoirement loss per year @ 126 Lac/ hectare to accrue over a period of 50 years=76.32 lacs. Benefit to the economy= 6,57,000 lacs Since this Project will yield much more returns to the government and it will give a positive cost benefit ratio Negligible in view of the above
6	Suffering of ousters	N/A	N/A	No family /person is being displaced on account of construction of the project. In view of this there is no suffering to ousters. Nil in view of the above


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