

COST BENEFIT ANALYSIS

(As per guidelines dated 01/08/2017 issued by MoEF&CC, Govt. of India)

Full title of the Project: "400 kV D/c Patratu-Latehar Transmission line"

Forest Area (h

126.974

Table - B :- Estimation of cost of forest diversion

Sl. No	Parameters	Cost (Rs. In Cr)	Remarks
1	Ecosystem Services losses due to proposed forest diversion	₹ 15.60	NPV of the forest land being diverted
2	Loss of animal husbandry productivity including loss of fodder.	₹ 1.56	As per FCA guidelines. 10% of NPV Applicable
3	Cost of human resettlement.	₹ 0.00	N.A. 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 & administration infrastructure (roads, building, school, dispensary, electric lines, railways etc.) on forest land or which would require forest land if these facilities were diverted due to project.	₹ 0.00	N.A.. The route/corridor of the Transmission line not affecting any public facilities on diverted forest land.
5	Possession value of forest land diverted.	₹ 4.68	30% of Environmental Costs (NPV)
6	Cost of suffering of outsees	₹ 0.00	Not applicable since there will be no displacement.
7	Habitat Fragmentation Cost	₹ 7.80	50% of NPV Applicable as thumb rule
8	Compensatory Afforestation and Soil & Moisture Conservation Cost	₹ 43.17	Considered @ 17 Lakhs/ ha
TOTAL COST:		₹ 72.81	

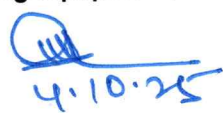
Table C :- Estimation of benefits from Forest diversion

Sl.No.	Head	Benefits (Rs. In Cr)	Remarks
1	Increase in Productively attribute to the specific project.	9,470.26	Power carrying Capacity of Line : 2000 MW
2	Benefit to economy due to the specific project		Estimated benefits: 2000 MW X 35 Yrs X 365 Days X 24 Hrs
3	No. of population benefitted due to specific project	-	Around 1,00,00,000 people shall be benefitted on account of transfer of clean and renewable energy to Load Centees
4	Economic benefit due to direct and indirect employment due to the project.	119.70	During Project Construction Stage: The project will provide employment to 15 Permanent & 600 Temporary employment for a period of 18 months. (Rs 2520 Lakhs) During Operation & Maintenance Phase (for 35 Years): The project will provide employment to 15 Permanent & 36 Temporary employment for a period of 35 years. (Rs 9450 Lakhs) (For Permanent employment avg. benefit of Rs 12 Lakhs/year /person and for temporary employment 2.5 lakhs/year/person).
5	Economic benefits due to Compensatory Afforestation	43.17	Considered @ 17 Lakhs/ ha for twice area proposed for diversion
TOTAL COST:		9,633.13	

C. Total Project Cost in Cr: 200

The project cost includes the complete line cost including equipment, services, etc

D. Cost Benefit Ratio i.e. Project Benefit / Forest loss + Project Cost = 35.31


एस. के. शशि/S.K. Shashi
 उपमहाप्रबंधक/DGM (JCP)
 पावरग्रिड/POWER GRID
 राँची/Ranchi