Check list No-5B
(Online-FORM-A-PART-I-G (i)

COST BENEFITS ANALYSIS

Project :- Prposal for diversion of **21.6360 Hac**. Forest land for forest clearance for 66KV LILO line for 66kv Jirval sub-station **- 2.1690 Hec**, & 66KV LILO line for 66KV Nandgam sub-station**-7.137Hec**. and 66Kv Astol-Ghanveri line**-12.330Hec** with Dog conductor on D/C Panther Tower line to fed 66kv Jirval,Nandgam and Ghanveri sub-station under TASP scheme-2019-20

Table- B: Estimation of Cost of forest diversion (as per MoEF & CC guideline dated 1st Aug 2017 related to cost benefit analysis)

Sr.No	Parameters	Remarks
1.	**Ecosystem services losses due to proposed forest diversion**	NPV of the forest land being diverted i.e Reserve Forest =21.6360 ha X 9.39 lac = 203.162 lacs Total=**Rs.203.162 lac**
2	**Loss of animal husbandry productivity, including loss of fodder**	Productivity of livestock will not be affected due to construction of transmission line.10% of NPV Applicable i.e. **Rs. 20.31 lac**
3	**Cost of human resettlement**	Since there is no displacement of people due to the project hence there would be no cost of human resettlement.
4.	Loss of public facilities and administrative infrastructure (Road, building, schools ,Dispensaries ,Electric lines, railways, Etc) on forest land which would require forest land if this facilities were diverted due the project.	Not applicable. Since these facilities are not available inside the forest area for proposed diversion. The route/corridor of the Transmission line not affecting any public facilities on diverted forest land.
5.	Possession value of forest land diverted	30% of Environmental costs (NPV) **i.e RS.60.93 lacs**
6.	Cost of suffering to oustees	Not applicable since there will be no displacement of peoples.
7.	Habitat Fragmentation cost	50% of NPV Applicable as thumb rule **i.e Rs.101.55 lac.**
8.	Compensatory afforestation and soil and moisture conservation cost	**Comp.affn.cost Rs.75.726** Lac(Approx.3.5 lac/Ha) soil & Moisture Conservation cost included in comp.Afforestation cost.

Total Loss (Against the proposed forest land diversion)	**Rs. 461.678 lacs.**

Table B- Estimation of Benefit of Forest Diversion in cost benefit Analysis (as per MoEF & CC guideline dated 1st Aug 2017 related to cost benefit analysis)

Sr.No	Parameters	Remarks (For Transmission Line)
1.	Increase in productivity attribute to the specific project	There are 160MW increase in productively attributes to this project (837330 lacs) for 50 Years.
2.	Benefits to economy due to the specific project.	**Rs. 837330 lacs**
3	No. of population benefited due to Specific project	The said Transmission line will bring evacuation of 160MW from Kaparada under Gujarat energy transmission corporation Limited. Due to this new project people in the states of Gujarat will be be befitted
4	Economic benefits due to of direct and indirect employment due to the project	**Rs. 733 lacs**
5	Economic benefits due to compensatory afforestation.	Additional C.A for 43.272ha of degraded forest land @ Rs.3.5 lac/ha for 50 years (As per Guideline issued by MoEF vide letter No.F.No.5-3/2007 FC Dt.05.02.2009) = **Rs.151.452lacs.**
Total		**Rs. 838214.452 Lacs.**

C. Cost Benefit Ratio i.e Project Benefit / forest loss = 1815 : 1

Hence the Project has very high benefit to the country as compared to forest loss.The benefit to loss ratio is approximate 1815 times.

For

Gujarat Energy Transmission Corp. Ltd.

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