

POWERGRID CORPORATION OF INDIA LIMITED
(A Govt. of India Enterprise)

Annexure- VI (a)

COST BENEFIT ANALYSIS

Name of the Project - 765 kV D/C Chilakaluripeta to Kadapa Transmission line Associated with PSITSL "Beyond Vemagiri" Transmission System Project under TBCB route of Power Grid, Southern Region Transmission System-I.

- | | |
|--|---|
| 1. Project Cost | : Rs. 635 Cr |
| 2. Benefits from Project | |
| a) Capacity of line (Power Transfer Capacity) | : 4500 MW |
| b) Load Factor | : 80 % |
| c) Line Loss | : 2.5 % |
| d) Line Availability | : 99.0 % |
| e) Average cost of energy transfer unit | : Rs 0.2 per KWH |
| f) KWH per year | : $4500 \text{ MW} \times 1000 \times 0.80 \times 24 \times 365 \times 0.99$
= 3122, 06, 40,000 KWH/year |
| g) Transmission Charges / Cost of supply per year | : $\text{Rs. } 0.20 \times 3122,06,40,000$
= Rs. 624.412 Cr/year |
| h) Transmission Charges against power transfer in 50 years | : Rs. 31220.64 Cr |
| Net benefit from Transmission system in 50 years | : 31220.64 Cr |
| 3. Cost Benefit Ratio (CB Ratio) | : $635/31220.64 = 0.0203$ |

The benefit from this transmission line is more than Rs. 624.412 Cr per year to the nation or Rs. 31220.64 Cr in fifty 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 misc. expenditure is Rs.635 Cr which is very less in compared to profit from this transmission line project.

Place: Badvel

Date: 24-5-17



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MANAGER/CAO BADVEL
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Annexure- VI (b)

Category of proposal for which Cost-Benefit Analysis is Applicable

Sl. No	Nature of Proposals	Applicable/ Not Applicable	Remarks
1	All Categories of proposals involving forest land up to 20 Ha in plains and up to 5 Ha in hills	Not Applicable	These proposals are to be considered on case to case basis and value judgment.
2	Proposal for defence installation purpose and oil prospecting (Prospecting only)	Not Applicable	In view of National priority accorded to these sectors, the proposal would be critically assessed to help ascertain that the utmost minimum forest land above is diverted for non-forest use.
3	Habitations, establishment of industrial units, tourist lodges / complex and other building construction	Not Applicable	These activities being detrimental for protection and conservation of forest, as a matter of policy such proposals would be rarely entertained.
4	All other proposals involving forest land more than 20 Ha in plains and more than 5 Ha in hills including roads, transmission lines, minor, medium & major irrigation projects, mining activity, railway lines, any other specific installations like microwave stations, auto repair centers, TV towers, etc.	Applicable	These are cases where a cost benefit analysis is necessary to determine when diverting the forest land to non-forest use is in the overall public interest.

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Annexure- VI (c)

Parameters for Evaluation of Loss of Forests

Sl. No	Parameters	Roads, Transmission lines & Railway lines
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 devied livelihood and wages from harvest of these commodities.	NA
2	Loss of animal husbandry productivity, including loss of fodder.	NA
3	Cost of human resettlement	-Nil- There is no human resettlement in this proposal. Hence no cost is involved.
4	Loss of public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines, railways, etc.) on forest land or which would require forest land if these facilities were diverted due to the project	-Nil- There is no loss of public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines, railways, etc.) on forest land under this proposal, hence no loss.
5	Environmental loss- (Soil erosion, effect on hydrological cycle, wildlife habitat, microclimate, upsetting of ecological balance)	NA
6	Suffering to oustees	There are no oustees who are being evicted, hence no loss.

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