

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

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O/o The Executive Engineer (Ele.)

B'lore Major Works (S) Division,

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No.EEE/BMWSD/AEE-5/BMRCL/19-20/ **5274**
ENCL:

Date: **5/11/19**

Project: Heightening of existing EHV Electrical Power Transmission Lines of 66 kV class, in the forest land Bearing Sy. No.38, U.M.Kaval, Kengeri-3 Hobli, Bengaluru South Taluk.

Justification for heightening of existing 66kV EHV lines in forest area.

1. Karnataka Power Transmission Corporation Limited (KPTCL) is a registered company under the Companies Act, 1956 and is a company wholly owned by the Government of Karnataka has taken up the work of "Heightening of existing 66 kV single circuit, EHV Electrical Power Transmission Lines in the forest land Bearing Sy. No.38, U.M.Kaval, Kengeri -3 Hobli, Bengaluru South Taluk".
2. M/s.Bangalore Metro Rail Corporation Ltd (BMRCL) is implementing phase-II of the Bangalore Metro Rail Project. One of the lines of this project is extension of this phase is extension of North-South line from Yelechanahalli to Nice Road junction on Kanakapura Road. M/s. BMRCL has proposed construction of a depot in the Sy.No.11 of U.M.Kaval village. The approach to depot is through Sy. No.38 of U.M.Kaval village, which is forest land. The proposed VIADUCT of Metro Rail crosses two 66kV lines existing in Sy. No.38 of U.M.Kaval village. Since the Metro VIADUCT is an elevated structure, the height of the existing 66 kV single circuit, EHV Electrical Power Transmission Lines have to be raised.
3. The existing 66kV B1 & B2 Somanahalli – Subramanyapura overhead lines are critical public utility, passing through forest land in Sy No. 38, U.M. Kaval Village of Bangalore South Taluk, Bangalore at a present existing height of 8.0 Meters from the ground level to nearest bottom most conductor.
4. The proposed construction Metro Rail Track (VIADUCT) requires heightening of present conductor level to 40.0 meters from the ground level for their proposed construction of elevated Rail Track, movement & operation of launching girder and safety clearances.

5. The existing conductor level ranging from 8.0 Meters to 9.0 Meters will be heightened to 12.0 meters to 40.0 meters.
6. The present horizontal configuration of conductor will be converted to vertical delta configuration.
7. The alternatives are explored, and found not feasible, since large extent of the remaining portion of line runs in the urban region with populated areas and fully developed lands and hence it is proposed to heighten the existing towers.
8. The length of line proposed for heightening in the forest area is as under:
 - a) 66 kV B1 Somanahalli-Subramanyapura line : 283.01 Meters.
 - b) 66 kV B2 Somanahalli-Subramanyapura line: 272.56 Meters.
9. The corridor area (width of Right of way) considering 18 meters for 66 kV line as per Guide lines issued vide F.No. 7-25-FC by GOI, MOEF is **Total Forest Area ROW of both 66kV B1 line & 66kV B2 line =0.9518 ha (9518 Sqmtr).**
10. Very small space of 11X11 meters at two locations and 5X5 meters at two locations are required for foundation works. The foundations will be at a depth of 4 and 3 meters **below the ground level.**
11. Since special design Narrow based towers are being used, area at the foot of the tower, above the **ground level** will be 7.5X7.5 meters at two locations and 2.1 meters at two locations.
12. The existing lines proposed for heightening is critical public utility, commissioned and in operation since 1965.
13. The main justification is that the proposed work is limited to heightening of the existing conductor in the existing corridor from its present height ranging from 8 to 9 Meters to 40 meters.
14. The proposed scope of heightening render more scope for vegetation from the present condition and advantageous.


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