TRANSMISSION LINE: ENVIRONMENTAL IMPACT ASSESSMENT STUDY

Sl. No.	Project	Voltage
1	**Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.**	220KV

Description of Project:

- **Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.**

Sl. No.	Overall Length	Forestry	Urban Areas	Rural Areas	Voltage
N.A	N.A	N.A	N.A	N.A	N.A

Impact on Forestry

Under the Forest (Conservation) Act, 1980 and the Forest (Conservation) Rules, 1981, proposals for routing transmission lines through forest areas are subject to a detailed and complex system of review and approval. The route for the line is surveyed by staff from OPTCL.

Approval is conditional on the route having a minimum of forest land involved, following consideration of alternatives, and the undertaking of compensatory afforestation.

Width of right-of-way	N.A
Area of forest land affected	N.A.
Use of agreed method for forestry approval	N.A

All the trees would be cut from root level in the 5m corridor below each line conductor. In the balance corridor, tree branches are only to be lopped to attain the specified clearance. Manual clearing techniques rather than chemical herbicides will be used for clearance of the right-of-way and up-keep of the maintenance access strip.

Impact on Remote Areas and Wild lands

Any impact on remote areas does not arise.

The construction will not affect a national park, wildlife sanctuary, natural reserve, biosphere reserve etc.

Impact on Landscape

The route selection has been so decided that that there is no impact on existing landscape.

Soil Erosion

OPTCL will monitor construction activities to ensure that adequate soil erosion control measures are incorporated where necessary and particularly in steeply sloping terrain.

Land Use Impacts

Under Section 10, Part III of the Indian Telegraph Act, 1885, transmission towers can be erected on private land. Ownership of land will not be required. In accordance with the powers conferred under Section 164 of the Electricity Act, 2003, OPTCL can exercise all powers vested in the Indian Telegraph Act, 1885 provided the matter is published in the official Gazette and local newspapers and two months' time is provided for other persons interested to make representation on such scheme.

There will be no loss of access to communities' common resources and facilities.

Towns in route alignment	N.A.

Number of houses within right-of-way	N.A.
Resettlement and rehabilitation needed	N.A
Compensation for loss of crops	N.A
Basis for compensation	N.A

Public Safety

The scheme will comply fully with the public safety requirements specified in the Indian Electricity Rules.

The Rules cover the clearances required between power lines and roads, safety with regard to transporting materials near overhead lines, accessibility of bare conductors, and precautions to be adopted by Electrical contractors and workmen as per I.E. Rule.

In addition, the Rules address safety and protective devices, such as distance protection relays, over-current relays, and Earth fault relays.

Electromagnetic Field

The standards used by OPTCL in respect of phase-to-phase as well as circuit-to-circuit clearances are consistent with practices used for line clearances worldwide. Statutory clearances is within the limits and meets the requirements of the National Electrical Safety Code.

The scheme will comply fully with the vertical and horizontal clearances specified in the Indian Electricity Rules.

Historic and Cultural Sites

The project does not involve interference with any known historic or cultural sites.

Proximity to Airports

Not applicable.

Comment

The basis for selection of the route was -

No National Park, wildlife sanctuary, natural reserve etc. affected.
No house within right-of-way.
No impact on the environment.

This project does not have any adverse environmental impact and the Environmental Impact Assessment study concluded that the overall impact of the project was highly positive.