

765 KV D/C Lakadia-Banaskantha Transmission Line

COST BENEFIT ANALYSIS

(In accordance with MoEF&CC Guideline dated 1.08.2017)

| Table-B: Estimation of cost of forest diversion: | | |
|--|---|---|
| S. No | Parameters | Cost (Rs. Lakhs) |
| 1 | Ecosystem services losses due to proposed forest diversion (Economic value of loss of eco-system services due to proposed forest diversion has been taken as the "Net Present Value (NPV)" of the forest land being diverted as prescribed by the Central Government i.e. MoEF & CC. NPV rates taken as Rs. 4.38 Lacs per ha under Eco Class IV of Open Density Forest.) | NPV towards for 25.1315 ha of forest land (i.e. 21.2445 ha of RF & SF and 3.8870 ha of forest inside Wild Ass Sanctuary) works out as Rs. 178.18 Lacs . 1. Forest land under RF & SF = 21.2445 ha * Rs 4.38 Lacs = Rs 93.05 Lacs 2. Forest land inside Wild Ass Sanctuary = 3.8870 ha * 5 * Rs 4.38 Lacs = Rs 85.13 Lacs |
| 2 | Loss of animal husbandry productivity (Taken at 10% of NPV) | There will be no loss of productivity of livestock due to construction of transmission line. However as per MoEF guideline same has been taken as 10% of NPV i.e. 17.81 Lacs |
| 3 | Cost of human resettlement | Nil (Since, there is no displacement of people due to transmission line, hence there is no human resettlement due to proposed forest diversion) |
| 4 | Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railway, etc.) on forest land, which would require forest land if these facilities were diverted due to the project | Nil (The route of transmission line not affecting any public facilities and administrative infrastructure) |
| 5 | Possession value of forest land diverted (Taken at 30% of NPV) | 30 % of NPV as per MoEF guideline i.e. Rs 53.45 Lacs |
| 6 | Cost of suffering to oustees | Nil (There is no displacement of people due to transmission line, hence there are no oustees due to proposed diversion) |
| 7 | Habitat Fragmentation Cost (Taken at 50% of NPV) | 50 % of NPV as per MoEF guideline i.e. Rs 89.09 Lacs |
| 8 | Compensatory afforestation and soil & moisture conservation cost (Arrived at Rs.2,00,000/- per ha for double degraded area i.e about 50.01 ha). | Rs 2.0 Lacs/ha for compensatory afforestation and soil & moisture conservation cost = 2.00 Lacs/ha *(25.1315*2) ha = Rs 100.52 Lacs |
| TOTAL COST | | Rs 439.05 Lacs |



Table-C: Estimation of Benefits of forest diversion:

| SL. | Parameters | Benefits (RS. Lakhs) |
|-----|--|--|
| 1 | Increase in productivity attributed to the project | The project is part of transmission system strengthening for relieving over loadings observed in Gujarat intra-state system due to re injections in Bhuj PS. The Project will facilitate evacuation of renewable energy generating from Bhuj- II Dwarka and Lakadia area thereby increase in productivity in industrial sector and improve green power availability. Cost of this line including IDC = Rs 70246 Lacs |
| 2 | Benefits to the economy to the specific project | Rs 70246 Lacs By infusion of Rs 70246 Lacs, various sectors of economy like manufacturing industry, banking, manpower, engineering etc will get benefited. Since, this figure has already been considered in S. NO. 1 above hence not been added to the total benefits. However, this project will definitely improve the Socio economic condition of the region and result in overall economic development of the State. |
| 3 | No. of population benefitted due to specific project | The evacuation of power will help the power generation and distribution companies. Entire region and State of Gujarat will get benefited from the availability of reliable |
| 4 | Economic benefits due to of direct and indirect employment due to the project: | Rs 71250 Lacs During Project Construction Stage , the project will provide employment to 100 Permanent and 2800 Temporary Employment for a period of 18 months. The Economic Benefit is estimated at Rs. 24000 Lakhs (For Permanent Employment, Average Benefit of Rs. 20 Lakhs/Year per person and for Temporary Employment, Rs. 5 Lakhs /year per person) During Operation Stage (Calculated for 35 Years), the project will provide employment to 45 Direct and 90 Indirect Employment for a period of 35 Years. The Economic Benefit is estimated at Rs. 47250 Lakhs (For Direct Employment, Average Benefit of Rs. 20 Lakhs/Year per person and for Indirect Employment, 5 Lakhs /year per person) |
| 5 | Economic benefits due to Compensatory afforestation | = 2.00 Lacs/ha * (25.1315*2) ha = Rs 100.52 Lacs |
| | TOTAL BENEFIT | Rs 141596.52 Lacs |



Cost Benefit Ratio(CB Ratio): Total Environmental & Forests Loss: Project Benefit

Cost Benefit Ratio: Rs. 439.05 lacs : Rs. 141596.52 Lacs

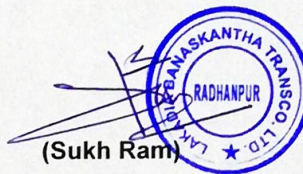
Cost Benefit Ratio: 1: 322.50

Place:

Bhuj

Date:

10/02/2020



(Sukh Ram)

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